“WHEN SCIENCE AND RELIGION MEET AND GREET”

A Sermon Delivered by Rev. Bruce Southworth,
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Unitarian Universalist on Sunday, October 7, 2012

Readings

Liberal religion adopts an inquisitive mode, and seeks to speak of faith in modern terms and not through ancient superstitions. Our society is plagued by dualisms – mind/matter – spirit/body – and ancient, dualistic supernaturalism certainly lingers and fogs so much thinking. Modern science, however, opens new horizons of faith.

The first reading is titled “Outer Space” by Alan MacRobert, of Bedford, MA, Senior Editor, Sky and Telescope magazine. (Quest, Church of the Larger Fellowship newsletter, May 2008)

Where does astronomy, the study of the heavens, leave a location to put God? Where, in the vast, blazing, inhuman, uncaring cosmos, can God fit?

Space is beautiful but hostile. It is almost always unimaginably cold, empty, and changelessly dull – or unimaginably hot and violent. Whole galaxies are sterilized by x-rays blazing from their cores where stars happen to fall together – without regard for any living things that may be in the galaxy – blind, uncaring, ignorant. The outer heavens, so beautiful and inspiring from a distance, have zero moral content. This certainly seems like no seat of a caring God.

To find qualities we think of as God-like you have to come down from the sky to Earth. Only here do things get remotely friendly and supportive. Only here do you begin to find anything that could at all be seen as a sign of a benign God’s presence.

If anywhere in the universe you want to find such things as values, compassion, direction, purpose, a sign of anything higher, you have to look to people. There is no other place you will find them.

And not … [all] people show these godly presences very much of the time. These usually [do] come out … in our better moments – and at times when we deliberately pay homage to them. “The Kingdom of Heaven is among you.”

The exact location of God, as best I can tell, is in those small, close places where the … unphysical values of compassion and love and truth and justice and higher direction and purpose are present – there can be found God.

And – from an astronomer’s perspective – nowhere else.

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The second reading comes from the writings of naturalist John Muir:

"Nature is ever at work building and pulling down, creating and destroying, keeping everything whirling and flowing, allowing no rest but in rhythmical motion, chasing everything in endless song out of one beautiful form into another."

**WHEN SCIENCE AND RELIGION MEET AND GREET**

Thinking of our responsive reading, “Out of the Stars,” I am reminded of Conrad Aiken, born in Savannah, Georgia. He was a mid-20th century writer, our nation’s Poet Laureate, and a recipient of the Pulitzer Prize and the National Book Award among his honors. At age 11, he was at home, heard the shots, and then discovered the bodies when his father murdered his wife and then killed himself.

Local legend has it that he had arranged for his tombstone to be made in the shape of a bench “as an invitation to stop and enjoy a martini” beside his grave. His cemetery marker reads:

“Give my love to the world… Cosmic Mariner – Destination Unknown”

In one of his poems, he muses about a Casual Meeting with a stranger whose eyes say “an 'I love you, what star do you live on?'”

In another poem, he raises the eternal questions of our species, which are like

the lost cuckoo’s cry,  
piercing the traveller's heart. Wayfarer from afar,  
why are you here? what brings you here? why here?…

For me, these are the questions of mystery, curiosity, wonder, and awe that undergird and inspire both religion and science.

This morning, I want to tell a few stories – stories from science, stories about how to approach Life, stories about what reality is all about, stories that speak of a reasoned, reasonable faith, and stories with intimations, if not complete definitions (!), about God – namely stories of the Spirit of Life that lives within and around me… within and around you.

For me, when religion and science meet and greet, my faith grows stronger.

I quickly add that growing up in the Bible Belt in the South, I have always found otherworldly, supernaturalistic, literal, anti-scientific religious faith, whether too often mainstream or fundamentalist, to be an insult to the sacred gift of human reason. And
an insult to our deepest religious impulses of awe and wonder – these impulses that inspire both so many scientists and so many religious people around the world.

Having for myself at an early age rejected any idea of God because of the old, gray-bearded man image, I now see things differently, largely because of insights from modern science: quantum physics, biology, cosmology, and astrophysics. God, or language about God, for me is a sometimes helpful symbol for and points to the mysterious, beautiful Creativity of the cosmos. This Creative Process is something mysterious but also trustworthy.

Where to begin the conversation about Science and Religion?

**EPISTEMOLOGY – How do we know what we know?**

The writer Joan Didion says, “We tell stories in order to live.” This is a favorite of mine by William Muehl of Yale Divinity School:

Once upon a time, early in the ... [19th] century, in the days when the great fleets of sailing ships went out of New Bedford to scour the oceans of the world for whale oil, the most famous skipper of them all was Eleazar Hull. Captain Hull took his vessel into more remote seas, brought home greater quantities of oil, and lost fewer crewmen in the process than any other master of his time. And all this was the more remarkable, because he had no formal navigational training of any kind. When asked how he guided his ship infallibly over the desert of waters, he would reply, "Well, I go up on deck, listen to the wind in the riggin', get the drift of the sea, and take a long look at the stars. Then I set my course."

