

Earth Day 2015: The Universe Story

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delivered at The Unitarian Universalist Church of the Lehigh Valley, April 19, 2015

This Wednesday we will celebrate Earth Day for the 45th time. Ecological awareness has come a long way since 1970, but it seems that the horizon keeps receding no matter how much progress we make. Our understanding of humanity's influence on the life of our planet has been growing faster than our ability to adapt. Sometimes it feels like we're running across the ocean, chasing a wave of our own making – always ahead, always out of reach.

I believe that humanity is being called to evolve into a new relationship with the earth, based on a new understanding, a new story of what it means to be human and alive at this moment in history.

But first, we need to take a look at where we've come from, taking the time to examine the old stories – what they did for us, and why they became obsolete.

The first human story arose out of humanity's evolutionary epoch – the millennia during which we evolved into the species we are today. This takes us back almost two million years, and most especially a couple of hundred thousand years ago, when *homo sapiens* first appeared.

During this epoch, humans lived mostly in small communities of hunter-gatherers – 75, 100, maybe 150 people at the most. They lived close to the land and so were intimately dependent on their relationships – with each other and with their environment. Their minds, as sharp and as keen as our own, were acutely aware of subtle variations in weather, vegetation, and animal behavior. In this setting it must have been obvious that there were things they could count on and some things that they couldn't.

Causality wasn't completely clear to them at this time. What was clear was their close, intimate relationship with the earth and its plants and animals. The story that emerged in this setting was a kind of animism, a respect for the unique nature of each living thing.

So they experienced their life as a complex network of interconnected relationships. They honored the spirit of the animals they hunted, they honored the spirit of the plants they gathered. They also honored the spirits of the sun and the rain and the moon and stars, rivers, mountains and valleys, all of which seemed to be somehow beyond their grasp and yet whose influence powerfully affected their lives and their communities.

They honored the unique spirit of each human birth as well as that of every creature, animal or plant. They lived in a world that was alive and bounded by their ability to cooperate with other living things.

We've been able to see glimpses of this way of living through anthropological discoveries of what we have called "primitive" peoples. By "primitive" we mean untouched by what we call "civilization." We have been impressed by the quiet integrity of these people, and the ease with which they accept the vicissitudes of their lives. But we know that, for us, the story by which they live is obsolete. We may admire it, even attempt to emulate it in some ways, but it's too far from our experience for us to fully enter into their world of living spirits.

The reason for this is that their way of living in the world became obsolete. This change began around 12,000 years ago with the domestication of farm animals, when humans began to control the breeding and destiny of other species. And as agriculture emerged, the early spirits of the land took the form of fertility gods that could influence or protect the bounty of their harvests.

But things really began to change with the development of large-scale agriculture around 8,000 years ago, because it made cities possible. These much larger communities dedicated to the sowing, tending, and harvesting of large crops eclipsed the small tribes of the former epoch. By providing a large and reliable source of food, agriculture made civilization possible. People could stay in the same place for generations, putting down roots that were unknown during the earlier epoch. Humanity was no longer struggling to survive as much as it was learning how to thrive.

But one apparently inevitable consequence of this massive change was the development of government. Human communities that had once functioned,

essentially, as large families, now needed leaders, hierarchies, and laws. Civilization began, laws and legal codes developed, and harsh punishments characterized their enforcement. What once were closely connected intimate communities became rigid, regimented, and authoritarian. The old stories no longer rang true.

It was at this time when the monotheistic religions began to spring up. Historians sometimes describe this as a positive development, compared to the multiplicity of minor and major gods that had characterized the earlier epoch, but I'm not so sure.

Just as the shared authority of a large family system was displaced by a hierarchy of powerful rulers, these new religions replaced the many nature gods with one or more uniquely powerful entities that belonged to a sphere of existence out of the reach of the ordinary person, so religion needed priests, just as their communities needed emperors and kings.

This produced a system of hierarchical relationships of ever-increasing authority and power. These authorities could control large numbers of people for good or for ill. The universe story that emerged from these developments was radically different from the gentle animism of the earlier epoch. It was a story of powerful control and domination. There was a uniquely powerful god in charge of everything, and there were uniquely powerful rulers who could control everything and everyone. This story gave rise to the human belief in dominating and controlling our environment.

