
Forum Response:
The Confines of Consecration: A Reply to Critics

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It is enlightening to see how I have been variously construed by my critics, particularly regarding my stance on science. Callicott, Zaleha, and Larson (and perhaps Ivakhiv) take me for a postmodernist (I am not), while Deane-Drummond pegs me as a critical realist (probably correct). Rolston sees me as swinging the pendulum in the opposite direction of my former project to ground environmental ethics in Darwinian 'realities', while Deane-Drummond proposes—again, correctly, I think—that my change in focus constitutes no 'U-turn' (Deane-Drummond, p. 170). (On the whole, Deane-Drummond's opening paragraphs give an accurate portrait of where I stand.) Goodenough, meanwhile, casts me as someone who despairs of being an ape or who prefers to avert her eyes from the vast alien realm beyond our own little planet.¹ In a similar spirit, Zaleha aligns my critique of scientific mythmaking with retrograde superstition that clings to an Earth-centered universe (Zaleha, p. 219)! This avalanche of hyperbole has been triggered by my advancement

1. I assume Goodenough intends her anecdote to have some relevance for me when she tells of a writer who, upon being enlightened by Goodenough about her ape ancestry, suffered a tearful, existential breakdown. (Such tales, incidentally, are a trope among science writers—Dawkins, for example, often recounts letters and phone calls from readers left bereft and diminished by revelations contained in his books.) Goodenough seems to have suffered some such crisis, having once been 'depressed and terrified' by her encounter with the vastness of the cosmos. I suspect that experience has much to do with her powerful attraction to religious naturalism. See Goodenough (2000) as well as her 'Cosmos and Culture' blog post (2010).

of the imminently reasonable claim that science should not be consecrated as a religion and that its truths and realities are not the *only* truths and realities worth celebrating. In the process of transitioning from my previous work to my current project, I have learned the following: when criticizing theologians for their failure to take science seriously, as I previously have, you can expect nods of approval and congratulatory pats on the back from many scholars, particularly scientists, of course, but also philosophers with scientific *bona fides*, such as Rolston and Callicott. But should you point out that some of your colleagues are getting rather carried away in their sacralization of science or a little too emphatic about their role as purveyors of global myths, you can expect to be chided for nurturing a grudge against science and its impersonal (but inevitable) assault on your parochial worldview or charged (if you're a humanist, as surely you are) with envying and resenting the power and prestige of science *vis-à-vis* your marginalized discipline.

Allow me to give a brief account of myself that may dispel (or possibly reinforce) these misperceptions. I began my academic life as a creationist-baiting bioanthropology student with a second major in history and philosophy of science. I dislike hero worship, but if asked to name my early protagonists (hero worship being the prerogative of youth), Carl Sagan and Stephen Jay Gould would top the list. I have owned several telescopes throughout my life and—*contra* Goodenough—am not put off by what Sagan called the vastness of space and the immensity of time.² (Along the way, I have satisfied myself that our planetary system is indeed heliocentric.) I take very seriously Gould's admonitions about the ideological abuses of science and his well-documented parade of the many shocking and edifying illustrations of such abuses in the history of science, especially biology. My affinity for Gould also extends to Rachel Carson and Mary Midgley, who issue similar warnings about hubristic and ideological excesses of science.³

I pursued graduate work in history and philosophy of science, focusing on the history of biology. I left after a year, and following a rudderless interlude, washed up on the shores of a religious studies

2. That said, the *universe* is largely irrelevant to environmental ethics, unless one is looking for another planet to colonize or terraform or studying other worlds in order to understand what runaway climate change can do to a planet.

3. To address Zaleha's question (or rather, his *assertion*) about my 'intellectual forebears', no rabid postmodernists have influenced me; then again, Zaleha's sense of postmodernism is capacious enough to encompass Saudi clerics, anti-vaxxers, and possibly anyone who isn't Richard Dawkins. I suspect my fondness for Gould—a notorious Marxist biologist—or Carson—a possible proto-ecofeminist—would be enough to land me on Zaleha's watch list.

program. I sought refugee status there not because I was fleeing the demanding disciplinary rigors or unsettling scientific realities (or dismal job prospects) entailed in my erstwhile discipline but because these historians and (especially) philosophers of science were, by and large, so narrowly positivist in their view of science, so patently disdainful of religion and the study thereof, and sometimes—in a self-sabotaging way—of the humanities generally, that remaining under their tutelage meant abandoning any serious interest in studying science and religion. I was surprised to find religious studies (at least, at Indiana University) not at all territorial and a great deal more open-minded and genuinely interdisciplinary than the ostensibly interdisciplinary program I had escaped. Never was I advised in my adopted discipline that some topics were off-limits or that certain disciplines, or their methods, did not merit serious scholarly attention. I was not forced to imbibe any Kool-Aid or to forego vaccination of my firstborn son.

My abiding interest throughout has been evolutionary theory and the ways in which it is appropriated, misappropriated, or pointedly or perilously ignored in the broader secular and religious culture. I long ago lost my taste for the sport of creationist-baiting, but the particulars of my educational trajectory have left me with dislike of dogmatic extremes—attempts to turn religion into science (as with creation science and intelligent design, dogmas I explicitly reject⁴), as well as attempts to turn science into a religion (as with what I call the New Genesis). My education has also put me on guard against academic endeavors that fulfill the letter but not the true egalitarian spirit of interdisciplinarity.

