

Super. Natural. The Co-evolution of Science and Spirit

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A few weeks ago, Ann and I were driving across the Nevada desert with our daughter, from Yosemite to Utah. People like to use the word “desolate” to describe that part of the country, but I think it’s beautiful. Anyhow, somewhere in that 12 hour drive (speed limit 80, we averaged 88) we blew past a huge billboard: There Is Evidence For God! Call 855-FOR-TRUTH!

Our daughter, who was driving at the time, was a Master in Divinity student at Union Theological Seminary in New York to become a UU minister. She and I just smirked at each other, and I started dialing. Cheap entertainment.

I was pretty disappointed in the quality of the arguments they made on the recorded message, but one quote stood out as relevant to this morning’s service. I found it online after our trip; let me read it to you. By the way, if you want to read the whole thing, it’s at gospelbillboards.org. They said:

“Whatever begins to exist has a cause. The Universe began to exist. What caused it? It only makes sense to assume that it was caused by one who preceded the universe. Who but God meets that criteria?”

There are some logical fallacies there, but just hold that thought in your mind, the thought that any cause great enough to bring an entire universe into existence has God-like powers.

This morning I want to share some thoughts I’ve had recently about three moments in the history of science, moments that feel kind of familiar. I’ll title them “spirit, heaven, and miracles” just to be deliberately obtuse. You’ll have to pay attention to see what these have to do with science history. Hopefully you’ll forgive me in the end.

Spirit. The word “spirit,” and all its derivative forms like spiritual, spirituality, inspiration, conspiracy, even the word spiracles (which are the little abdominal openings that insects breathe through) and many other words, even church spires; all these words come from the Latin root *spiritus*, meaning breath. Not soul, not gods or ghosts, not enlightenment or holiness, just, Breath.

The Latin word for **soul** was *anima*, which came from an earlier Indo-European language, in which soul, too, meant breath. So all these terms we have for spirits, souls, and the supernatural have their origins in breath, in breathing. In ancient times there was no word for “air.” There was only what we would call the movement

of air, breath, wind. And this movement, this occurrence you could feel but not see, was called "spirit." It was invisible, unpredictable, and when it left you, you died.

What we call wind and the ancients called spirit was how the gods interacted with the mortal world, knocking down trees and houses during storms, filling the sails of ships (or not), restlessly moving leaves and hair and rustling the wheat fields with ghostly hands. It wasn't a thing, it wasn't air - we had no word for air; It was spirit. You see? When a gust moved some leaves around, it was the doing of *literal* spirits, breaths. It was not part of the mortal, natural world, it was an interaction, a communication, from the gods TO our world.

There's an old joke where one fish says to another "how's the water?" The other fish says, "what the hell is water?" It takes a huge leap of cognitive abstraction to recognize that this emptiness we move through is actually a thing, let alone to *name it* as a thing.

So centuries passed before natural philosophers, who we now call scientists, learned that this apparent emptiness around us can be compressed and stretched like a spring, and is made of tiny things so small as to be invisible. Air became a thing, a thing that mortals can manipulate, not supernatural at all, but completely natural! Still invisible, still ghostly, still sometimes destructive, but now somewhat predictable, subject to the same laws as anything else on earth.

Air, when perceived as a natural phenomenon, is far more exciting and wondrous than when conceived as the ghostly hands of spirits, because it allows us to discover the gases that comprise it, like oxygen, carbon dioxide, nitrogen, discoveries that literally connect each of us to everything else on the planet through...our breath, spiritus.

Enlightenment thinkers knew, and we still know, that there is something ineffable, something mystical about the difference between a living person and a body that just died moments ago. So they retained the word spirit or soul but gave it a new meaning. Instead of being about the formerly mysterious breath, air, wind, now understood as natural phenomena, now the word "spirit" became something else, something *still* ineffable and mysterious. The boundary between the natural and supernatural leaped outward, expanding the size of nature tremendously. Simultaneously, our concept of the supernatural shifted to something still mysterious - the invisible essence that living things have compared to non-living things.

Four observations to note here. One: Reality did not change. Two: our imagined boundary between the natural and the supernatural moved outward, not only expanding the natural, but Three: revealing nature to be more superlative, more

glorious than the supernatural conceptions of breath before the discovery of air, and Four: simultaneously redefining and expanding the supernatural into new, more interesting territory not previously considered.

