

***“There are more things in heaven and earth ...
Than are dreamt of in [our] philosophy”:
Traversing the Breach between Science and Religion¹***
Marcus H. Martins, Ph.D.

Since my childhood I’ve been fascinated by science and technology. Instead of playing marbles and flying kites my amusements would include chemistry sets, electronic kits, and voracious reading of any encyclopedias I could get my hands on. Thanks to my father’s admission to college after I had been born, I grew up surrounded by books on various subjects.

But I also grew up immersed in the religiosity of my mother and grandmothers, which included a blend of Catholicism and Afro-Brazilian traditions. That filled me with a sense of deep and abiding faith in God and reverence towards religious beliefs and practices.

Decades later I became a sociologist interested in multiple disciplines. And, my mind, belief in religion and trust in science have coexisted for over six decades.

The breach between religion and science has endured for centuries. At times, that breach appeared like a rift, and during the darkest years of the Middle Ages, it grew to become a Grand Canyon, with dire and even fatal consequences for enlightened minds like Galileo Galilei and Giordano Bruno. So entrenched were the positions and so fatal were the consequences, that in essence scientists and clergy condemned and in fact “excommunicated” each other. It is not my purpose in this lecture to settle this centuries-old debate, nor to offer definitive evidence. But as an aging retired social scientist, I want to go on record with my personal thoughts on the matter, based on two long-held interests: First, an interest in science, and afterwards, my love for the restored gospel of Jesus Christ, as I have studied it for the last half a century as a member of the Church of Jesus Christ of Latter-day Saints.

So, my purpose is not to convince anyone, but merely offer the deposition of a scholar and disciple, who spent close to half a century pondering on matters of faith and reason. I’m encouraged by the words from British Theologian Austin Farrer, who said:

“Though argument does not create conviction, the lack of it destroys belief. What seems to be proved may not [necessarily] be embraced; but what no one shows the ability to defend is quickly abandoned. Rational argument does not create belief, but it maintains a climate in which belief may flourish.”²

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² Austin Farrer (British Theologian - 1904-1968), “Grete Clerk” in Jocelyn Gibb’s *Light on C.S. Lewis* (New York: Harcourt and Brace, 1965), 26 - Quoted by Elder Neal A. Maxwell in the 1991 address “Discipleship and Scholarship” - *BYU Studies* 32/3 (1992):5

As I explained in a major lecture in 2020, I believe in an intelligent religion³. A religion that seeks and upholds truths, supporting light, progress.

The basic premise is that there should be no conflict within truths—whether religious or scientific—if one understands that the tools employed in each one, although different in function, are remarkably similar in essence.

Function – Science discovers the natural laws and processes that make the world exist. Science is exercised in the field, in academic halls and locations set up to serve as laboratories. Through scientific knowledge we obtain better understanding of the organs and functions of the human body—thus promoting better health. Scientific knowledge also brings us increasingly better understanding of the laws of nature—mechanics, dynamics, electro-magnetism, nuclear forces, gravity—which employed by engineers, brings us technology in many cases for a more comfortable and practical daily life.

Religion is exercised in the mind, in the soul of an individual, and in halls and locations chosen and dedicated to serve as sacred sanctuaries. Religion unveils the natural laws and processes of what would be another dimension, which we may call a spirit world.

Both science and religion produce results that are employed in the world at large.

Essence – Both science and religion rely on faith in the notion that “something is out there” and confidence in observation, experimentation, thoughtful analysis, and intelligent deduction.

Before I continue with my remarks, I must recognize that there is a “dark side” to this subject. Indeed, throughout history exaggerations in religion brought about persecutions and death, and exaggerations in science brought about destruction and carnage, when not utter genocide. In my mind, those were aberrations, and not the essence of either religion or science. I also explained in another lecture that in our day religion has been hijacked by extremists attempting to impose a thin and false veneer of religiosity to justify their abhorrent racial prejudices and political violence⁴.

Now, returning to my main discussion, how did the scientific and the religious fields diverge?

Religious scholars settled on a firm belief in a supposed inerrancy of the Bible, mixed with misinterpretations and old superstitions, while renaissance scientists rising out of primitive notions about the earth and the solar system employed an intellectual arrogance by quickly rejecting the possibility of an intangible reality while at the same time discovering that there were almost endless components of earthly life in the microscopic world.