Now to the criticisms. The conflationism of my proposed category of the New Genesis seems to be a common concern. It is tempting here to echo E.O. Wilson's rejoinder to critics of *Consilience*. Anticipating (rather too eagerly) that critics will charge him with 'conflationism and simplism', as well as a host of other hissing *isms*, Wilson pleads 'guilty, guilty, guilty'—adding dismissively (as I never would), 'Now let us move on' (Wilson 1998: 11). But am I actually guilty—as Wilson is—of conflationism and simplism? Deane-Drummond sees my constellation of the New Genesis as a 'gross oversimplification' of the true diversity and plurality that characterizes these thinkers (p. 147). Tucker objects not only to my lumping them together but also to my seemingly crypto-Judeo-Christian labeling of them as 'The New Genesis' (pp. 206-207).⁵ I

4. See my co-authored white paper critiquing intelligent design (in Crouch, Miller, and Sideris 2006).

5. I used the term 'New Genesis' here in lieu of categorizing these projects collectively as 'New Story' movements, which seemed to me generic enough but was deemed objectionable by followers of Berry. Hence, I was asked to apply a new label

am frankly surprised that my critics find it surprising that I regard these cosmic narrators as forming a recognizable constellation, an ideal type—for I am certainly *not* the first to recognize them as such. Callicott has treated many of these thinkers as collectively expositing the Epic of Evolution; specifically, he constellates Berry, Swimme, Tucker, Grim, and Rue, and suggests that ‘on the terrestrial scale’, Wilson mines a similar vein of spiritualizing and aestheticizing science (Callicott 2002: 168).⁶ Dowd not only groups them together but, as I recently discovered, gives them a name that is particularly apropos. Following a lengthy quote from Rue—as much a hero to Dowd as is Thomas Berry—Dowd characterizes the movement as follows:

Big History is the 13.8 billion-year, science-based tale of cosmic genesis ... [It] goes by many names. Harvard biologist Edward O. Wilson referred to it as the ‘epic of evolution’. Thomas Berry and Brian Swimme celebrated the evolutionary journey in a 1992 book titled *The Universe Story... Big History* (by whatever name) is *the new Genesis*’ (Dowd 2014: 3, emphasis mine).

Rue similarly treats the Epic of Evolution and Universe Story movements as one (2005), as do Barlow⁷ and Swimme (1998). Now, I grant that these groupings of the New Genesis appear to leave two potential outliers, namely Tucker (who seems to celebrate the world religions) and Dawkins (on a mission to ridicule and eradicate them). It seems *counter-intuitive* that a convergence is occurring between Thomas Berry’s closest disciples and the devotees of the world’s most celebrated, or reviled, atheist. That is precisely what makes this movement interesting, and what makes my argument worth a hearing. When someone like Dowd—well-versed in science and religion—draws inspiration from and pays tribute to Berry and Dawkins in equal measure, is he merely confused (or impossibly eclectic) in his choice of mentors? I’m inclined to think that he, and his fellow mythmakers, are onto something. This not to suggest that Dawkins secretly serves as spiritual advisor to Swimme and Tucker’s *Journey of the Universe* (2011); it is, rather, to say that the seeds sown by Berry’s call for a New Story, and nurtured by the rhetoric of enthusiasts like Barlow or Swimme, have quite plausibly (but not inevitably⁸) born fruit as a scientific ‘religion’ of reality that exalts Dawkins as a prophet.

that would not tarnish Berry’s image by associating him with others in this movement. In all of my other writing or speaking on this subject, I use the term ‘new cosmology’ instead.

6. Wilson would be outraged, actually, by Callicott’s portrait of him as spiritualizing a *postmodern* science.

7. See, among many other examples, <http://www.thegreatstory.org/songs.html>.

8. I agree with Deane-Drummond that these myths are not inevitably pernicious. Deane-Drummond alludes to this idea on p. 173.

I do not claim ‘seamless’ continuity among these projects (Deane-Drummond, p. 171) but that they form a pattern indicative of overlapping agendas and elective affinities, and an overarching commitment to mythopoeic science. All are suggestive of a genre that Martin Eger has called the ‘epic of science’—a mode of appropriating science for grand narrative purposes that stretches back at least to Victorian times (Deane-Drummond is again correct that the *New Genesis* is not, strictly speaking, new) and includes such evolutionary synthesizers as Ernst Haeckel and Herbert Spencer and, more recently, Julian Huxley, Eric Chaisson, and Wilson. This genre typically entails an ‘*extension of the “evolutionary paradigm”*’ as far as possible and ‘*unification of the sciences*’ (whether or not the term consilience is invoked) (Eger 2006: 269, emphasis original). Epic science texts revolve around a single story of evolution, but evolution is here ‘*explicated in greater detail than ever before, deepened, unified, extended far beyond biology—“universal”, “cosmic evolution”*’ (Eger 2006: 266). The genre exhibits ‘*flagrant excitement*’ about all that science offers our daily lives, an ‘*eagerness of the authors to spread these insights beyond their own specialized community*’, and even ‘*unabashed calls for a new morality or a new “vision” of the world*’ (Eger 2006: 265-66, emphasis original). *These tendencies*—not merely ‘*too fundamental an attachment to science*’ (Deane-Drummond, p. 172)—give shape to the *New Genesis*. What is novel about the *New Genesis* compared to older forms of epic science is that religion scholars (or ‘*religionists*’) are now getting in the game.

Among my critics who worry about conflationism, few specify in *what ways* these individuals and projects are in fact diverse and distinct—least of all Tucker. (I would think that Tucker in particular would *want* to deflate my supposed conflations; it is odd that she fails to spell out any distinctions.) Callicott suggests that the constellation might be divvied up with an eye to scale. The *Epic of Evolution* and the *Universe Story / Journey of the Universe* operate on ‘*dramatically*’ different temporal and spatial scales—terrestrial and cosmic, respectively (Callicott, p. 154). However, this is not the case. Rue’s ‘*Epic of Evolution*’ narrates a cosmic story that commences with the Big Bang and moves through various stages of the evolution of the *universe*, ending up with a description of modern humans’ capacities for language and technological innovation (2005: 612-14). He characterizes the *Epic* as ‘*synonymous*’ with ‘*“cosmic evolution”*’ and ‘*“the universe story”*’ (Rue 2005: 614). Biologist Ursula Goodenough’s team-taught college course titled ‘*The Epic of Evolution: Life, the Earth, and the Cosmos*’ commences with the Big Bang and moves through seven phases of the universe (*à la* Chaisson). Berry notes in *The Great Work* that ‘*the epic of evolution does present the story of the*

universe as this story is now available to us out of our present experience' (1999: 31) and that 'the story of the universe is now being told as the epic story of evolution by scientists' (1999: 200).