One day, however, the march of time caught up with this ancient mariner. The insurance company whose agents covered the vessels of Captain Hull's employers declared that they would no longer write a policy for any ship whose master did not meet certain formal standards of education in the science of navigation. Captain Hull's superiors could understand this new rule. But they were at a loss to know how to approach the proud man whose life had been spent on the bridge and tell him that he must either go back to school or retire. After some consultation, they decided to meet the problem head on. Three of the company's top executives waited on Captain Hull and put their dilemma as tactfully as possible.

To their amazement, the old fellow responded enthusiastically. He had, it appeared, always wanted to know something about "science," and he was entirely willing to spend several months studying it. So the arrangements were made. Eleazar Hull went to school, studied hard, and
graduated near the top of his class. Then he returned to his ship, set out to sea, and was gone for two years.

When the skipper's friends heard that he was putting into port again, they met him in an informal delegation at the docks. They inquired how it felt to navigate by the book, after so many years of doing it the other way.

"It was wonderful," Captain Hull responded. "Whenever I wanted to know my position, I'd go to my cabin, get out all the charts, work through the proper equations, and set a course with mathematical precision. Then I'd go up on deck, get the drift of the sea, listen to the wind in the riggin' and take a long look at the stars. And correct my computations for error."

How do we know what we know? We learn from experience, we test ideas, we experiment, we use intuition, and we also apply any knowledge or book-learning as we see fit. We take what is useful, and we arrive at some understandings about what to do. Currently, philosophy of science is telling us that this is how we learn and how knowledge and science advance: both inductively and deductively... rationally and empirically, the same way we approach ethics and spiritual practice.

A note in last week's newspaper reported a study of four-year-olds that concluded that this scientific method is exactly what four-year-olds are up to and capable of in their learning. (*NY Times*, D3, October 2, 2012).

One of the most important lessons is that there is no such thing as an entirely objective, independent observer: the Observer Effect ... a good life lesson as well.

Like Eleazar Hull, we are participants in the discovery of knowledge, and we need to recognize that we bring certain experiences, assumptions, and subjectivity, as well as attempts at objectivity.

Science is embracing a bit of humility – something religious seekers have known for some time. Yet, we proceed as best we can, pragmatically, experimentally. "The more experiments the better," says Emerson.

We are involved, engaged participants in trying to know a world that cannot be totally objectified – out there. There is mystery, and we cannot know it all.

**ONTOLOGY – What is everything (the nature of “being”)?**

Another story, in fact two, which come from the realm of high-energy particle physics...

Once upon a time, we had a sense that everything was made up of atoms, and Isaac Newton in fact thought of them as tiny, tiny hard indestructible billiard-like balls.
But then we had new theories about electrons and protons. Now we have newer theories about even more basic building blocks: things – energy events of wave/particles – probabilities called fermions, such as quarks and leptons. Science asks us to think about mass and energy as interconnected.

And something very strange: most of what we think of as solid is empty space.

This pulpit – the wooden backs of the pews in front of you – the cushions you sit on, they are holy – sacred – but also holey – full of holes. The head of the person in front of you – yes that too – is mostly empty space – vibrating energies – holy and full of holes. That's the theory. These energies glump together – the right words are a little hard to come by – into atoms of elements, which form compounds, which form larger and more complex, creative stabilities.

We end up with a brain, a miraculous body chemistry, and all kinds of amazing attributes – the ability to enjoy the smell of roses, or tender caresses and kisses and hugs, or a sunset, or the taste of pepperoni pizza, or chocolate, or freshly baked bread, or the song we sing to ourselves when most happy, or the song we sing to ourselves when we are most sad.

It's very strange: All of it is mostly empty space. If every one of the atoms that make up all the elements in all the bodies of every one of us on earth were shoved together in one place – pack them together, then the sum total would be about the size of a large grain of rice.

Amidst all this space, are energies and complexities, and when I am aware of that reality, I am astounded by the whatever-it-is that is so Creative... and continually at work.

Science and religion both embrace the practice of mindfulness and the reality of Creative process.

And the latest thing is the Higgs boson, which, does seem to demonstrate that something can arise out of nothing. That's a high-order mystery, yet apparently the case.

The other story from high-energy physics is about how particles sometimes act – zipping in and out of existence. Or as some of the scientists describe it, they dance!

Quarks and other fermions dance all their lives, sometimes elegantly, sometimes wildly. Why don't we?

We have Eleazar Hull teaching us how to understand things through knowledge and experimentation, which sounds like Wisdom. We are involved in a Creative process that includes wonder, humility and mystery, as well as calculation.
We have dancing quarks that somehow meld together in greater and greater potentials for beauty and harmony, and that is what reality is, with empty spaces and energies... at least a theory, an approximation, a mysterious Creative process.

What else?

**COSMOLOGY**

Another story from science. 13.75 billion years ago (plus or minus 100 million years), you know this creation story I hope, there was an enormous fireball explosion — the Big Bang. The universe, as we know it, was off and cooking. Cosmologists, those who in science study the origin of the cosmos and try to explain how the laws of the universe work, talk of the Big Bang and the beginning of time. They talk about all kinds of speculative things like hyperspace, super-strings, 10 or twenty or more dimensions, and the curvature of space. Many are working on Grand Unified Theories to explain some of the basics. Like gravity.

