

The Elegant Universe

Rev. David Owen

Reading

Nature, Ralph Waldo Emerson

If one would be alone, let them look at the stars. The rays that come from those heavenly worlds, will separate between him and what he touches. One might think the atmosphere was made transparent with this design, to give man, in the heavenly bodies, the perpetual presence of the sublime. Seen in the streets of cities, how great they are! If the stars should appear one night in a thousand years, how would men believe and adore; and preserve for many generations the remembrance of the city of God which had been shown! But every night come out these envoys of beauty, and light the universe with their admonishing smile.

The stars awaken a certain reverence, because though always present, they are inaccessible; but all natural objects make a kindred impression, when the mind is open to their influence. Nature never wears a mean appearance.

Neither does the wisest man extort her secret, and lose his curiosity by finding out all her perfection. Nature never became a toy to a wise spirit. The flowers, the animals, the mountains, reflected the wisdom of his best hour, as much as they had delighted the simplicity of his childhood.

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Sermon

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It seems that so many of life's answers are dependent upon the question that one asks. There was a funny book by Douglass Adams entitled the Hitchhiker's Guide to the Galaxy, in which an advanced space-age civilization built a computer that came up with the answer to life, the universe, and everything, which as it turned out was 42. The problem was is that in order for the answer to make any sense whatsoever, they had to then build an even bigger computer to discover what the actual question was.

Questions are important, perhaps even more than answers. I understand the fundamental question to be "how shall we exist?" We find ourselves existing, and our response to this is to try to uncover what we should do with our existence. The question of how shall we exist is at its core, a religious one. And all of our discoveries about existence that help us live the answer to this question can be understood as religious as well.

As the human race evolved over time a new outlook arose that distinguished itself from religion, called science. Science has endeavored to make discoveries about existence, but unlike religion, science has sought to explore the universe detached from the questions of how we should live. Because of this, we generally call science objective. This has created a history of disagreement between objective science, and the very human centered philosophies of religion. In some cases it would appear that science and religion are completely at odds with one another.

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Yet religion and science do seem to meet in a rather odd way. If you look at how scientists and theologians view the world, objectively, you could say that they share a general philosophy that resembles paranoia. By this I mean that rather than taking our sense of things for granted, scientists and theologians treat reality like a vast cover-up, seeking to expose the truth like a grand conspiracy of sorts. I'm reminded of a recent clip from a new Woody Allen movie where someone is telling him that there's a word for people like him who think there's a secret conspiracy behind everything, to which Allen responds "yes, there is a word for it, its called perceptible!"

While everyone else is happy with the way things appear, scientists and theologians make the claim that all is not as it seems, that beyond appearances there are secret things going on. What's more, these secret things are what's really real.

If you think about, one might conclude that the concept of God is a bit like the ultimate conspiracy theory. The power and meaning behind the scenes, always operating in life, yet always hidden and secret. God is a way approaching what is ultimately real, a way of reaching toward wholeness in a world where our experience and knowledge is finite and partial.

For the physicist, there is an attempt to objectively go behind the curtain of everyday observations, and discover the way in which these diverse events are unified and grounded. For modern physics, this has become a quest for the ultimate theory of everything.

In the last hundred years in particular, the collective effort of numerous physicists has revealed some of nature's best kept secrets. These explanatory

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gems have in turn opened vistas on a world we thought we knew, but whose splendor we had not even come close to imagining. Albert Einstein gave a vivid description of his lifelong quest to understand gravity as “the years of anxious searching in the dark, with their intense longing, their alternations of confidence and exhaustion, and final emergence into the light.”

I imagine these words describe the whole human struggle, and describe our yearning in a way that is both scientific and religious. In our quest for truth we are bound to the earth and our immediate experiences. Yet through the power of thought and imagination we have probed the far reaches of inner and outer space.

The idea of science and religion coming together has always had a strong appeal. However the results have been mixed at best. On the one hand I've had the opportunity to see brilliant physicists doing horrible theology as they attempt to explain how they've discovered a place for God in some abstract equation. On the other hand I've watch creationists using horrible science to explain away evolution in favor of a literal interpretation of the Biblical creation story. I have to admit that I have a dual attitude about the topic in that I am both wary and attracted to the idea of science and religion meeting on common ground. And yet in the end, I do indeed see similarities in the stories that science and religion tell.

Our myths have been transformed over the years, but the essence remains the same. The essence of the myth seems to be something like this; at one point we were unified, and now we are separate. Thus we find ourselves alienated from the whole, and this estrangement is the source of both great possibility as

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well as great sorrow. In our existence we seem to be confronted by equal portions of chaos and order, living between pure freedom and fate. But this myth, like all stories, has an ending, which continues to call to the deepest reaches of our soul. The end of the story is that in the future we shall return to that unity once again.

