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Nature's Scripture: The Interfaith Promise of Science

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Underlying the human world of strife and separation is an oft-neglected landscape of commonality among faiths: the natural world. At precisely the time when our religious and political divisions threaten the existence of life on Earth, science offers a sweeping interfaith vista filled with revelations and insights as spiritually meaningful as ancient scriptures. Understood and interpreted as "scripture," creation (natural reality) offers a common text for all the world's faiths. Studied as sacred scripture, natural reality could ease interreligious and intercultural conflict.

One touch of nature makes the whole world kin.
—William Shakespeare, Troilus and Cressida

Background

The extractive nature of humanity's current global civilization is unsustainable, burning through resources and spewing out wastes at rates far beyond the planet's carrying capacity (Rockström et al. 2009). Centuries-old conflict between the findings of science and traditional theological models encourages a disconnect between "what is" as described by science and "what matters" as delineated by theologians and other clergy. Since global crises play out in natural reality, addressing them requires strong knowledge and understanding of "what is" as described by science, but the dis-integration of science and theology over the last few centuries hinders such understanding for people of faith. Facing a historic juncture that includes a possibility of civilizational collapse (Greer 2016; Catton 1982), approaches that increase the integration of science and religion, as well as open dialogue between diverse faith communities, could transcend barriers to global cooperation.

As described in Ian Barbour's now classic work When Science Meets Religion (2000), there are four basic approaches to the relationship between science and religion: conflict, independence, dialogue, and integration. This article bridges those last two, proposing that theologians and lay people perform exegesis on what science reveals about natural reality as though it were a form of holy scripture. Such an approach promises to integrate not only science and religion but diverse religious faiths, at least to the extent that they share a common sacred scripture.

What makes a text sacred? Jesuit priest and scholar Michael A. Madigan (2013; emphasis added) writes: "Texts become sacred, not because of any inherent literary property, but because communities of faith have come to consider them so . . . That is to say, they have recognized that a certain particular text or group of texts **somehow express truth** and so make a particular claim on them."

Rather than evaluating a text by its provenance, consider the implications of evaluating a text by its potential to provide spiritual and personal insight, to "somehow express truth." The phenomenological hermeneutics of Paul Ricœur suggest that the purpose of interpretation is to "conquer a remoteness, a distance between the [setting] to which the text belongs and the interpreter himself. By overcoming this distance... the exegete can appropriate its meaning to himself: foreign, he makes it familiar, that is, he makes it his own. It is thus the growth of his own understanding of himself that he pursues through his understanding of others. Every hermeneutics is thus, explicitly or implicitly, self-understanding by means of understanding others" (Ricœur, Reagan, and Stewart 1978, 101).

Could any text become sacred by the study and application of the wisdom it offers? In the spirit of Madigan and Ricœur taken together, I assert that any text

or series of texts that "somehow express truth" for a community of interpreters who "can appropriate its meaning to [themselves]" can become sacred.

In 2015, Harvard Divinity School student Vanessa Zoltan experimented with applying exegetic principles to Jane Eyre, in what, to this author, appears to be an application of Ricœur's hermeneutics! Zoltan studied the text the way people often approach scriptural study, earnestly searching for spiritual and moral guidance within the language of the text itself. She and her professor were surprised at how fruitful this approach proved to be. Then, Zoltan offered it as a class, titled "Jane Eyre as a Sacred Text" (Paulsell 2016; Zoltan 2016). Fellow student Casper ter Kuile said, "This is a great idea. We should do it with a book people actually like, like *Harry Potter*" (Harry Potter and the Sacred Text. n.d.a).

They tried it, and the class was wildly popular. It spawned a podcast, and within a few years, their podcast, "Harry Potter and the Sacred Text" (HPST), had 16 million subscribers—16 million people benefitting, spiritually, from studying Harry Potter books as though they were scripture. It should be noted that the podcast team acknowledges and rejects J. K. Rowling's exclusionary perspectives on transgender rights (Harry Potter and the Sacred Text. n.d.b).