It's a mystery, still. But the larger story of cosmology, the mechanics of the creation of the universe – not the why but the process – as a theory is holding up pretty well. From the fireball came the creation of hydrogen, helium, then all the other elements, the spiral nebulae, and the galaxies with all the stars. Then surrounding at least one star are planets, and on at least one planet, of one star, of one galaxy, of billions of stars, life arose – to love, to wonder, to sing.

Do you remember the story? We are ashes from stars, the carbon in us. You have breathed an oxygen atom that Jesus breathed. The elements of your body circulate in and out of your cells, and we are literally star-stuff – but not a single atom of my childhood is the same as today. But, I remain – a me – who remembers gazing at those stars, lying on my back on a warm summer's eve, and smelling the fragrant grass. Something continues although the dancing quarks cycle in and out in their own mysterious rhythm.

This story of cosmic evolution to me is one of sensational beauty. We are a part of and a product of this Creative force, and we are partners with it. We are part of an original blessing, not steeped in original sin. We are agents of Beauty, Grace, and New Life.

We are partners.

The cosmic story of creation, emphasizes our connectedness and the interdependence that exists not only among creatures, but also with Earth itself. We are connected – star-stuff.

Out of the stars...
The image of the whole earth is part of the cosmic story. An Arab astronaut remarked, “The first day or so we all pointed to our countries. The third or fourth day we were pointing to our continents. By the fifth day, we were aware of only one Earth... We are all Earth's children, and we should treat her as our Mother.”

Hopefully, despite how slowly it comes, this new vision and that of being part of a cosmic story will replace the Biblical injunctions to "subdue" the earth.

What does it all add up to? (That's metaphysics – the ultimate nature of reality and experience.)

**METAPHYSICS OF CREATIVE PROCESS**

(1) Eleazar Hull's learnings,
(2) Dancing quarks whose paths we can trace but whose futures are unknown,
(3) A story of cosmic creation that has yielded a medium-sized planet of a medium-sized star that has on it a singing, wondering, loving partner who can choose, imagine and create –

What does it all mean?

- Something is going on here....
- A Creativity... as well as evolutionary dead-ends.
- Orderliness and systems... as well as disorder and chance and violence.
- Relations, connections... interdependence, amidst discontinuities.
- Delight and wonder... as well as pain.

A very mysterious creation with a Creativity that supports me and you – supports Life. It will cut me down eventually if I do not cooperate with its ways, if I focus only on myself, if I think I am the reason all else exists, or if I act in ways harmful to others and to the environment.

A very mysterious creation with a Creativity that supports me and you – that will yield joy, laughter, heartache, but none that I cannot bear if I catch the wind in the riggin' and take a long look at the stars....

It's a very mysterious Creativity that my heart and mind tell me that I can trust.

(Metaphysics is about the basic things, the unifying themes, that we affirm.)

Another short story: Robert Coles quotes a young doctor in a hospital:

I was standing in the corridor outside a patient's room. I knew she would be dead soon. The blind was down. It was so damn dark. I looked at my watch. It was four-fifteen, a mid-January four-fifteen. Suddenly I saw a line of light – the sun peeking in from the side of the window,
sneaking along the floor, climbing up the side of the bed, falling into a patient's hand. I stood there gazing: I was in a dream. Then I heard the patient move a little. I looked at her. She was looking at the light on her hand. She was moving her hand into the light. (*The Call of Stories: Teaching and the Moral Imagination*)

Life's way is change; out of nothing, to something, from nowhere to somewhere, connected as star-stuff with everything else, and it is so beautiful. Garrison Keillor says, "Forgive us if we do not love it enough."

**FAITH – THEOLOGY**

Along with beauty come other mysteries of change, Life's way, God's way. The pain – all kinds of pain – maybe a nagging toothache, but not just the toothache, but the ache of Kaposi sarcoma, or of hunger, or the ache of love once tender turned bitter, of betrayal, of self-punishment, of confusion, of so many things.

And what do you say to that? In the face of all of that?

Can you reach out to see the light on your hand... or the light of the stars and feel a mysterious blessing, this creation? There are wonders.

Science meets religion these days, and for me they greet with praise for and with humility toward the mysterious Creative Process that surrounds us. The Spirit of Life and Love and Beauty and Justice and New Possibilities – we bring many names to that which is so trustworthy.

By whatever name, however approached, tarnished old metaphors or new images – I believe in this Creative Process as trustworthy if we choose to serve its ways... if we wait upon it, and take those long looks at the stars and be glad.

Science and religion meet and greet, and my faith strengthens. Cosmic partners with the wind, the sea, the light, with each other....

With the poet, and scientist we may ask,

> Wayfarer from afar,
> why are you here? what brings you here? why here?...

And in our faith, we may answer:

> “Give ... love to the world.... Cosmic Mariners – Destination Unknown.”