

Science and Religion

August 13, 2023¹

A Sermon by the Rev. Angela Herrera

First Unitarian Church

Behind me, we have this amazing mural. A centerpiece of our sanctuary. It was created in 1965 by the artist Alexander Girard and his sons, who made it out of pieces of wood they found mostly *as is*.

Girard and his sons collected the wood from barns, fences, doors, and roofs of abandoned buildings in the Jemez Mountains. All the colors are what they found on the wood they collected – house paint, creosote, stain, and natural weathered wood. They didn't add any color.

They brought it back to Albuquerque, and church members helped cut the wood into squares. Have you ever tried to guess how many wood tiles there are in the mural? There are five thousand. When we built this sanctuary, we had them moved one by one from the old sanctuary, what is now our social hall.

From found pieces, and with inspiration from church members and from his own imagination, Girard crafted a mural representing the world's religions. The symbols you see behind me represent Unitarian Universalism, Confucianism, Judaism, Islam, Shinto, Christianity, Astro-worship, Zoroastrianism, ancient Egyptian tradition, Hinduism, and Buddhism. And... Girard added a heart to represent the spirit and love that are present in all of the great religions and that unite people across difference.

Of course, the mural does not represent *every* religious tradition in the world- as I said at the beginning of summer, there may be as many as ten thousand different religions in the world, and even defining a religion is tricky anyway.

So, it would have been hard for Girard to identify every tradition, even if he were making a mural big enough to include them all. Instead, by bringing together the diverse traditions it does have, our mural means to represent the greater diversity.

Nevertheless, as the years passed, our congregation grew in its awareness of the breadth of traditions, and pretty soon it felt like a few important ones had been glaringly omitted. For example, earth based traditions, indigenous to every continent, are missing, including the original tradition belonging to this land right here. That's a big omission.

So we seek to complement the mural with new symbols, and that is one of the reasons this sanctuary was designed with the nichos you see to your right. For a few years, it held symbolic objects from Africa. Right now, we have a display of science related objects, because symbols of science are also absent from the mural. [Someday it will have another installation, but it's a lot harder than you think to switch it out, so we don't do it very often.]

¹ This sermon is adapted from one originally preached in 2018, when our science display was installed in the nichos.

Now, I would not call science a religion. But science is named among the six sources from which Unitarian Universalism draws. You can find them in your hymnal right before hymn #1 if you want to look. We read them aloud back in June. The final one reads, “Humanist teachings which counsel us to **heed the guidance of reason and the results of science**, and warn us against idolatries of the mind and spirit.”

There it is—scientific discovery does not just coexist with Unitarian Universalism. It is named among the *sources* that shape our tradition. Our tradition, which once upon a time grew out of the Christian tradition.

In the history of Christianity and science, it used to be the other way around. Science was shaped by religion.

In the time before science came to be seen as separate from religion, the questions people asked —about how nature works and why the ocean is blue and how so many kinds of animals came to be—flowed out of a Christian world view. Humans, who were created by God, were studying the rest of creation. They studied plant cycles and weather patterns, cells and planets.

Trouble began when theories from these observations contradicted treasured religious ideologies— as when Copernicus’s theory that the earth revolves around the sun conflicted with the Christian teaching that everything revolves around the earth, and specifically around humans. Then we began to see clashes of what, with hindsight, we call religion and science. They didn’t start out as distinct, but we came to see them that way.

One of the most infamous clashes was that one between the Catholic Church and Copernicus in the 1500’s.

Another occurred between the Church and Galileo less than a century later. After violating an injunction issued by church authorities “not to hold, teach, or defend in any way whatsoever that the earth moves,” Galileo was forced to recant his discoveries. He spent eight years in house arrest. That turned out to be the rest of his life; he died at age 77. In recanting, he had to state that his discoveries were "abjured, cursed and detested." Abjured means shunned. This caused him a lot of grief. But it saved him from being burned at the stake.

Nowadays, obviously, there are many Christian and other churches that do not pick fights with science. Over 350 years after the Galileo incident, the Catholic Church also acknowledged that they had been wrong. That was in 1992.

But in the US, in the late 1800’s, some Christians believed the influence of reason and science had gone too far. They saw liberal ministers—like Unitarians and Universalists—taking a critical eye to the bible, and allowing scientific discovery to change some tenets that had previously been held dear, such as the teaching that there is literally a place called hell, and that most of the world’s population will go there. We don’t teach that.

In response to religious liberalism, which had been influenced by science as well as anthropology and historical criticism, a counter movement formed: Christian fundamentalism.