Their point is not that Harry Potter books are inherently sacred. They chose the Harry Potter series because it is well known, and the plot is rich in metaphor, character development, and archetypal human dramas. Zoltan and her team say, "We believe that in treating texts as sacred, we can learn to treat one another as sacred" (Harry Potter and the Sacred Text. n.d.b). In other words, the HPST team believes that, when we give them the time and attention required for deep understanding, rich texts and fellow humans become sacred to us as a result of our deep investment in them.

The HPST team emphasizes that exegesis performed on popular fiction novels yields benefits because of three elements: **trust**, **rigor**, and **community**. Regarding trust, they say, "Trusting the text doesn't mean we understand the text to be perfect—either in construction or moral teaching—but that it is worthy of our attention and contemplation. A guiding principle is that the more time we give to the text the more blessings it has to give us" (Harry Potter and the Sacred Text. n.d.c). Imperfect texts require some passages to be interpreted literally while others can be understood metaphorically, or even rejected outright.

Rigor, in this case, involves engaging with the text earnestly, slowly, and repeatedly, bringing full attention to what it might offer in the way of insight. The podcasters say, "The text in and of itself is not sacred, but is made so through our rigorous engagement with it" (Harry Potter and the Sacred Text. n.d.c; emphasis added). As with traditional religious scriptures, a community of people engaged in devoted study is an important part of the exegetical process. The synergism of the interaction among participants is substantive, generative, and extensive.

If there were a text common to all faith traditions, might interfaith study of it lead to a convergence among and between faith traditions? If millions of people can extract spiritual enrichment from studying the fictional Harry Potter novels,

then applying a similar process of study to a globally constructed interfaith work of nonfiction promises far greater religious and spiritual benefits. If there is such a text, and if it were studied with trust and rigor in a spirit of interfaith community, the world might be very different.

Even if humanity recognized a common global scripture, different people undoubtedly would make different meanings from it. The many denominations of Christianity read different meanings from Christian scriptures, as do various sects that hold the Qur'an as sacred. The billions of people who study the Hebrew book of Genesis extract many different understandings of what it means in regard to the role of women, for example. A common scripture would not necessarily prevent discordant interpretations, or blatant misuse, of it, nor would it guarantee religious reconciliation. But as diverse as Christians are theologically, they nevertheless have a shared scriptural language, some shared symbols and metaphors. That commonality helps bridge their interpretational differences. A similar commonality connects Sunni and Shia communities, however at odds they may be in other ways. At the very least, a global common scripture for humanity would offer some shared holidays, and we would have a common language for addressing challenges, from personal conundrums to global crises.

Thesis

Humanity does have a common global scripture, and we have been living and worshiping in its "pages" our entire lives, perhaps never considering its spiritual potential, its sacred depths. It is tremendously rich in theological content. We might disagree about the divine provenance of one another's traditional scriptures, and often do, but by definition, our common scripture was "written" into existence by the forces that birthed it (by the Creator, if you will), however differently we might describe or name those forces.

Our common scripture is nature—creation—natural, physical reality—a vast cosmos we now know to be at least 47 billion light years across, a universe that includes all of us on Earth, along with uncountable other worlds. In any faith tradition in which a divine entity is believed to have created natural reality, it is reasonable to look to that creator's handiwork for clues about the creator.

By analogy, even if we knew nothing about Leonardo da Vinci's life history, we might still obtain glimpses of the inner workings of his mind through thoughtful study of his artworks. For example, we might examine his many portraits and conclude that his attention to the proportions of human faces reveals an abiding concern with geometric forms and proportionality. Such a conclusion would be directly supported by his drawing "Vitruvian Man," which lays out the geometric proportions of male human bodies in both figures and text. Other da Vinci works, with their consistent patterns of geometricity and proportion built into the imagery itself, provide further evidence that the artist cared greatly about these elements of representation.

Such study—done with trust and rigor and in community—would be akin to exegesis, but of artworks instead of scriptural texts. What an artwork is nature! Centuries of rigorous scientific study have already revealed far more than a glimpse, and what we can now see reveals yet more mysteries awaiting further exploration. Natural reality is so vast and intricate that, taken as sacred scripture, it may be the only such scripture that will never be finished, whose revelations are ongoing, infinitely.