As the centuries passed, scholars in both science and religion lacked self-reflection and thoughtful dialogue, which widened the breach between the two fields. A form of tribalism has

³ Marcus H. Martins, [The Third Century of an Intelligent Religion](https://drmhmartins.com/Papers/Martins-Intelligent-Religion-eng.html) - The 2020 David O. McKay Lecture at Brigham Young University-Hawaii – 11 February 2020 - <https://drmhmartins.com/Papers/Martins-Intelligent-Religion-eng.html>

⁴ Martins, “[Social Climate Change](#)”: [Religion and the Rising Tide of Extremism in Society](#) - Presented at the Oxford Symposium on Religious Studies, in Oxford, U.K., on 02 August 2018.

kept both sides separated for centuries. Secularization cemented a once muddy and still malleable ground.

As I mentioned earlier, while my purpose is not to convince anyone nor to offer definitive evidence, I still want to claim the privilege of sharing my personal experience in reconciling matters of faith and reason.

For the past half a century, I found that the religious ideas brought about by the organizer of the Church of Jesus Christ of Latter-day Saints, Joseph Smith, his associates, and successors, offer a novel way to traverse the breach between religion and science.

The good news is that according to the tenets of the Church of Jesus Christ of Latter-day Saints, a new age of “spirituality” will eventually break the “cement of secularization”, clean the debris, and build a bridge between the two fields. I believe so. But that would require humility from science and additional divine revelations from religion.

In the meantime, how have I been traversing the breach between religion and science in my own mind and professional activities? I did it by asking interesting questions about the similarities between the assumptions from both fields. Doing so, I recognized that since the 19th century the two fields seem to be gradually converging towards a “unity of understanding”.

I found that it is possible to reconcile religion and science because the two fields share a fundamental characteristic: both rely on belief or faith in “something” invisible.

Evolutionary theory postulates the existence of universal processes that follow strict and highly complex algorithms. Science allows for a belief in supreme intelligence and power—even if only calling it Nature or Evolution, which sounds like some kind of abstract entity with intrinsic analytical capabilities.

Lest anyone dismiss too quickly the idea of science being grounded on a type of faith, let’s remember that at the beginning of the 21st century the advent and growing acceptance of string theory brought the notion of parallel dimensions of reality. The quantum realm, far beneath the subatomic, defies all norms of physics of the macro realm in which we live and which we perceive with our physical senses. According to researchers, a string, which is postulated to have the format of the filament of the old incandescent light bulbs, is as small compared to the nucleus of an atom, as an atom is to the entire solar system. Under this view, matter is mostly empty space. Scientists are studying what has been called “dark matter”, which although invisible to our astronomic instruments, would still account for a staggering 85 percent of the mass of the universe. Adding a still not quite understood form of energy called “dark energy”, scientists postulated that combined, they account for 95 percent of the total mass–energy content of the universe.

Just like in outer space, will we someday discover that the inner space within the human body is not entirely empty?

Through his work on fractal geometry, mathematician Benoit Mandelbrot (1924–2010) showed that nature and indeed our entire planet could contain seemingly infinite dimensions of space entrenched in our familiar three-dimensional reality.



Mandelbrot's Fractals

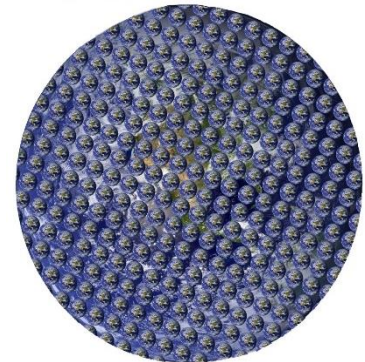
This is not an entirely new concept. Since ancient times mathematicians have known and worked with “real numbers” to represent continuous quantities. I remember learning in secondary school that there is an infinite number of decimal quantities between two numbers, such as 0 and 1 or between 1 and 2.

One of latter-day saint scriptures contain an account of a vision given to the biblical patriarch Abraham, in which he used language that suggested a fractal: “*And [the Lord] put his hand upon mine eyes, and I saw those things which his hands had made, which were many; and they multiplied before*

mine eyes, and I could not see the end thereof.”⁵

Indeed, the parables taught by Jesus Christ during his mortal ministry, and the instruction Latter-day Saints receive in the presentation of the temple endowment in the current era, may follow a “fractal pattern”, through which the more one “looks into it”, the more “layers of meaning” one discovers, without a visible end—infinite, to mortal understanding.

Might this describe the invisible realm in which angels and spirits abide? Hidden from our gaze, such fractal environment might very well agree with Joseph Smith’s statement about post-mortal spirits: “*Enveloped in flaming fire, they are not far from us, and know and understand our thoughts, feelings, and motions, and are often pained therewith. Flesh and blood cannot go there; but flesh and bones quickened by the Spirit of God, can.*”⁶



Would the Earth have “fractal dimensions”?