Anyone who doubts that there is much cross-hatching between proponents of the Wilsonian/Dawkinsian-inflected Epic and Berry's Universe Story enthusiasts or that their projects share some common roots and objectives should read Barlow's (1997) *Green Space, Green Time*, a book that ethnographically documents these projects through interviews and informal conversations and captures moments of cross-fertilization and collective visioning—as well as disagreements—among Epic/Universe projects; her interlocutors include Tucker, Grim, Swimme, Goodenough, Rue, and Wilson, among others. Dawkins makes frequent appearances in the book, but not in the actual conversations.⁹ I suspect that my critics are recoiling from my inclusion of Dawkins in this cohort. But note that Dawkins's mythologizing is not restricted to the micro level of the gene, as Deane-Drummond suggests. He has argued that 'Universal Darwinism' holds in the cosmos at large (1983), and he promotes Big History as an antidote to creationism.¹⁰ His book *The Ancestor's Tale* is told in epic form, encompassing a broad sweep of human and nonhuman phylogeny; for that reason, and in light of the book's intimations of religious pilgrimage (Dawkins's template is Chaucer's *Canterbury Tales*), Dowd and Barlow seized upon *The Ancestor's Tale* as the basis for an interactive evolutionary ritual for children.¹¹ In short, the imprint of spiritualized, epic science is discernible in Dawkins's writing as well.

Some of my critics feel that I worry unnecessarily about grand and totalizing projects like consilience or Big History. Ivakhiv suspects that my 'fears' about Big History functioning as a religious-like monomyth are unfounded, because Big History 'lacks the contexts of practice, communal ritual, and so on, of religion' (Ivakhiv, p. 183). Ivakhiv might want to take a closer look at Dowd and Barlow to see the full panoply of rituals, myths, songs, communal practices, 'and so on', that are deployed (frequently in Universalist Unitarian settings, but also Catholic retreat centers) by Big History believers. These include ritual use of 'Universe Story Beads', or 'Cosmic Rosaries', the rehearsing of 'evolutionary

9. Early issues of the journal and reference to its board members can be accessed here: <http://thegreatstory.org/HowGrand.pdf>. A side note to Callicott: there was an Epic of Evolution Society complete with board members, a journal, and inaugural conferences featuring the above-named individuals.

10. See <https://richarddawkins.net/2014/09/the-big-bang-crash-course-big-history-1/>.

11. See <http://www.thegreatstory.org/songs/river-of-life-song.html>.

parables', and celebrations of 'Cosmic Communion' during which 'participants are anointed with "stardust" (glitter) to signify, as Carl Sagan pointed out in the 1980s, that we are quite literally "made of stardust"' (Barlow 2013).¹² Dowd and Barlow have conducted interviews with Big History founder David Christian, who shows no sign of discouraging their mythic and ritual appropriations of his work.¹³

And what of my antipathy for Wilson and consilience? Callicott thinks I vilify Wilson by calling him a 'sociobiologist', as one might sneeringly refer to Heidegger as a 'Nazi'.¹⁴ He (and perhaps Ivakhiv) believe I raise a red flag over what is essentially a legitimate, empirical (nonideological) question—do the disciplines cohere and converge or don't they? Of course, consilience as a call for or description of greater disciplinary dialogue or coherence is not particularly controversial. But that is not how Wilson or many followers see the project. Consilience for Wilson is an enchanting vision—a 'conviction, *far deeper than a mere working proposition*, that the world is orderly and can be explained by a small number of laws' (Wilson 1998: 5, emphasis added). The problem with deep convictions is that they generally are not '*empirical*' things that invite 'more investigation' (Ivakhiv, p. 183) (Note that Ivakhiv misquotes Wilson and me [p. 182] by substituting the word 'hypothesis' for 'metaphysics'.) By his own account—and as Larson correctly surmises about the conservative religious fount of much scientism—Wilson shed his fundamentalist Baptist ties by yielding to an alternative religion, a 'unification metaphysics' that fulfilled his inbred desire for 'religious feelings' (Wilson 1998: 7). This is no mere hypothesis. Before redesigning the entire college curriculum around this speculative but enchanting metaphysics, as Goodenough and Rue urge us to do (with no dissent from Rolston), I want to know much, much more about what proponents mean by human nature: *whose* idea of human nature it is, and what it means to 'ground' our (one) story in science. Thinking critically about such potentially far-reaching and overtly normative uses of science hardly makes me a radical relativist and postmodernist; nor does it constitute a sea change in my understanding of the appropriate role of scientific information.

12. William Grassie, of the Metanexus Institute, is also interested in such ritualization of Big History.

13. For podcasts of these and other interviews, see Dowd and Barlow, 'Inspiring Naturalism'. Online: <http://inspiringnaturalism.libsyn.com/webpage/category/podcasts>.

14. I believe Callicott is ribbing me here with his invocation of Nazis, but his analogy is suggestive, for how forgiving ought we to be—particularly when the perpetrator remains unrepentant?

Flaws inherent in the consilient methodology-cum-metaphysics—the ‘contrasting epistemologies’ of the various disciplines and so forth—are helpfully rehearsed by Larson and Deane-Drummond. I will not repeat them except to say that consilience rooted in Wilson’s conviction that there is ‘intrinsically only one class of explanation’ (Wilson 1998: 297), and that science will gradually inherit territory currently occupied and poorly managed by humanities, is neither possible nor desirable because the disciplines do not all attempt the same thing or look for the same kinds of answers, if indeed we look for (as opposed to probe and problematize) answers at all.¹⁵ The humanities are not bad science (poorly executed attempts at ‘explaining’ reality) any more than *religion* is bad science. A portrait of religion as primitive or nascent science and, conversely, science as religion performed on better tested grounds is assumed by many in the New Genesis movement.