This is not a new idea; Thomas Berry (1999, 15) described natural reality as the "book of the universe," and the "Great Book of Nature." Berry urged that, at a minimum, natural reality should supplement written scriptures or, at the maximum, replace them. This article argues that Berry's idea of embracing nature as holy scripture should happen in interfaith contexts, as a common scripture among and between all faith traditions. Such interfaith scripture study could also naturally include and invite those of no faith: atheists, agnostics, nontheists, and empiricists.

Taken as scripture, natural reality is completely different from all other sacred scriptures in that it is not new (it predates all others), and its provenance is unquestioned; humans are diverse in the ways we name and describe the creative forces that birthed the universe, but we agree that reality exists and that the universe must have been created somehow. Study of physical reality is therefore a self-evident option for seeking insight into ultimate reality.

Understood as a source of information and inspiration about the mind of the creator, natural reality is, by definition, a common scripture for all the world's religious faiths as well as those with no religious faith. Natural reality is the only source of inspiration about ultimate reality that is common to all humanity.

What is new is our ability to read it. Before the advent of scientific inquiry, humanity had only myths, metaphors, and guesses about the nature of nature. Like our varying faiths, those myths and metaphors differed from culture to culture. With empirical approaches, we generate evidence that is cross-cultural, replacing myths with evidence-based models. Explanatory models are still metaphors, but constructed from empirical evidence anyone can examine. In the best case, such models are refined or scrapped as new evidence challenges them. Scientific knowledge evolves, nudged along by the natural selection pressure of having to align with physical reality. This winnowing process, which Gregory Bateson (1972) called the "ecology of ideas," would also apply to interpretations (exegesis) of the findings of science. Interpretations that match with human sociocultural worldviews would persist in the short term, while those well aligned with realities of the natural world would prevail in the long term. Exegetical understandings would therefore also evolve over time.

Science is limited to the study of natural reality, so science is necessarily agnostic about the existence of anything supernatural. But scient <u>ists</u> are Muslims, Christians, Buddhists, Taoists, Shintoists, Jews, Jains, Sikhs, Zoroastrians,

Confucians, Animists, Pagans... name any religious tradition and there are almost certainly research scientists who practice that faith, along with others of no religious faith. Elaine Howard Ecklund and her team have worked to quantify this assertion, summarized in their book Secularity and Science: What Scientists around the World Really Think about Religion (Ecklund et al. 2019, 199). They write:

Scientists, globally, are more religious than many people are led to believe . . . A substantial portion of scientists across the regions we studied pray frequently and attend religious services regularly. Two-thirds of scientists in Turkey, one-quarter of scientists in India, and 10 percent of scientists in the United States and the United Kingdom say they have "no doubt" about God's existence. Among the atheist scientists we surveyed and interviewed, we found much less vitriol toward religion than we see among New Atheists . . . A number of atheist scientists, especially in Western countries, described having a science-consistent spirituality, finding feelings like awe, wonder, purpose, and meaning in their scientific work. Atheist scientists do not necessarily see science and religion as inherently in conflict.

Often working in collaborative teams from many faiths, scientists take reality apart to reveal hidden splinters of truth, then reconstruct them into a grand framework of how nature works. At every step, they challenge one another, ensuring that anything counted as "knowledge" is verifiably aligned with reality through openly available empirical evidence.

After a few centuries of the scientific endeavor, humanity has assembled a vast library of knowledge about natural reality, an extensive "text," if you will, that describes natural reality as well as it can with the evidence generated thus far. As much as possible for a human endeavor, scientific knowledge attempts to be value and culture neutral. It offers insight into what is, but not what it means, or what matters, or how it should be. Science can help guide us in those areas, but it does not address them directly; that requires human interpretation. If meaning or insights are to be taken from natural reality that are relevant to what matters or how things should be, we must interpret it; that is, we must perform exegesis with it. Let us begin.