Heaven. From ancient times until Galileo and Copernicus, the heavens were literally super-natural, as in, above nature. Not “above” as in better than, but as in directly located above the earth; literally *up there!*, just above the clouds. The Heavens referred to anything above the clouds, and not far above that were the stars, which were thought to be pinpricks in the celestial dome, like holes in a colander. Just beyond that, not far at all, was where God, the angels, all the saints and saved souls lived.

That shallow shell called Heaven was believed to be supernaturally perfect, in a way that the natural earthly world could never be. And it was right. up. there. You could build a tower to heaven.

Along came Galileo, and Copernicus, and Tyco Brahe. Galileo’s crime was not in contradicting scripture, it was that his notion of the earth orbiting the sun, governed by Newton’s new laws of gravity, made the heavens natural instead of supernatural. No longer separate, perfect, and incomprehensible, now heaven was mortal, predictable, natural, subject to the same earthly laws as falling apples. Terrible.

But notice: Galileo’s model expanded the heavens from a thin region above the clouds to an incomprehensibly vast region populated not by pinpricks in a shell, but billions of suns. The sun went from a meager chariot of fire to a being millions of times greater in size and power than any god dreamed or imagined at the time. Heaven, too, exploded in scope and power from a localized region of the sky populated by personified deities, to billions of *real* powers, *real* forces far beyond any previous notions of godly power. The heavens were bigger than we thought. A LOT bigger.

Rather than extinguishing mystery, Galileo’s model exposed us to new, grander mysteries, like nebulae (which turned out to be entire galaxies of stars) and later black holes, universal expansion, and star formation.

Understandably, our forbears weren’t ready to *completely* do away with a perfect heavenly realm, so they kept the *word* “heaven,” but re-imagined it to mean something present but unseen, a realm right here among us, but invisible, offset somehow. Sounds an awful lot like a parallel universe, doesn’t it?

Here again: 1-Reality is unchanged, 2-the boundary between the natural and supernatural shifts outward, 3-the natural world grows tremendously in glory and wonder, far surpassing previous notions of the supernatural heaven, and 4-we retain

the language of heaven, but re-assign it to the next frontier.

Miracles. In the 1890's there were many physicists who believed that physics was nearly finished. Sometimes Lord Kelvin is mis-quoted as saying, "**There is nothing new to be discovered in physics now. All that remains is more and more precise measurement.**"

Turns out he never said that, it was Albert Michelson in 1894, and that quote is a pretty rough paraphrasing of what *Michelson* said, but the sentiment was definitely there in the 1890's. Newton's laws, including the Law of Conservation of Mass, were thoroughly proven, understood to be universal, and any proposed exceptions to them would have been regarded as poppycock, superstition, pseudo-science. Like most physicists today, they would have reasonably regarded any observation that violated the laws of physics as miraculous or supernatural.

Then along came Pierre and Marie Curie, followed by Einstein, and Heisenberg, and Schrodinger, and Feynman. The Curies discovered radiation, which blatantly violates the law of conservation of mass. The Curies showed that things, real things, can literally disappear in a flash of light, *and vice versa*. Miracles! Miracles.

Notice: 1- Reality is the same. 2- Science co-opts the supernatural, the impossible, into the natural. 3- the natural understanding far surpasses the supernatural one in wonder, glory, beauty, and awesomeness. 4- Our conception of the supernatural moves on to new frontiers.

Remember that billboard I started out with? The quote from the telephone message was:

"Whatever begins to exist has a cause. The Universe began to exist. What caused it? It only makes sense to assume that it was caused by one who preceded the universe. Who but God meets that criteria?"

I can't help but quibble a bit; It's not *necessarily* true that the universe had a cause, 'cause cause and effect don't mean much before the beginning of time. But I do have to agree with their conclusion!

Their approach applies to all three of the discoveries I described - who but the gods have the god-like power to move leaves without touching them and to breathe life into inanimate flesh? Who but God has the god-like power to set celestial bodies into the firmament? Who but God can transmute matter and energy?

I'm not referring to any specific understanding of God, and I'm not suggesting we be less rigorous in distinguishing science from pseudo-science. I'm advocating for

humility. I'm pointing out that **the difference between the natural and supernatural is largely *semantic*. It's academic if you pay attention to how they co-evolve as concepts.**

They are like clouds and rain; the distinction between them is ... not worth fighting over. It's not a binary, either/or system. It's an evolving, ambiguous, both/and system.