Do my misgivings boil down to a severe case of disciplinary defensiveness? Consilience enthusiasts often assume that skeptics’ objections stem from disciplinary *ressentiment* rather than a perception of the flimsiness of the very idea of a seamless ‘unity of knowledge’.¹⁶ Callicott invokes this trope: ‘a close examination of Sideris’s strange hostility to consilience suggests that it is motivated by disciplinary defensiveness’ (Callicott, p. 159). He opines that humanists should content themselves with serving as handmaidens to science, perhaps providing good PR and flowery language. There is nothing wrong with humanists translating science into beautiful prose if that is their passion; some do so with considerable talent and insight, and thereby increase science literacy among readers. But that is not all we do. Carson, one of the most eloquent ‘poeticizers’ of science (and fundamentally a humanist), radically challenged the arrogance and shortsightedness of the reigning paradigm of science and technology. In place of wonder at the techno-scientific juggernaut of her day, she offered a wholesome, inspiring, and democratically empowering vision of wonder that humbles and tempers rather than recklessly emboldens humans’ pursuit of knowledge (yes, humility and empowerment can coincide; inspiring both of these in her readers was Carson’s great gift). Carson’s wonder takes as its primary object and enduring source of inspiration not science and technology but *nature* itself (with a capital N, if you insist). One’s moral, sensory, experiential, emotional relationship to nature provides a context for

15. For more on this see Rorty (1998).

16. My strange hostility to consilience is shared by many great minds. Two examples are Stephen Jay Gould (2003) and Wendell Berry (2000); other excellent critiques include John Dupre (1998) and Howard Kaye (1999).

evaluating which lines of research *ought* to be pursued, and whether our motivations for doing so are salutary—in light of the greater good that is the natural world. With that context, that prior moral commitment and affective attachment to nature in place, scientific knowledge can undoubtedly further ‘enrich’ our experience of the natural world—as Callicott and Rolston so eloquently attest. Neither I nor Carson would deny anyone that enrichment.¹⁷ Like a dog chasing its tail, science that takes its own pursuits and its own end products as objects of wondrous fascination is powerless to stop and evaluate its activities. This is why Wilson, as cheerleader for consilience and the ‘vaulting ambition’ of science, makes a less than ideal advocate for nature. His Icarian rallying cry for science—‘Let us see how high we can fly before the sun melts the wax in our wings’ (Wilson 1998: 7)—makes great rhetoric for, say, atomic bomb-building, but it serves nature poorly (Sideris 2015).

I suspect it is a futile exercise to mount an emphatic defense of one’s lack of defensiveness, so I won’t try. But note that Callicott’s psychoanalysis of my ‘strange hostility’ to consilience can be turned on him as well. One might speculate—though I never would—that his strange hostility to *religion* is borne of the disciplinary defensiveness of a philosopher whose life’s work is held in ‘undisguised contempt’ (Callicott, p. 159) by fellow philosophers, while warmly applauded by scientists—a philosopher condemned by his institution to share physical and intellectual space with a lower academic lifeform, namely, religious studies.¹⁸ Callicott’s disdain for religion, made manifest in his response to me, makes all the more bizarre Tucker’s (faint) praise of him as someone who ‘has at least studied the world’s religions’ (Tucker, p. 207). Callicott’s study apparently confirms his assessment of them as closed, dogmatic, divisive systems, stubbornly intractable to science and evidence, and dangerous breeding grounds for daily beheadings and other violent atrocities. Such attitudes toward the world’s religions underscore the very resonances—the elective affinities—my work highlights between the science-as-myth/religionization of science industry, with which Callicott expressly aligns himself, and the worldview of Dawkins and his ilk. Callicott’s portrait of religion could be lifted straight from *The God*

17. Note, incidentally, that Callicott and Rolston both call up actual *experiences* of nature—gazing at the Grand Canyon or at a flock of cranes. *Journey of the Universe* is not an actual experience of the universe—if such were even possible—nor are we actually ‘journeying’.

18. So allergic to all things *religious* are philosophers at the University of North Texas that they dub their department ‘Philosophy and Religion Studies’ to avoid giving off the slightest whiff of *religiosity*, or any impression that they might themselves be religious, or see value in the religiousness of others or in the study thereof.

Delusion or other neo-atheist screeds. But he goes further than Dawkins in welcoming these global science-based myths as ‘full service religion’ (Callicott, p. 161)—he and I agree, then, that such repurposing of science is a *raison d’être* of the New Genesis. Callicott’s treatment here of both religion and the humanities and their subordinate status does a better job than I could of illustrating what is potentially (not inevitably) intolerant, arrogant, and inegalitarian about the New Genesis.

My concerns about anthropocentrism and arrogance are not shared by Rolston, who approves narratives that put humans in the cosmic driver’s seat and exalt the human intellect as the most impressive product of evolutionary and cosmic processes (Rolston, p. 203). Rolston’s position here genuinely surprises me because in my earlier monograph on ecotheology (which Rolston regards as insightful) it was his work that I cited most frequently and extensively as framing a radically *ecocentric* and *theocentric* environmental ethic, an ethic meant to correct the rampant and narrow anthropocentrism of so much ecotheology and environmental ethics. It may be that I have misapprehended his position all these years.¹⁹

Rolston seems particularly concerned with shielding Tucker, Grim, and Swimme from my critiques, while offering no similar intervention on behalf of other New Genesis advocates. Again, I find Rolston’s move puzzling because, if I’ve understood his rejoinder to me, he actually feels some affinity with the views of Barlow, Dowd, Rue, and Goodenough—that is, those whose pronouncements are more recognizably scientific or arrogant and whose treatment of religion is more dismissive than Tucker’s or Swimme’s.²⁰ Rolston occasionally finds himself concurring with Dawkins, although he considers both Dawkins and Wilson ‘guilty’ of scientism. Why does Rolston *defend* Tucker and Swimme against charges that their project is conducive to a worldview with which Rolston sympathizes? One might think that he admires their seemingly ecumenical, all-inclusive stance toward the myriad religions, yet the last line of his essay suggests that he judges their ecumenism as more a vice than a virtue: the only fault he finds with *Journey* is that Tucker, Swimme, and Grim do not (as Rolston does) pronounce older traditions and local faiths to be false; they never say ‘that somebody is wrong’ (p. 205).