Examples

The following four examples were chosen from among dozens if not thousands of others. Thirty-five revelations and fifteen insights are listed at jdstillwater. earth/revelations-insights (2024), but the exegetical potential of natural reality as described by science is almost completely unexplored. Based on initial work, the theological fecundity of the approach is probably infinite (e.g., Berry 1999; Fowler 2021). Each example here begins with the mundane observations (measurements) offered by the scientific endeavor, followed by a "revelation" (metaphor) that is

implicit within them (but far less mundane). I then volunteer one meaningful "insight" (meaning) that arises from these observations and revelations, as interpreted by this author. Finally, a few thoughts are given on what the insight offers in the way of clues about ultimate reality (metaphysics), abbreviated as "Source" (following theistic conventions for capitalizing the names of Creators).

In each step of the exegetical process, I progressively move from measurements to metaphors, then to meaning, and on to metaphysics. In doing so, I gradually shift from the realm of science to the realm of the humanities, basing our metaphors, meanings, and metaphysics on scientific measurements, but subject to differing interpretations at each step. Other students and scholars of nature's scripture may interpret the science differently. We are performing exegesis on natural reality as revealed by scientific methods. As much as Baptist and Quaker interpretations of Christian scripture differ, so might our interpretations of natural reality differ.

Gravity

Observation: Objects with mass attract one another across unlimited distances. That attraction keeps massive bodies in orbital relationships. Calculations tell us that our every movement, even as small as commuting to work, measurably influences the orbits of other planets over time (Irion 2013).

Revelation: The mass in your body helps hold the Milky Way Galaxy together and affects large-scale behaviors of stars and star clusters, as do all bodies of all kinds within the galaxy.

Insight: Gravity binds every object in the universe with every other object into a single interconnected system. Human beings are not objects acting independently of other objects; we are integral parts of a single universal being. Our actions matter—and our presence is meaningful—even on galactic scales.

Theology: This revelation exemplifies a consistent pattern bolstered by many other examples: the interdependence and interconnectedness of living species within ecosystems (Günther and Folke 1993); the unity of time and space (Einstein 1916); the complementarity of particles and waves (Bohr 1928); the constant flow of matter through living bodies (see the following discussion of water). Along with many other such examples, this pattern of universal unity suggests that the Source of the universe had a penchant for interbeing, for deeply inherent interrelatedness, with no isolated systems and nothing irrelevant to the whole. Patterns of interbeing are both personal and universal.

Evolution

Observations: Under environmental pressures that advantage relevant traits, living populations experience genetic changes commensurate with those environmental pressures (Darwin 1859). Over time, such changes can lead to speciation (new species). Genetic similarities allow for tracking the relatedness of extant species back through time (Patwardhan, Ray, and Roy 2014).

Revelations: Since every known species is related to other species through intersecting lines of relation, there is only one single family tree of relatedness among living creatures on Earth. All living beings descended from a common ancestor.

Insights: All living systems are genetically interrelated. All humans are cousins. Therefore, all conflicts are family conflicts—all wars are civil wars. All living species are cousins, too. Human nature inherits much from primate nature, which inherits much from mammalian nature. The moral and ethical implications are endless:

- What happens to our definition of "family" as we consider cousins further and further distant from us on the family tree of life?
- Addictions, violence, and greed (all the "deadly sins") were likely selected for in our ancestry. Would we even be here without those traits? Are they "sinful" or advantageous or both?
- How should we interact and relate to distant relatives, especially those contributing to our sustenance?

And so on.

Theology: Physical laws are constructed such that order and chaos, life and death function in tandem to allow for creativity, on Earth and throughout the universe. The astounding variety of "endless forms most beautiful" (Darwin 1859, 490) testifies to the capacious creativity possible within the orderly bounds of natural laws. Many other lines of physical evidence suggest that endless diversity is expressed throughout the cosmos, hinting that the Source favors creativity, diversity, and variation. This generativity is both constrained and promoted by the orderly limits of physical laws. Dynamism and constraint—built into the fabric of reality—give rise to consistent patterns of creative diversity.