What's usually missing from the wider conversation today is the "super" part of the natural, the third of the four observations I noted earlier. Everything we know about weather and climate is supernatural by the standards of ancient Rome, but far more "super," more complex, more amazing than the Romans could possibly have imagined.

All of modern astronomy is supernatural by pre-enlightenment understandings, and infinitely more awesome than they could ever have dreamed. Every finding in nuclear and quantum physics is impossible according to the best minds of 1890, and to them, everything from computers to LED flashlights would have been regarded as miracles, not miracles of science, mind you, but supernatural miracles outside the laws of nature.

Science does not take the mystery out of nature. It doesn't grab the wondrous, the ineffable, the numinous, and drag it down into the mud and muck of mere physical existence. This natural world *is not* one of cold, hard, reality, purged of all beauty and poetry, though too many in the scientific community portray it as such. They use words like "nothing but" as in "nothing but chemistry in the brain" and they use the word "just" as in "just nuclear reactions releasing heat." No wonder many people of faith reject the scientific worldview!

Present in every "nothing but" is a "something more." In "nothing but atoms of hydrogen and oxygen" is the "something more" of waterfalls and rainbows. Present in "nothing but organic molecules" is the "something more" of that adorable paramecium that swam across your microscope slide in biology class. Emerging out of "nothing but cells exchanging chemical signals" is the "something more" of the tropical rainforest, with all its precious beauty and diversity.

Reality as science describes it today sings hymns of radiant joy, and offers promises of yet more super, natural wonders to come. Everywhere we can look, the natural world shouts of "something more" emerging from "nothing but" - beaches, butterflies, auroras, fractal-leafed ferns, and our own human selves. It is *helpful* to know that water is made of atoms, but it's *meaningful* to stand under a waterfall. Nature is both/and, both "nothing but" and "something more."

To the born-again Christian, the essence of a person is their supernatural immortal soul, inhabiting a physical body. To the neo-Atheist, a person's essence is an emergent expression of natural, nearly-immortal atoms precisely arranged in a physical body. In both belief systems a person's essence is ephemeral, numinous, abstract, not really a physical thing, but something... extra, something more. When we focus on the "nothing but," we not only miss the "something more" that nature offers, but we also close off conversation with those who are comforted by faith in something *even more*, which naturalists like me may, before long, regard as fully natural as we do breath.

For too long, too many of us have been stuck in a black-and-white, either-or thinking style that can't abide the paradox and ambiguity with which nature herself teases us. We want to be right, and nature replies: "Uncertainty is my law. Ambiguity is my essence. Paradox is how I roll." And then she smiles and says: "Get used to it!"

I'm here to suggest we get used to it. A good first step would be to stop with the either-or culture war, and align our thinking with the both/and universe we find ourselves in. Let's welcome people of faith into celebration of the natural world, without insulting their beliefs in something additional, something *even more*.

The billboard said "There Is Evidence for God." If God is what we call that aspect of reality that lies beyond the horizon of our imaginings, an ultimate level of nature with the power to blink entire universes into being, or entire multiverses into being, then *of course* there's evidence for God; we need only look past the horizons of our understanding to experience it.

Ann asked me: "What do you want people to take away from this sermon - what's the call to action?" This is a call for humility. Stop arguing about beliefs, even in the privacy of your own thoughts. Better yet, stop *caring* if there is a supernatural realm or not, and try walking around in naked ambiguity for a while. Reality is super. It's natural. It's bigger and wilder than we can even imagine. And we are so young in the universe.

Let's enjoy the "in-spiring" sunrise of discovery, even as we look out over a dark but promising ocean of the unknown. Let us breathe together as one with those who look to those distant clouds and perceive a kindly face, as well as with those who see the "something-more" beauty that atoms and light can make. Let us breathe in spirit together, looking outward, and know that all is well in the universe.

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Parting Words/Benediction:

From [Marjorie Newlin Leaming](#):

“Remembering that the universe is so much larger than our ability to comprehend, let us go forth from this time together with the resolve to stop trying to reduce the incomprehensible to our own petty expectations, so that wonder—that sense of what is sacred—can find space to open up our minds and illumine our lives.”