Rolston’s efforts might be better spent persuading Tucker and Swimme to join him in demonstrating the inferiority or falsity of rival religions.

19. There are inklings of Teilhardian teleology and anthropic commitments in Rolston’s evolutionary theism, to be sure. I may have downplayed these aspects of his work in my desire to retrieve something more radical from it (Sideris 2007a).

20. To wit: ‘My scientific account has replaced their local faith’ (Rolston, p. 201).

Swimme, I suspect, would not be a hard sell. Here is Swimme in his own words, explaining the urgent need for a new story (from a film called *The New Story*):

We're in that chasm, between a story that used to function...[and] before the new story has really begun to function effectively. So the stories of the past we regard as important and we pay a lot of respect to them but we *know* that they don't actually give us a careful, accurate depiction of the universe. We've surpassed that level of knowledge that we had at that time. Even though we know that they're no longer really functioning as cosmic stories, we try to squeeze psychological insights out of them and so forth... But we need a new story... [W]e're done with a certain phase of our existence (Swimme 2007).

Swimme's remarks here illustrate perfectly the New Genesis proposition that science and religion compete for the same explanatory slot (with religion doing a shoddy job). I show Swimme's film to students in my environmental ethics class. Among other questions I put to them, I ask for a show of hands regarding how many of them understand Swimme to say that the New Story supersedes or replaces the 'old stories'. Without a moment's hesitation, every hand in the room shoots up. I've run this experiment a few times with the same results. Granted, perhaps I—a New Story skeptic—have unduly biased them. So I call on other witnesses, one of whom wrote, 'While they are not always consistent on this, it seems clear that the universe story is meant to replace the specific stories of different religions... Minimally, this larger story is taken to provide an overarching framework for interpreting them' (Ashley 2010: 881). This interpretation coheres with Swimme and Berry's pronouncement at the close of *The Universe Story*: 'There is eventually only one story, the story of the universe' (1992: 268). Other critics note the 'manifesto-like aspects' of the story:

Berry and Swimme, both Catholics, are constructing a cosmology that is consistent with the way in which hegemonic discourses are constructed in the Roman Catholic intellectual tradition...codified and disseminated as a definitive teaching...a transcendent story beyond human critique, a story to end all stories (Scharper 1997: 129).

Swimme seems to corroborate this reading when warming to his theme of the Epic's special status:

The unstoppable nature of this idea means that the appearance of the Epic of Evolution can be considered an irreversible transformation of the Earth's process. Certain subgroups will attempt to control the Epic, or will attempt to suppress it, but the river of time will flow right on past and isolate them as living fossils left over from a former era of humanity (Swimme 1998: 3).

Call me a living fossil, but this hardly sounds like a story that considers itself one among many. Tucker and Swimme—or Rolston—may pull out other quotes from their work or Berry’s to show that concerns about hegemonic ambitions are groundless (Goodenough retrieves one such nuanced quote from her work). But for every sentence declaring the ongoing value of the existing traditions, there are others that function as a minus sign in front of these reassuring espousals of religious diversity and disavowals of hegemony. In any case, I am less interested in what these advocates say in their most conciliatory or nuanced moments or what they believe in their heart of hearts than in the rhetoric they dispense to the public. These are popular religious movements, arguably with far more traction outside than inside the academy; the goal is to win converts. Those converts are, in all likelihood, not poring over nuanced passages of Berry’s more obscure works or parsing the strategically planted disclaimers regarding the intentions of the New Genesis, hegemonic or otherwise. They are watching PBS, YouTube videos, TED talks, or attending popular venues—the Chautauqua Institution or Unitarian Universalist churches—where the line between education and entertainment—or preaching—is virtually nonexistent.²¹

Note that I quote Swimme, not Tucker. Tucker’s extensive work on greening the world traditions certainly suggests a more ecumenical intent. Possibly Tucker disagrees with Swimme’s appraisal of the Epic/Universe Story as a force that runs lava-like over old stories and permanently enthrones the new. If Tucker does not share this view, then I agree with Rolston that Tucker might well reconsider her ethos of ecumenism and inclusivity and say that ‘somebody is wrong’ (Rolston, p. 205). Specifically, she might say, if only occasionally, that *Swimme* is wrong. It is not obvious how to reconcile Tucker’s intention (in Rolston, p. 205) to ‘retrieve, reexamine, and reconstruct these human–Earth relations that are present in all the world religions’ with Swimme’s evident desire to give them a (decent) burial once they’ve been wrung dry of their last drop of psychological insight. Or are Tucker’s mission of resuscitation and Swimme’s interment project the *same* after all? However much Tucker may celebrate the world religions in her work apart from Swimme, their collaborative work, *Journey of the Universe*, is

21. See my own lecture delivered at the Chautauqua Institution during a screening and multi-day discussion of ‘Journey of the Universe and the World Religions’, in which I attempt to raise similar questions about this movement to those I raise in the essay for this forum: http://indiana.edu/~relstud/people/profiles/sideris_lisa. Visitors to Tucker’s ‘Journey of the Universe’ website will find that all of the lectures from that conference are posted there except mine. See <http://www.journeyoftheuniverse.org/conference-at-chautauqua/>.

virtually silent on the question of how the traditional faiths relate to its storyline, aside from noting that the new scientific story is 'so comprehensive' that it 'challenges some religious traditions to rethink or expand their worldviews' (Swimme and Tucker 2011: 4). (*Some religious traditions? Which ones? Here the ecumenism falters a bit.*²²) In the end, so 'highly metaphorical', so thoroughly 're-mythologized', so deep, deep down indeed (Rolston, p. 205) is *Journey's* mode of including religion that fellow journeyers may well search for it in vain (Moore 2011). Perhaps *Journey's* reticence represents a compromise position between Tucker's and Swimme's respective appraisals of the world religions. Only they can say (and it is curious that they don't).