Water

Observations: Macroscopic matter such as water is made of nanoscopic atoms that associate into molecules through attractive electrostatic forces. Water molecules are extremely small but can be counted using their molecular mass and Avogadro's number. The water cycle on Earth assures near-total mixing of surface waters over time. Human bodies are $\sim 50-60\%$ water, of which $\sim 3\%$ is excreted and replaced each day (Rieble and Davy 2013).

Revelation: Each liter of water I drink contains hundreds of millions of water molecules that have been inside the bodies of Abraham, Buddha, Confucius, Gandhi, Jesus, Moses, Muhammad, and every other human who lived more than a few decades ago. Each liter of water includes varying numbers of molecules from all the plants and animals that lived more than a few decades ago too.

Insights: All water is holy, including the water in my body. Human bodies participate in Earth's water cycle (along with other cycles) and are integral

elements within those cycles. This is true of all living bodies. Such insights are therefore personal to us as humans and in common with all life on Earth.

Theology: Here again it appears that interrelatedness is a matter of universal principle—a quality of the Source. The cyclical nature of water on Earth hints at cyclical economies (echoed in other natural cycles, e.g., carbon, nitrogen, rock), not only of matter but also of time in the form of days, months, seasons, and years. There is an additional pattern related to scales of existence, built up from the quantum scale to the macro and cosmic scales, interrelated systems built of interrelated systems, like matryoshka dolls, or, as Arthur Koestler described, holons within holons (Koestler 1967).

Complementarity

Observation: When passing through narrow slits in various arrangements, subatomic particles exhibit properties associated with both waves and objects. Further experimental observations establish that, when not observed, such particles exist as a superposition of both mutually exclusive models. They cannot be both, yet they are. This paradox was termed "complementarity" by Niels Bohr (1928).

Revelation: A single entity can simultaneously exist in two mutually exclusive states. Every object in the universe is made of such paradoxical materials. Like other macro-scale objects, human bodies are made of pico-scale entities that exhibit paradoxical behavior.

Insight: Explored using the either/or logic of empirical science, the universe reveals itself to be fundamentally both/and, with implications for social identities (gender, sex, race, etc.), conflicts of all kinds, certainty and dogma, inclusion, and politics.

Theology: Complementarity suggests that the Source transcends all our certainties, convictions, and dogmas based on either/or reasoning. Complementarity urges us towards humility in our conclusions and suggests that the Source values both content (being) and process (becoming). To emphasize one to the exclusion of the other is theological malpractice.

Relevance for This Time in History

We live in a world on the brink of catastrophe, for humans at least. As has been thoroughly described by other contributors to this journal, humanity is experiencing the natural consequences of living out a worldview marked by separation, domination, conflict, and exploitation. At this precarious time, the meta-crisis we face (Rowson 2023) requires global cooperation and good will, but conflict among human cultures and religious groups continues largely unabated. Such conflict is often marked by self-righteous certainty, dogmatic ideologies, and proselytizing. Arguably, intercultural conflicts of all kinds are exacerbated by environmental crises as resources become scarce.

Culture wars urge us to think of science as an enemy of religion and spirituality, claiming that science reduces all magic and mystery to the mundane muck of materialism—to the profane (Derry 2014). In truth, the last 150 years in science have done just the opposite. From particle physics to the standard model of cosmology, every discovery, every revelation, every dark frontier illuminated, reveals ever-greater mysteries beyond the shores of our knowledge, like quantum entanglement at the nano scale (Einstein, Podolsky, and Rosen 1935) and dark energy and matter at cosmic scales (NASA 2024). With each new revelation, nature's glory and intricacy grow, often by leaps and bounds. Studied with a scriptural mindset, revelations from science inspire an ever-expanding awe of the creative forces that gave birth to everything.

If the world's religions want to work together to address global crises, especially environmental crises, we might consider starting on common ground. Natural reality is the only literal common ground we have. And here we are, living in it, as it. What if our sources of inspiration and spirituality included one based on what we *know* alongside what we *believe*?