Western religion puts this in human centered terms, and it has been told as the story of falling away from the Divine. This theme has simultaneously been called the original sin as well as the original blessing. It is rooted in the human situation in which we experience both separation as well as connection. This seperateness is a blessing that gives rise to individual uniqueness and the diversity of all life. It is a burden in that we may not always be aware of the ways in which we are connected to each other and the world. However this religious theme also speaks to a spiritual yearning to exist in harmony with the web of life, and for many religions, a return to this harmony is the ultimate purpose of our existence.

Like western religion, western science has produced a similar theme, except it is in non-human terms. This is the idea of the big bang where at one point in time the universe was unified into a single point, and then exploded into an ever-expanding universe. Through the massive celestial forces stars form, planets are created, and black holes, super novas, comets, and other cosmic creations emerge. Western science also believes that at some point in the future, the universe will in fact return once again to this single unified point, and for but a brief moment in time, harmony will be restored.

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At some point the cosmic story and the human story converged and existence became aware of itself, and even more importantly, through us the universe began to try to understand itself. And so it is that humankind reaches for the stars to understand itself better. From ancient Egyptian and Mayan civilizations who charted the stars building pyramids and creating calendars to match their relation to the earth, to the launching of the Hubble telescope that peers thousands of light-years into space, humankind has endeavored to make sense of our surroundings. And the more we know, the more mysterious it all becomes.

What the scientist Newton once thought to be a straight-forward universe composed of space and time has become infinitely more complex since Einstein's theory of relativity. Now physicists understand space and time to have bends and curves in it. The faster one travels through space, the slower time flows, until one reaches the speed of light when time stops altogether.

If this isn't strange enough, the cutting edge of science has turned from the farthest reaches of space to the smallest subatomic particles in an attempt to understand what the universe is made of. The study of what is known as quantum physics continues an atomic understanding of reality, but the atoms are not little bits of stuff—they are little tiny events. The closer you look, the more solid material de-materializes into dance patterns, waltzes and tangos of quanta and quarks.

As science reaches even further in its quest for truth, the newest speculation is that even quanta and quarks are made up of smaller building blocks that consist of tiny vibrating loops known as strings. Depending on how these

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strings vibrate, the qualities of energy, mass, and gravity are produced. Like any good conspiracy theory, string theory has some elements to it that defy our normal observations. Perhaps the most mysterious and hard to grasp aspects of string theory is that it introduces us to the idea that our universe is actually made up of 11 dimensions that are beyond our power to observe.

If all this sounds unbelievable, I assure you that you're not alone. It seems that every new discovery opens a vista of greater mystery and wonder. It's like what Socrates said "I have traveled to the edge of knowledge and it's not only further than we imagined, it's further than we can imagine." It is too bad that science and religion have so often been at odds with one another. I am by no means an expert in science, my field is religion. However, I do think that such scientific discoveries can be understood spiritually.

For when I read about these scientific ideas, I can't help but feel there is something altogether miraculous going on. The fact that tiny subatomic vibrating strings can create a world with joy and hope and friendship seems quite profound to me. That these strange forces within our universe have mysteriously conspired in such a way that I can witness such things as beauty or love, gives meaning to the word grace. Our lives exist in an exquisite mystery, and science and religion move hand in hand in revealing the supreme elegance of the universe we live in.

Science may not be able to provide us with doctrines on how to live. But how we live may be influenced by understanding just how delicate, and even precarious our place in the universe is. That we exist at all is so unlikely that it would be a shame not to make the most of it. It would be a shame not to

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respond to life as a gift, whether one believes there is a giver or not. It would be a shame to assume that life is too ordinary to be appreciated and loved with all of your heart, with all of your soul, with all of your mind, and with all of your strength.

I believe that science becomes religious when the awesome-ness of the cosmos is revealed in its glory as an eternal dance of mass, energy, and mystery. Consider the stars and how gracefully they wheel through space in perfect rhythm, the planets spin and sweep always in the same way circling around the mother star, our sun. The intimacy of their dance remains beyond our comprehension.

Consider the earth, which dances and is danced upon. Faultless is the rhythm of the seasons, pivoting on its axis. Consider the microscopic building blocks of all things, a frenzy of subatomic particles phasing in and out, creating everything we encounter through their mystical dance.

All of this science discovering how amazing it is that the universe mysteriously plays for the dance of life. It is a sacred conspiracy so vast, so immense, that we shall probably never understand it. Yet we can be thankful to have been chosen to be partners in this great cosmic dance. And with a trust and a reverence that outreaches our knowledge of the cosmic melody, we may respond with gratitude in our hearts, kindness in our souls, and let our own dancing be a dance for joy