It comes as a surprise to me that only relativists or postmodernists raise concerns about hegemony, diversity, or power, as Zaleha's response suggests. (Note Callicott's similar concerns quoted in my essay, in which he describes his reconstructive postmodernism as eschewing 'any totalizing tendencies and hegemonic ambitions' and remaining attentive to 'power relationships'. Yet Zaleha cites him approvingly.) What Zaleha misses entirely is that my critique is not of *science* but of the *consecration of science*. While postmodernists may worry about metanarratives and oppressive ideologies inherent in scientific knowledge and practice, the object of my critique is a project led by *mostly nonscientists* to imbue science with the trappings and, yes, mythic power of religion—a project that encourages others (*mostly nonscientists*) to similarly exalt what is a valuable but flawed human tool and its important but provisional outcomes as sacred truth. Anyone wielding a 'hermeneutics of suspicion' against the New Genesis would quickly lose interest, for there is virtually nothing there to *unmask, decode, or reveal*; their global mythmaking agenda is not disguised but utterly transparent. I'm not calling science a metanarrative; I'm calling a metanarrative a metanarrative. Overall, Zaleha's response to my essay bears so little connection to arguments actually contained therein that it appears his text was lifted from work aimed at a different target, perhaps from an essay he had languishing in a drawer. In setting up his straw-man argument against me and postmodernism, Zaleha finds it very 'telling' that I never name any thinkers—Kuhn, Foucault, Derrida, and so forth—or concepts ('regimes of truth') on whom and which he believes my worldview heavily depends. My complete failure to mention them is proof of their insidious, all-pervasive power over me and of my fierce but sublimated

22. I will go out on a limb and guess that it is the Western traditions that Tucker and Swimme have in mind for revision; Berry's concerns were with Eurowestern religion and culture.

loyalty to them. I invite Zaleha to search my entire body of work—in vain—for mention of these thinkers and thereby solidify his evidence of my profound debt to them.²³

It is *telling* that Zaleha's gratuitous diatribe against postmodernism is almost entirely devoid of any actual language from my essay and that he apparently 'feels no need' to supply such language (Zaleha, p. 219). In a rare moment when Zaleha attends to my text, he quotes me quoting Callicott (Zaleha, p. 219). My own invocation (and rejection) of absolute Truth and Reality is a paraphrase of Callicott's similar express concern about the epistemic arrogance of what he calls the

mandarins of Modern science [who] have been so certain that they and they alone have exclusive access to Truth (with a capital 'T') about Reality (with a capital 'R'), that the venerable knowledge systems of other cultures have been dismissed as myth—mere myth, in the pejorative sense of the word—and superstition (Callicott 2002: 162).

Callicott's rejection of these arrogant assertions of Truth and Reality inspires him to rehabilitate postmodernism as a 'reconstructive' variety that recognizes scientific truths as important but tentative. Zaleha, in his angry confusion, deems it perfectly acceptable if Callicott—fearless defender of natural science and vanquisher of nihilism—rejects Reality and Truth, while my own doubts about the existence of hyper-reified scientific Truths and Realities show me to be a relativist. Why is that? My (approximate²⁴) agreement with Callicott on the truthiness of science clearly puts me somewhere in between the absolute relativism/postmodernism caricatured by Zaleha and the scientific positivism and triumphalism Zaleha seems to celebrate. There are many tenable positions in between (see my earlier comments about disliking extremes). That spectrum is something Zaleha cannot fathom; for any claim that science does not reveal absolute truth and reality is tantamount to asserting that 'all human ideas are seen as equally uncertain' (Zaleha, p. 218).

As for the postmodernist, millennialist dream of peace, love, and understanding that Zaleha unaccountably attributes to me: I don't believe anyone has ever (before) seen my work as inaugurating the Age of Aquarius. That is by design, because I consider consensus and

23. For my critiques of the way in which postmodernism and worries over scientism have brought ecotheology too close to intelligent design, see Sideris 2007b. A fuller discussion of this can be found in Sideris 2006. My critiques of ecotheology's postmodernist excesses and inordinate suspicion of science will leave Zaleha unmoved, for he assents only to absence of evidence.

24. I would venture that I am less comfortable with the postmodernism label, reconstructive or otherwise, than Callicott.

harmony possible signs of serious trouble in academia. (The polemical tone of this forum is a case in point; surely no one seeking to join hands and sing 'Kumbaya' with her colleagues would have written the essay that engendered these responses.) But I will extend the peace pipe to Zaleha by saying this: if he truly believes that 'there is much we do not know and that science has not yet revealed, and may never reveal' (Zaleha, p. 219); and that there are 'no doubt, some things we think are true now that further scientific enquiry will contradict' (Zaleha, p. 219); and that there exist 'facts about the universe (or perhaps multiverses) that will be forever beyond our detection from this remote corner of the universe' (Zaleha, p. 219), then Jupiter is indeed aligning with Mars, and love may yet steer the stars. For I concur entirely with *that* account of scientific certainty.

Critics who paint me as postmodernist and even those who don't find especially puzzling my casual and hermeneutically *unsuspicious* use of the word 'Anthropocene'—and justifiably so. In my view, some of the most interesting commentary clusters around my fleeting use of this term in my essay. My critics are right that the Anthropocene is neither neutral nor unproblematic. I did not intend to endorse the term or treat it as innocent. Insofar as the Anthropocene is *described* as geophysical dominance or re-creation of the planet by humans, it is (to me) already, intrinsically, a bad, bad thing. What I meant to say is: Swimme and Berry's 'Ecozoic' concept bears some troubling similarities to what some have recently heralded (or critiqued) as the 'good' Anthropocene.²⁵ For Universe Story advocates, the Ecozoic signals a period marked by human creativity and mutually enhancing human–Earth relations (Swimme and Berry 1992). In the coming Ecozoic, '[T]he entire complex of life systems of the planet will be influenced by humans in a comprehensive manner' (Swimme and Berry 1992: 247). The good Anthropocene as endorsed by commentators like Andrew Revkin (a great admirer of Berry, incidentally) is an upbeat, celebratory take on our new role in our new geological epoch; human ingenuity and smart technology will allow us skillfully to guide and manage the planet in ways beneficial to us and it. Dressed up in sanguine attire, the 'good' Anthropocene is attracting, some suspect, hubristic forms of environmentalism that call for abandoning wilderness preservation and adopting pragmatic, human-centered, business-friendly management strategies (Hamilton 2014). What has this to do with the

25. See Revkin 2014. Eileen Crist, with whom I otherwise concur, regarding the potentially anthropocentric resonances of the Anthropocene, offers Berry's 'Ecozoic' as a counterpoint to (sanguine, anthropocentric) Anthropocene discourse. I don't agree. See Crist (2013).