If the first story was based on human survival, this next story was based on human thriving, with all the implications that suggests. No longer was it sufficient to merely get enough to eat – people wanted the leisure, luxury, and comfort that their agricultural and urban abundance made possible. With the rise of cities, individuals began to want more – ever more – and over the millennia, they learned how to get it. Many called this “progress.”

But the story is clearly one of humankind's dominion over the earth. All of creation was seen as things to be used rather than a living network of intimate relationships. Nations conquered other nations, and everyone did their best to

satisfy their needs and desires by learning to control and manipulate the earth's resources.

This story, the way of civilization and conquest, domination and control, held sway for about ten thousand years (and if you look really hard, you can still see it today).

But, about five or six hundred years ago, something began to change. The scientific method emerged by setting aside the deference to divine authority and control that had previously stood in the way of a deeper understanding of the physical universe. The results of this seemingly small shift in perspective were far more dramatically transformative of human civilization than anyone could have expected.

Humanity's ability to influence and control its environment grew exponentially over the centuries through scientific discoveries and the industrial revolution. Viewed in the context of the history of our species, these changes are mind-boggling. They arguably reached their apex with the detonation of the first atomic bomb in 1945. Robert Oppenheimer, director of the Manhattan Project that developed the bomb, said later that, "We knew the world would not be the same. A few people laughed, a few people cried, most people were silent. I remembered the line from the Hindu scripture, the *Bhagavad-Gita*: . . . 'Now I am become Death, the destroyer of worlds.' I suppose we all thought that, one way or another."

And thus humanity succeeded in taking the power that had once belonged to the gods. The power that had once belonged to the ruler of the universe was now in human hands. We are living with the results of that change: the enormous increase in our human capacity to alter and shape the world to our whims. And this change has wrought consequences far beyond our capacity to foresee: humans have become so potent and dominant a force that evolution no longer shapes the planet as it did for billions of years.

It's now widely thought that the Earth is on the brink of a sixth mass extinction of species. This has happened five times before, when the majority of the species of life on Earth have been wiped out, either by changes in the chemistry of the planet or natural catastrophes. The difference with this one, the sixth mass

extinction, is that it is being caused by the effects of human activity. This means that humanity isn't just suffering from the changes to our planet; we are the cause.

This is why many thinkers, including Brian Swimme and Michael Dowd, have described our current period as the end of the Cenozoic Era, which dates from the extinction of the dinosaurs until now, sometimes called "the age of mammals." They have suggested a new term, "The Ecozoic Era," to describe the conditions under which evolution is now operating. Which species live or die is now up to us to decide, either passively as a result of our actions, or actively as we recognize and accept the responsibility for our new place in the grand scheme of things. This new place requires a new story to explain the world in a new way.

They point out that the old story of either human or divine authority can no longer sustain us. In a sense, we need to find our way back to the Garden, to some of the worldview of humanity's ancient evolutionary epoch when we saw the earth and all its parts as living beings with which we were in relationship. But that worldview is so distant, it seems impossible to recapture.

And so we are called upon to use our new wisdom, our new scientific understandings, to help write the new story. We now know that the universe wasn't created in six days by an almighty god. It emerged in what has been called the "big bang," but which Swimme suggests we think of more as a "Primordial Flaring Forth." In his book, *The Universe Story*, he writes that, "Originating power brought forth a universe. All the energy that would ever exist in the entire course of time erupted as a single quantum – a singular gift – of existence. If in the future, stars would blaze and lizards would blink in their light, these actions would be powered by the same numinous energy that flared forth at the dawn of time." He continues, "Though the originating power gave birth to the universe fifteen billion years ago, this realm of power is not simply located there at that point of time, but is rather a condition of every moment of the universe, past, present, and to come."

This new understanding of the beginning of the universe makes it impossible to maintain the traditional separation of the universe from those who studied it. Swimme wrote that "This concentrated study of matter concluded that the universe is not just a vast 'out there,' but is rather an 'in here.' Numinous fire became, over

fifteen billion years of creativity, the here and the now – a moving endpoint of development, one that happens to include communities of living beings.”