What we believe does not always sit comfortably alongside what we know. There is no point in denying that new evidence sometimes upsets cherished beliefs. Incendiary debates over evolution and creationism continue today, a century and a half after Charles Darwin. Over time, some of those flames have softened into debates about "intelligent design." Intelligent design, whatever one's perspective on it, allows evidence and belief to coexist somewhat more companionably than creationism. This softening and eventual integration is rarely a comfortable process; new revelations force us to reconsider our beliefs in a new and more expansive light. Mystics, ascetics, monks, and other religious practitioners know that the point of a religious life is not perpetual comfort. Embracing discomfort is a spiritual practice (Woolley and Fishbach 2022)! Indeed, it may be a requirement, if humanity is to survive the coming environmental changes.

Integrating what we know with what we believe (rather than rejecting one or the other to remain comfortable) stretches our perspective. In the centuries-long dialogue between astronomy and theology, the long trend is clear: astronomy vastly expands our perceptions of ultimate reality and the Source of it all. In just the last 200 years, humanity went from knowing only of the stars we could see to realizing that our sun is one star in a large spiral galaxy of hundreds of billions of stars and that there exist many other "island universes," other galaxies (Hubble 1926). Just in the last few decades, we came to know there are about two trillion galaxies, each with 400 billion stars on average, most of those with planets, based on exoplanet discoveries orbiting nearby stars (Cassan et al. 2012). There are more solar systems in the visible universe than there are grains of sand in all the deserts and beaches of Earth (Stillwater 2020). The universe as we know it now is a hundred quadrillion times larger than the one perceived by Galileo (Benz 2017). Our perception of the Source has had to expand accordingly (see Swimme and Berry 1994). Astronomy has been good for theology, though it took centuries of resistance from some theologians before this could be noticed.

When religious communities reject what humanity knows, they risk the stagnation of what humanity believes. Approached as holy scripture undergoing continuous revelation, the study of physical reality offers to enrich our beliefs immensely. Acknowledged and explored in interfaith contexts, that same process of revelation and integration could open up expansive new terrain for human flourishing.

For example, how does the genetic kinship of all living things resonate—similarly or differently—for Hindus and Muslims? For Jews and Daoists? For Jains and Christians? For Mormons and pagans and atheists? What could these groups learn from one another if they were to go deeper than polite appreciation for each other's distinct beliefs and rituals? The fact of this kinship is something we all share because we are it; we are twigs on a tree of kinship. As one observation among thousands revealed by scientific inquiry, kinship provides a sturdy trunk for supporting deep and authentic interfaith dialogue, even in the buffeting winds of global crises. Remember, our genetic kinship is just one chapter of humanity's shared global scripture. The full text is nearly endless, and it is overflowing with richly fertile, inspirational soil waiting to be plowed.

As suggested by Harry Potter and the Sacred Text, interfaith dialogue should begin with **trust** that studying natural reality can yield generous rewards. **Rigorous engagement** with nature will then elevate nature's text from mundane observations to holy scripture. Performing exegesis in interfaith **community** will bring the entire range of human experience to the task of making meaning from the handiwork of the Source.

When the text is natural reality, interfaith study of it has a welcome side effect: because we are embedded in and spring from natural reality, sacralizing nature sacralizes us too. This brings us back to the foundational tenet of Harry Potter and the Sacred Text quoted previously: "We believe that in treating texts as sacred, we can learn to treat one another as sacred." Natural reality already includes all humanity within the community of life among the stars. In treating natural reality as sacred—by giving it the time and attention required for deep understanding—we can learn to treat one another (and ourselves) as sacred because we are part of nature. When reality is made sacred, nothing mundane remains.

Conclusion

The world's faith traditions have one important "scriptural" text in common: natural reality. Studied as a sacred text, natural reality invites a convergence, a consilience that not only promises to put disparate faiths "on the same page," but also to enrich their respective traditions with new insights about the Source of all. The "text" of natural reality is an ongoing revelation that arises from the global multifaith community of scientists. Interpreting the text of reality as revealed by science is most promising when performed in interfaith spaces, with each tradition bringing different pieces of the puzzle of human meaning to the table.

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