Universe Story? Northcott worries that the deep-time perspective of the Epic/Universe Story will encourage a refusal among humans to acknowledge our Anthropocene destruction of the planet—our present age may seem a ‘mere blip’ in cosmic history (Northcott, p. 195). This is a distinct possibility. My larger concern is rather the opposite, namely, that the anthropocentrism and general anthropism of these cosmic narratives—with humans as *heart, mind, consciousness, or epic hero* of the cosmos—brings Berry’s Ecozoic disconcertingly close to the ‘good’ Anthropocene of Revkin and his fellow eco-pragmatist Anthropocene boosters.

Tucker’s remarks actually reinforce this association between the Anthropocene and the Ecozoic. She affirms the Ecozoic as a new era of mutual human–Earth enhancement. She notes that Berry understood his life’s work to ‘assist in the transition from the Cenozoic to the Ecozoic. Many geologists are naming this new period the Anthropocene because of the effect of humans on Earth’s ecosystems’ (Tucker n.d.).²⁶ But wait. Surely Tucker does not mean to say that the Ecozoic—a welcome era (to Berry and Swimme) of *positive* human-directed enhancement of Earth—is consonant with the Anthropocene, a period characterized by humans’ very *negative* dominance of (and *negative* effect on) Earth systems? The Anthropocene concept originally signaled a dangerous shift, a radical rupture with the geological past (Hamilton and Grinevald 2015). That shift, I assume, was not one Berry intended his work to facilitate. I doubt that Tucker celebrates that dangerous shift either; but I *do* think Tucker’s slippage here between the Ecozoic and Anthropocene demonstrates that, for Universe Story advocates, the coming era of human supervision of evolutionary and geological unfolding is an exciting transition, a cause for celebration. A *good* Anthropocene. *Celebrating* a shift to human domination of the planet, as the Ecozoic does, is an inadvisable—even delusional—strategy for halting our steady march into the (very *bad*) Anthropocene!²⁷

Before closing, I want to thank the many respondents who provided a remedial lesson on what science is and how it functions. Goodenough, in particular, offers to dispel my profound confusion between science as a

26. Tucker suggests a similar Ecozoic-Anthropocene association in her response to me (Tucker, pp. 209-10).

27. As Hamilton (2014) notes, even as an *emotional* strategy—let’s think positive!—this optimism is rooted in something unscientific and dangerous.

method, science as a body of knowledge produced by such method, and science woven into story form. But alas, it is the cosmic mythmakers who naively and often uncritically conflate these different meanings of science. Reading these scientific myths, one would think that the universe was whispering its empirical truths directly into the narrators' ears. Claims to cosmic revelation go back to Berry's wholly uncritical argument that the universe is self-referential and 'self-normative', and the only 'text without a context' (1988).²⁸ When they are not proposing that the universe is speaking its realities in clear scientific prose, they are often borrowing from scientific materials in a highly selective fashion; sometimes they do both. Dowd, for example, takes what he likes best from evolutionary theory (he likes progressive and convergent evolution, which suggest the inevitability of certain evolutionary outcomes, a preference that accords with Larson's study of 'conscious evolution' devotees) and then proceeds to tout his method of selection as an 'Evidential Reformation' that 'reveals' unproblematically '*what's real and what's important*' (Dowd 2012, italics original). Should the convergent account fall out of favor—it remains an open question how convergence will fare *vis-à-vis* more contingent understandings of evolutionary processes—there goes Dowd's whole narrative about purpose and direction in the universe and its intentional groping toward the emergence of (surprise!) creatures like ourselves.²⁹ The various iterations of the Universe Story with their Teilhardian entanglements also exhibit anthropic storylines that suggest the universe *knew* we were coming and made the appropriate cosmic adjustments. Should we ever find intelligent life elsewhere in the universe, Tucker, Swimme, and Berry's portrait of humans as heart, mind, and consciousness of the universe would have to undergo some serious revision indeed. Perhaps the greatest gift science—or should I say, the universe—could give these mythmakers would be the vindication of the multiverse hypothesis, for this would greatly trouble the anthropic waters of the New Genesis. It might, at last, provide them with a *genuinely* novel storyline and challenging narrative task, one to occupy and humble them for many decades to come.

28. Similar ideas are expressed in Berry (2009: 94), edited and with a foreword by Mary Evelyn Tucker.

29. Goodenough is far more comfortable with a contingent account of evolution, and has even critiqued Berry's purposive and progressive cosmos. See Goodenough (2001).