In the 20th century, fundamentalists organized and they found their public voice. They argued for school prayer, and for teaching creationism alongside evolution. They viewed much of science with disdain, and to this day we see that battle playing out.

Some have tried to reconcile science and religion by suggesting that they belong to separate, but compatible spheres. Stephen Jay Gould was a professor of zoology, biology, and geology at Harvard. In the book, *Rocks of Ages*, Gould argues that science and religion belong to Non-Overlapping Magisteria.ⁱ That's what he calls it. Non-Overlapping Magisteria.

Magisteria sounds like "your majesty," which makes me think of separate kingdoms. Gould defines a magisterium as a domain where one form of teaching has the right tools for the job. Magisteria comes from the latin word "magister" which means teacher. Because it's Latin, the plural of magisterium is magisteria.

Non-Overlapping Magisteria. Gould calls it NOMA for short. Thank goodness.

He says science "tries to document the factual character of the natural world, and develop theories that coordinate and explain these facts." Religion on the other hand, does something different. Religion, he says, "operates in the equally important, but utterly different, realm of human purposes, meanings, and values—subjects that the factual domain of science might illuminate, but can never resolve." So science asks, "How does it work?" And religion asks, "What does it mean?"

The teachings in one domain may inspire conversation and spur thinking in the other, but Gould says, science and religion respond to fundamentally different questions.

That's tidy. So crisp and clear. It resonates with me. I like it. But of course, that's because I'm a religious liberal! And I am comfortable with science doing the explaining for the natural world, and I'm comfortable adjusting my religious views accordingly. That is the perspective of Unitarian Universalism.

It's also true that many scientists are religious, and many church-goers are scientists.

Those who embrace both know that it takes courage sometimes. Science can be spiritually challenging. In May of 2018, for example, a study was published exploring what happens in the brain during religious experiences.ⁱⁱ

This is a really interesting study, because while past studies have looked at what happens to Buddhist monks or Carmelite nuns or other specialized religious practitioners, this study was not limited to one religious tradition, or to religious experts. In fact, you might describe the participants in the study as spiritual but not religious.

The participants were twenty-seven young adults who had had the experience of oneness with a higher power or with all things—however they defined it. The

researchers then created visualizations tailored to the past spiritual experience of each subject, to try and recreate that experience.

So if the participant had had a spiritual experience by the ocean or on a mountain, the guided imagery evoked that. If the experience had occurred during meditation, or during intense physical exercise, the visualization was tailored to that.

Then, while the participants were guided through the visualization, the researchers did functional MRI's on them to see what was happening in their brains.

The researchers discovered that whatever the specifics, when participants were having a spiritual experience, they showed decreased activity in a part of the brain called the Inferior Parietal Lobule. The same thing had been observed in previous studies. And... at least one study has shown that researchers can induce a feeling of oneness with God or all things by artificially manipulating that part of the brain to quiet it.

Further research has shown that spiritual experiences of oneness make people more resilient in life; able to deal with stress or loss or other issues better than those who have not experienced it. The researchers hoped their study would help improve mental health care, by showing what areas of the brain needed intervention to help improve coping and resilience.

So... hold on now.... is religious experience merely a function of the brain? Or is that quieting of the Inferior Parietal Lobule our brains' way of getting out of the way?

Do our brains respond to an ultimate reality that is larger than ourselves? Is a sense of spirituality less real if we can see corresponding brain patterns?

Science itself is awe-inspiring. It is as the twentieth century preacher Ralph Sockman said: "The bigger the island of knowledge, the longer the shoreline of wonder."

And... in a sense both scientific and religious, we *are* one with all things. When we experience oneness, we also experience a deep peace that we can find again in a difficult moment. Knowing that, when we are struck with that feeling of peace, our brains also are struck with a moment of peace and quiet does not make it any less awe-inspiring. Or any less true. And isn't it amazing that our brains are wired to ask such things? What are we?

Knowing that the hydrogen in our bodies, which is about 90% of the atoms of which we are made, could have been produced in the big bang,

And knowing that most of the rest of our atoms were produced in old red-giant stars, is amazing.

We marvel. And that awe, and science, are both part of our religion.

[Close with reading #530 in hymnal by Robert Westonⁱⁱⁱ.]

ⁱ Ballantine Books, 2002.

ⁱⁱ Miller, Lisa, et al. "Neural Correlates of Personalized Spiritual Experiences." *Cerebral Cortex*, 2018, pp. 1–8., doi:10.1093/cercor/bhy102.

ⁱⁱⁱ Reading #530 in Singing the Living Tradition (gray hymnal).