

Science and Religion

Do science and spirituality complement or contradict each other? Where do hope, love, and human values fit into a universe of quarks and quasars? In a world seemingly governed by relentless physical laws, can science co-exist with religion? Our Unitarian forebears include figures like Newton and Darwin who forever expanded the horizons of both scientific and religious inquiry, reminding us that knowledge, like faith, evolves. Beliefs change. Yet however far we push the limits of understanding, room for amazement, curiosity, and humility remains.

—Rev. Gary Kowalski

On my first trip to Paris I was overwhelmed by the beauty of the stained glass window in St. Chappelle. Although this was not a religious experience in the usual sense, it was certainly a spiritual experience. I get the same reaction from the beauty of stars in a clear dark sky. It may have been this that led me to a career in astronomy, but for me, nothing I have seen in telescopes can compare to this simple view.

It is rare that a scientific instrument excites the public like the Hubble Telescope. There are two reasons for this: the beauty of astronomical scenes too faint to be seen by eye and the beginnings of answers to the perennial questions: Where are we from and how did we get here? Are we alone? As a human, these searches are meaningful to me; as an astronomer, I get to ponder them as my occupation.

I am willing to use the term *God* to acknowledge the universe is more immense and more mysterious than I can conceive. I cannot visualize God but I cannot visualize the square root of minus one, either. That does not make either less important. (All of our modern electronics are based on the square root of minus one.)

My exploration of the cosmos has deepened my respect for the immensity of a universe governed by laws in which we are a small part.

—Dr. Nancy Grace Roman,
former chief astronomer at NASA,
River Road Unitarian Universalist
Congregation, Bethesda, MD

As a biologist, I understand that I'm a human animal. And I've learned that carnality and spirituality can be profoundly, even shockingly, allied.

I watched the molting grasshopper drop limply to the ground, spent from the struggle to extract its body from its exoskeleton. The insect's vulnerability was heartrending, but my memory was riveted by the next grasshopper to arrive. She approached the pallid creature tentatively. As she paused, other cannibals emerged from nearby clumps of grass. Emboldened, the female grasped the wing of the exhausted grasshopper. The feeble quarry kicked and the predator paused—until others advanced to grab their share. Soon the grisly meal was over.

We are repulsed by the brutality of nature—cold-blooded killers tearing one of their own into scraps of tissue. Biological laws are enforced by the unwavering judgment of evolutionary determinism: eat or be eaten. Or are they?

That first grasshopper hesitated. Perhaps she was coldly computing the vulnerability of her prey. But then why did she pause again after the initial bite? Did her reluctance reveal a moment of

empathy? From my field notes all I know is that she hesitated. And that is enough. Although driven by hunger and shaped by eons of genetic programming, this simple creature was capable of uncertainty.

While I can't be sure that this individual's hesitation sprang from a germ of free will, I can be thankful for the gift of doubt—whatever and whenever its origin. For as a species we are most dangerous when we are certain. The deepest roots of free will mean nothing if we are unwavering in our religious—or scientific—beliefs. For if we cannot doubt, our actions are coerced by arrogance. We are imprisoned by certainty if we cannot imagine ourselves doing otherwise.

In a dusty patch of earth, this wild creature became a primal reflection of my own humanity. Although the lesson took years to grasp, I think I finally understand. She who hesitates is free.

—Jeffrey Lockwood, professor of natural sciences and humanities at the University of Wyoming,
Unitarian
Universalist Fellowship of Laramie, WY

When I first looked into a microscope and found living creatures, I was awestruck. I felt like Alice in Wonderland, in an alien world unlike any in my everyday experience. But it was real. These were living beings, swimming with tiny flagella, going about their frenetic business and reacting to their chemical signals in an ocean contained in a tiny drop of water.

I still wonder at the miracle of life—that I live and think and understand something about these tiny creatures that are an essential part of our world. Some years earlier, I had learned that existence is largely made out of intricate, nested, complex systems. I am overwhelmed by a feeling of gratitude, thankful for whatever gave birth to life's complexity. I was amazed to read that the most complex object in the universe is the sentient brain, because its cells have a super-astronomical number of interactive connections.

Such information can be a source of awe and wonder as great as a golden sunset or a baby's laugh, but it cannot define our values or describe the purpose of existence. It can uncover the beauty of details and describe love between living creatures. It can assure us that nothing we do is inconsequential. But it is religion that tells us that meaning is real, that purpose includes love and beauty, that life is precious, and that creation is a gift, whatever its Source.

—Cary Neeper, speculative
fiction author, Unitarian Universalist Fellowship of Redwood City, CA

Some years ago, a colleague began attending my UU congregation. After several weeks, he approached me at the end of a service and said, somewhat perplexedly, "This isn't a religious society. It's a moral society." I asked him what religion was, and he mumbled something that included the word *God*. I said that, to me, religion was about my relation to the universe, and that every UU service I ever attended was, in that sense, religious.

I'm a scientist, and science is also about my relation to the universe. Although that scientific relationship may be more oriented toward discovery and knowledge, it also informs my personal, religious relation to the universe. So how could there be a conflict between my religion and my science, when they're so closely related?

A somewhat cynical view of science and religion suggests that the more we uncover the secrets of the universe, the less wondrous the universe becomes, the less worthy of our admiration and worship. But the more science informs me about the universe and its workings, the more I feel awe, appreciation, and reverence. Consider: It's all made from a handful of quarks and a few other

particles, and some simple laws that govern their interactions. That sense of awe and reverence is enough; there's no need for a creator, a guide, or even a greater purpose.

What about personal mortality? For me it's enough to have participated, however briefly, in the unfolding cosmic drama. I've been here, I've done what I've done, and when I'm gone there's nothing that can undo those deeds. I'm content to have been host to a handful of atoms that, for a brief moment, have had the privilege of participating in the miracle of consciousness.

—Richard Wolfson, physics professor at Middlebury College, Champlain Valley Unitarian
Universalist Society,
Middlebury, VT

I see everything in terms of the interdependent web of all existence. As an ecologist, I know this web to be physical. It is comprised of particles born of our early universe, whirling around each other in tiny and intricate patterns of attraction and repulsion. It is expressed in the reliance of individuals and groups upon each other for survival and well-being: in photosynthesis and respiration, in the carbon and hydrologic cycle, in symbiotic relationships. As a religious person, I also know this web to be comprised of the spiritual and emotional energy we exchange in our interactions with each other and everything around us. *Godis* the word I use to describe this energy, and so I say that God arises within us and between us: not the omnipotent, omniscient Creator of all, but the force that connects us to each other and everything around us.

My experience as a scientist and a person of faith has taught me to trust in life's intricate and evolving web. Science seeks to understand the web, and religion seeks to ascribe meaning to it. For me, these two ways of knowing inform each other. Having an understanding of ecological processes increases my sense of awe and brings me to a heart-knowledge of God.

—Rev. Karen Quinlan, MS from SUNY College of Environmental Science and Forestry,
Minister at James Reeb
Unitarian Universalist Congregation, Madison, WI

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For Further Reading

Gary Kowalski, *Science and the Search for God* (Lantern)

Jeffrey Lockwood, *Grasshopper Dreaming: Reflections on Killing and Loving* (Skinner House)

Fredric Muir, ed., *The Whole World Kin: Darwin and the Spirit of Liberal Religion* (Skinner House)