

- Sh'ma - <http://www.shma.com> -

A Revolution in Science and Religion

Posted By [admin](#) On October 5, 2009 @ 7:51 pm In [Mystery & Awe](#) | [No Comments](#)

Howard Smith

The New Year season, an annual opportunity for introspection, is not really over until after the story of the creation is read again in the weekly Torah cycle: "In the beginning." And so each year, in the waning moments of the Jewish calendar's period of self-reevaluation, we are asked to think about our origins and the mysteries of existence and to wonder what to make of a Bible that seems to address — and answer — questions of science. While tradition assigns an age of 5770 years to the world, the measurements that comprise the "big bang" description find the universe is 13.7 billion years old. What does this apparent conflict between science and religion mean, especially when the power and truth of science are acknowledged by virtually everyone?

There is news for anyone committed to intellectual honesty: It's no longer an issue. Here's why. The "god of the gaps" — the derogatory term used to describe a divinity invoked when we do not understand something — is now dead. For centuries scientists could only speculate or brag about the possibility of deciphering all the puzzles of nature, but just in the past 20 years — not earlier — has science provided answers with some confidence to the fundamental questions that used to be the sole domain of religion, especially the two big ones: How was the universe created? What is the nature of life?

In my field of physics and astronomy, the big bang description has been resoundingly confirmed while other options have been rejected. New instruments expect to achieve astonishing accuracies of one percent in their measurement of details in the unfolding of creation. Meanwhile, in biology, the human genome project has successfully placed life and its complexity under a microscope. This means that for the very first time in human history we can plausibly, if timorously, respond "yes" on behalf of Job, whom God challenges: "Speak up if you can understand [the creation]." (Job 38: 4)

Sophisticated readers of Sh'ma may feel like shrugging off my observation as old news. Whatever the details of creation — billions or millions of years — most people assumed that science would find answers. But as the pieces of the world puzzle come together, our relationships with God and Torah mature irrevocably. For those of us who are religious, this revolution means that faith is not the result of being ignorant but is an acknowledgment of a sanctified relationship. It also means that attentiveness to Torah requires a deeper new understanding of its message. An example: We, like Adam, are made of "adamah" — the dust of the earth. But today we know that this is not just poetic speech but concrete certainty. That dust, however, was not made during the big bang but long afterward, in the nuclear furnaces of stars that have since died as supernovae. Matter was tediously assembled into life through an intricate, finely balanced, time-consuming, and I would even say miraculous dance. Torah's imagery is not about magical incantations, but about fine craftsmanship; the world is far more amazing than tradition suggests, and it reveals its treasures through attentive observation and rational inquiry.

On the other hand, for those of us, including secularists, who recognize the power of science, the revolution lets us approach Torah freed of the distracting, dubious baggage of having to provide satisfying answers to the mystery of origins. Our knowledge of the world is the fruit of our intellectual efforts, and our relationship with the world is the domain of our tradition. Torah's message to the secular is that we are one family, with responsibility for our fragile garden. Moreover, confidence in science by no means implies that we know everything. On the contrary, the mysteries increase in number as our questions become more sophisticated. We have only recently discovered dark matter and dark energy; they amount to 95 percent of the essence of our universe and we have no idea what they are. Scientists are admirably honest about admitting ignorance; we do not know it all, regardless of our scriptures or our egos. Science is in a position curiously reminiscent of the mythical cosmology in which the earth sits on the back of a giant turtle standing on the back of another turtle. When asked what the bottom turtle stands on, the philosopher is reputed to have replied: "It's turtles all the way down." Science finds new questions all the way down. Not only does the living God reveal to us something deeper of these mysteries, secrets that our forebears did not understand, but we also acknowledge that future discoveries (and puzzles) await our children.

The power of the scientific method is that every single person will see and hear exactly the same

thing. Mistakes of interpretation will be found and fixed; cumulative wisdom grows and as it does we gain in understanding about God's "Book of Nature." In contrast, our relationship with the holy is communal and personal, and sanctified. Together our mind and our spirit, and our shared and our personal experiences of the Divine, enable us to live in the natural world both aware of and grateful for its blessings, as Psalm 92:6–7 urges. Neither domain of reality (religion and science) should be denied or ignored; both should be embraced as we attempt to reach new levels of wonder, gratitude, responsibility, and — perhaps — holiness.

Article printed from Sh'ma: <http://www.shma.com>

URL to article: <http://www.shma.com/2009/10/a-revolution-in-science-and-religion/>

Copyright © 2009 . All rights reserved.