

# *Does science make belief in God obsolete?*



*Stuart Kauffman*

## **No, but only if...**

we continue to develop new notions of God, such as a fully natural God that is the creativity in the cosmos.

Humans have been worshipping gods for thousands of years. Our sense of God in the Western world has evolved from Abraham's jealous God Yahweh to the God of love of the New Testament. Science and faith have split modern societies just as some form of global civilization is emerging. One result is a retreat into religious fundamentalisms, often bitterly hostile. The schism between science and religion can be healed, but it will require a slow evolution from a supernatural, theistic God to a new sense of a fully natural God as our chosen symbol for the ceaseless creativity in the natural universe. This healing may also require a transformation of science to a new scientific worldview with a place for the ceaseless creativity in the universe that we can call God.

We must "reinvent the sacred," but it is dangerous: it implies that the sacred is invented. For billions of believers this is Godless heresy. Yet how many gods have we worshiped down the eons? It is we who have told our gods what is sacred, not they who have told us. This does not mean that what we deem sacred is not sacred. It means something wonderful: what we deem sacred is our own choice. At this stage in the evolution of humanity, are we ready to take responsibility for what we will claim as sacred, including all of life and the planet? If so, we must also avoid a dangerous moral hegemony and find ways to allow our sense of the sacred to evolve wisely as well. Reinventing the sacred is also likely to anger many who, like myself, do not believe in a supernatural God. For many of us, the very words "God" and "sacred" have become profoundly suspect. We think of Galileo forced to recant his heliocentric views by the Inquisition. We do not want to return to any

form of religion that demands that we abandon the truth of the real world. We think of the millions killed in the name of God. We often ignore the solace, union with God, and the orientation for living that religion brings.

I believe that reinventing the sacred is a global cultural imperative. A global race is under way, between the retreat into fundamentalisms and the construction of a safe, shared space for our spirituality that might also ease those fundamentalist fears.

The new scientific worldview is just beginning to become visible. It goes beyond the reductionism of Descartes, Galileo, and Laplace in which all that occurs in the universe is ultimately to be described by physical law. In its place, this new scientific vision includes the emergence of life, and with life, of agency, meaning, value, doing, hence of "ought" and ultimately our moral reasoning. The rudiments of morality are already seen in the higher primates. Evolution, despite the fears of some faithful, is the first source of morality. While no law of physics is broken, the emergence of all this in the natural evolution of the biosphere cannot be deduced by physics alone.

What we think of as natural law may not suffice to explain nature. We now know, for example, that evolution includes Darwinian pre-adaptations—unused features of organisms that may become useful in a different environment and thus emerge as novel functionalities, such as our middle ear bones, which arose from the jaw bones of an early fish. Could we prestate all the possible Darwinian preadaptations even for humans, let alone predict them? It would seem unlikely. And if not, the evolution of the biosphere, the economy, and civilization are partially beyond natural law.

If this view holds, then we will undergo a major transformation in our understanding of science. Partially beyond law, we are in a co-constructing, ceaselessly creative universe whose detailed unfolding cannot be predicted. Therefore, we truly cannot know all that will happen. In that

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case, reason, the highest virtue of our beloved Enlightenment, is an insufficient guide to living our lives. We must reunite reason with our entire humanity. And in the face of what can only be called Mystery, we need a means to orient our lives. That we do, in reality, live in the face of an unknown is one root of humanity's age old need for a supernatural God.

Yet our Abrahamic God is too narrow a stage for our full human spirituality. In the Old Testament, this God created the world and all its creatures for the benefit of humanity. How self-serving and limiting a vision of God. How much vaster are our lives understood as part of the unfolding of the entire universe? We are invited to awe, gratitude, and stewardship. This planet and this life are God's work, not ours. If God is the

creativity in the universe, we are not made in God's image. We too are God. We can now choose to assume responsibility for ourselves and our world, to the best of our limited wisdom, together with our most powerful symbol: God, as the creativity in the natural universe.

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