References

- Ashley, J. Matthew. 2010. 'Reading the Universe Story Theologically: The Contribution of a Biblical Narrative Imagination', *Theological Studies* 71.4: 870-902. Doi: <http://dx.doi.org/10.1177/004056391007100405>.
- Barlow, Connie. 1997. *Green Space, Green Time: The Way of Science* (New York: Springer). Doi: <http://dx.doi.org/10.1007/978-1-4612-0673-6>.
- . 2013. 'Ritualizing Big History'. Online: <http://www.metanexus.net/blog/ritualizing-big-history>.
- Berry, Thomas. 1988. *The Dream of the Earth* (San Francisco: Sierra Club Books).
- . 1999. *The Great Work: Our Way into the Future* (New York: Bell Tower).
- . 2009. 'Religion in the Ecozoic Era', in Mary Evelyn Tucker (ed.), *The Sacred Universe* (New York: Columbia University Press).
- Berry, Wendell. 2000. *Life Is a Miracle: An Essay against Modern Superstition* (Washington, DC: Counterpoint).
- Callicott, J. Baird. 2002. 'Myth and Environmental Philosophy', in Kevin Schilbrack (ed.), *Thinking Through Myths: Philosophical Perspectives* (New York: Routledge): 158-73. Doi: http://dx.doi.org/10.4324/9780203398449_chapter_8.
- Crist, Eileen. 2013. 'On the Poverty of Our Nomenclature', *Environmental Humanities* 3: 129-47.
- Crouch, Robert A., Richard B. Miller, and Lisa H. Sideris. 2006. 'Intelligent Design, Science Education, and Public Reason'. The Poynter Center for the Study of Ethics and American Institutions Indiana University. Online: http://poynter.indiana.edu/files/8513/4607/5060/Science_Public_Reason.pdf.
- Dawkins, Richard. 1983. 'Universal Darwinism', in D.S. Bendall (ed.), *Evolution from Molecules to Man* (Cambridge: Cambridge University Press): 403-25.
- Dowd, Michael. 2012. 'The Evidential Reformation: Humanity Comes of Age'. *Huffington Post*, 17 April. Online: http://www.huffingtonpost.com/rev-michael-dowd/the-evidential-reformation-humanity-comes-of-age_b_1421966.html.
- . 2014. 'Evidential Mysticism and the Future of Earth'. Online: <http://thegreatstory.org/dowd-evidential-mysticism.pdf>.
- Dupre, John. 1998. 'Unification Not Proved', *Science* 29 5368.280: 1395.
- Eger, Martin. 2006. 'Hermeneutics and the New Epic of Science', in Abner Shimony (ed.), *Science, Understanding, and Justice: The Philosophical Essays of Martin Eger* (Chicago: Open Court): 261-80.
- Goodenough, Ursula. 2000. *The Sacred Depths of Nature* (Oxford: Oxford University Press).
- . 2001. 'Progress, Purpose and Contingency: A Response to Thomas Berry's *The Great Work: Our Way into the Future*', *Wordviews* 5.11: 2001.
- . 2010. 'My Covenant with Mystery'. Online: <http://www.npr.org/blogs/13.7/2010/08/27/129471676/my-covenant-with-mystery>.
- Gould, Stephen Jay. 2003. *The Hedgehog, the Fox, and the Magister's Pox* (New York: Harmony Books). Doi: <http://dx.doi.org/10.4159/harvard.9780674063402>.
- Hamilton, Clive. 2014. 'The Delusion of the Good Anthropocene: A Reply to Andrew Revkin', 17 July. Online: <http://clivehamilton.com/the-delusion-of-the-good-anthropocene-reply-to-andrew-revkin/>.
- Hamilton, Clive, and Jacques Grinevald. 2015. 'Was the Anthropocene Anticipated?', *Anthropocene Review* 2.1: 59-72.

- Kaye, Howard. 1999. 'Consilience: E.O. Wilson's Confession of Faith', *Politics and the Life Sciences* 18.2: 134-35.
- Kennard, David, and Patsy Northcutt (dirs.). 2011. *Journey of the Universe*. DVD. Mill Valley, CA. InCA Productions.
- Moore, James F. 2011. 'Book Review: *Journey of the Universe*', *Zygon* 46.4: 1005-1007. Doi: <http://dx.doi.org/10.1111/j.1467-9744.2011.01220.x>.
- Revkin, Andrew. 2014. 'Exploring Academia's Role in Charting Paths to a "Good" Anthropocene', *New York Times*, 16 June. Online: <http://dotearth.blogs.nytimes.com/2014/06/16/exploring-academias-role-in-charting-paths-to-a-good-anthropocene/>.
- Rorty, Richard. 1998. 'Against Unity', *The Wilson Quarterly*. Online: http://www.naturalism.org/OffSite_Stored_Pages/WQ-RORTY.htm.
- Rue, Loyal. 2005. 'Epic of Evolution', in Bron Taylor (ed.), *Encyclopedia of Religion and Nature* (London and New York: Continuum International): 612-15.
- Scharper, Stephen Bede. 1997. *Redeeming the Time: A Political Theology of the Environment* (New York: Continuum).
- Sideris, Lisa H. 2006. 'Religion and the Environment in America', in Charles H. Lippy (ed.), *Faith in America: Changes, Challenges, New Directions*, vol. 3 (Westport, CT: Praeger): 191-214.
- . 2007a. 'Writing Straight with Crooked Lines: Holmes Rolston's Ecological Theology and Theodicy', in C.J. Preston and W. Ouderkirk (eds.), *Nature, Value, Duty: Life on Earth with Holmes Rolston III* (Dordrecht: Springer): 77-101. Doi: http://dx.doi.org/10.1007/1-4020-4878-5_6.
- . 2007b. 'Evolving Environmentalism: The Role of Ecotheology in Creation/Evolution Controversies', *Worldviews* 11: 58-82. Doi: <http://dx.doi.org/10.1163/156853507X173504>.
- . 2015. 'Forbidden Fruit: Wonder, Religious Narrative, and the Quest for the Atomic Bomb', in Celia Deane-Drummond, Sigurd Bergmann, and Bronislaw Szerszynski (eds.), *Technofutures and the Sacred: Interdisciplinary Perspectives* (Farnham: Ashgate): 83-98.
- Swimme, Brian. 1998. 'The Cultural Significance of the Story of the Universe', *Journal of the Epic of Evolution* 2: 1-5. Online: <http://thegreatstory.org/CulturalSignificance.pdf>.
- . 2007. 'The New Story', Part I. Online: https://www.youtube.com/watch?v=TRykk_0ovI0.
- Swimme, Brian, and Thomas Berry. 1992. *The Universe Story: From the Primordial Flaring Forth to the Ecozoic Era—A Celebration of the Unfolding of the Cosmos* (New York: Harper Collins).
- Swimme, Brian, and Mary Evelyn Tucker. 2011. *Journey of the Universe* (New Haven: Yale University Press).
- Tucker, Mary Evelyn. N.d. 'Overview'. Online: <http://www.journeyoftheuniverse.org>.
- Wilson, E.O. 1998. *Consilience: The Unity of Knowledge* (New York: Vintage).