Swimme continued, “Mathematical cosmologists look about themselves and see the stars and galaxies and ask, ‘What is the nature of the fireball that could enable the development of these structures?’ Out of the very discoveries they have made, we are now emboldened to extend such questioning: ‘Given the existence of mountain wildflowers, what is the nature of the Flaring Forth at the beginning of time? Given Mozart’s symphonies, what is the nature of the dynamics of the universe that could have led to such structure? Given the care with which a mother lark will nurture and protect her young, what is the universe made of? Given the direct influence humans have on the function of the planet, what are the long-range consequences human activity will have on cosmic evolution?’ ”

These are huge questions indeed, and they are made even more relevant by recent discoveries in quantum physics that have demonstrated that subatomic particles, although separated by space, can be observed communicating instantaneously, thought to be impossible by any former models. Despite any appearances to the contrary, all of the universe is one in energy and substance, just as the primordial flaring forth was all one.

A deep examination of things from this perspective begins to reveal a new principle, as fundamental and foundational as entropy, the second law of thermodynamics. It has been called the “Cosmogenetic Principle,” which states that there are form-producing dynamics at work everywhere in the universe. This parallels what I have previously referred to as “the anti-entropic force,” which can be seen as a non-religious interpretation of what had been seen in earlier ages as the Creator God.

There is a force in the universe which calls upon matter, energy, and everything, into higher forms of organization. Swimme sees this as the only viable explanation for what has happened since the primordial flaring forth. This organizing principle works upon each layer of existence from a level just above. Just as atoms become molecules because of forces of which they are not aware, deer and

antelope gather together in herds for reasons they do not directly understand, and humans long for ever deeper understandings that always seem just out of reach.

Michael Dowd's version of the new story is based both in scientific discovery, but also reverence for the awesomeness of the universe. A better metaphor, [he says], "is a set of Russian nesting dolls, made up of levels of . . . nested creativity: subatomic particles within atoms, within molecules, within cells, within organisms, and so on. Each level is uniquely creative, that is, has the power to bring forth something new into existence. Stars create atoms; atoms create substances like the oxygen we breathe; human cultures create art, religions, and technology. The largest nesting doll is God – or Allah, Adonai, Source of Life, Ultimate Reality, Nature, the Universe, whatever name describes the divine whole for you, the ultimate creative reality that includes and transcends all other levels of reality. God is not outside of creation. God is an integral part of it – in fact, *is* it.

"In this metaphor, we humans are nested within that divine whole. We are not plunked here by a maker separate from us. Nor is our existence a meaningless evolutionary fluke. The basic elements that make up our bodies – carbon, calcium, iron – were forged inside supernovas, dying stars, and are billions of years old. We are, in fact, made of stardust. We are intimately related to the universe. As . . . Julian Huxley put it, 'We are the universe becoming conscious of itself.' "

Huxley was instrumental in the development of the Humanist Manifesto, which called for a new religious understanding, one based in the world, not outside of it. It declared that human beings were a part of nature, and that the scientific method could help us deepen our understanding of who we were. David Bumbaugh, professor of ministry at Meadville-Lombard Theological School, explains that, "To the first humanists, nature was not a 'created reality,' but a natural self-evolving process. That's very much at the heart of the Universe Story. It sees the world as emergent rather than created, and human beings as a product of that world, not created to master the world."

Unitarian Universalists have been especially responsive to this story, as it harmonizes with much of what we have been working for. As Amy Hassinger wrote in the UU World in the spring of 2006, she said, "The Great Story brings mysticism to

humanism. It brings science to paganism and our historical Transcendentalist roots. Within our denomination, the Great Story may just be the theological bridge we've long been searching for in our collective spiritual journey."

Brian Swimme concludes his book with this reflection: "What we seldom think about is the human as species. We will never come to appreciate the full significance of human adjustment in this new biological era until we begin to think of the human as a species among species. . . ."

I believe that we need a new story for our presence here and now in the universe, a story that is based on our inseparable interconnection with every part and parcel of the cosmos. This new story would respect both theistic and atheistic perspectives as all come to recognize the universal creative force that acts simultaneously everywhere and in every moment, calling us to ever greater connection, further evolution, and deeper understanding. May we rejoice in the ongoing celebration of cosmic creativity of which we are a part.

May it be so.