Lest anyone ascribe this to some kind of “celestial animation”, according to Joseph Smith, “*There is no such thing as immaterial matter. All spirit is matter, but it is more fine or pure, and can only be discerned by purer eyes; We cannot see it; but when our bodies are purified we shall see that it is all matter.*”⁷

Brigham Young, the immediate successor to Joseph Smith, declared: “*Where is the spirit world? It is right here. Do the good and evil spirits go together? Yes, they do. Do they both inhabit one kingdom? Yes, they do. Do they go to the sun? No. Do they go beyond the boundaries of this organized earth? No, they do not.*”⁸

⁵ Pearl of Great Price - Abraham 3:12

⁶ Teachings of the Prophet Joseph Smith, pp.325-326

⁷ Doctrine and Covenants 131:7-8

⁸ Journal of Discourses, 3:369; 7:174, 239

Ever since we were little children, when someone passed away we heard that the person had gone “to heaven”, indicating upwards. According to what we read here, this “heaven” is not exclusively “up” but is in all directions around us. According to string theory, what we call “heaven” would be parallel dimensions “embedded” within this physical environment in which we live. Scholars postulate that the universe we live in has 11 dimensions. The mortal human brain can perceive four of these dimensions—length, width, height, and time—and the other seven dimensions would be “embedded” or “encapsulated” within these four. This would agree with the concept of fractals.

I am not proving or providing evidence, but rather suggesting topics for future studies.

I spoke about a gradual convergence between key points of religion and scientific discoveries.

Allow me to suggest examples of possible topics for future research. Again, my purpose is not to settle this issue, but rather to point out what Shakespeare stated four centuries ago: “*There are more things in heaven and earth ... Than are dreamt of in your philosophy.*”⁹

Yes, I believe that the 15th century English bard was right: there are indeed more things ... and I expect that in the future, expanded religious understanding and deeper scientific information will converge in spectacular ways.

My own Latter-day Saint faith promises that. Again, quoting from the Latter-day Saints canon of scriptures:

*“Yea, verily I say unto you, in that day when the Lord shall come, he shall reveal all things—things which have passed, and hidden things which no man knew, things of the earth, by which it was made, and the purpose and the end thereof—Things most precious, things that are above, and things that are beneath, things that are in the earth, and upon the earth, and in heaven.”*¹⁰

“God shall give unto you knowledge by his Holy Spirit, yea, by the unspeakable gift of the Holy Ghost, that has not been revealed since the world was until now; Which our forefathers have awaited with anxious expectation to be revealed in the last times, which their minds were pointed to by the angels, as held in reserve for the fulness of their glory;

“A time to come in the which nothing shall be withheld, whether there be one God or many gods, they shall be manifest. All thrones and dominions, principalities and powers, shall be revealed and set forth upon all who have endured valiantly for the gospel of Jesus Christ.

“And also, if there be bounds set to the heavens or to the seas, or to the dry land, or to the sun, moon, or stars—All the times of their revolutions, all the appointed days, months,

⁹ William Shakespeare, *Hamlet*, Act 1, Scene 5

¹⁰ Doctrine and Covenants 101:32-34

and years, and all the days of their days, months, and years, and all their glories, laws, and set times, shall be revealed in the days of the dispensation of the fulness of times”¹¹

The mathematician Kurt Gödel postulated, among other insights, the following:

“4. There are other worlds and rational beings of a different and higher kind.

“5. The world in which we live is not the only one in which we shall live or have lived.

“13. There is a scientific (exact) philosophy and theology, which deals with concepts of the highest abstractness; and this is also most highly fruitful for science.

“14. Religions are, for the most part, bad—but religion is not.”¹²

So, instead of dismissing either confirmed scientific findings or insights coming from accurately translated sacred texts, we should develop the patience necessary to wait for future developments in both fields.

Here are a few additional questions for future inquiry:

At the quantum realm—inside subatomic particles—the laws of the visible macro-world—gravity, time—break down and present possibilities that go far beyond the imagination of science-fiction writers.

Would dark matter one day show invisible worlds peopled with civilizations aware of us but divinely prevented from interfering in our earthly affairs?

Would dark energy one day shown to be what Latter-day Saints call “the Light of Christ”¹³, and described as another manifestation of electromagnetic radiation that fills and keep the space-time continuum in order according to laws decreed eternities ago by higher intelligences enthroned in seemingly infinite power? Time will tell ...

What other life forms might exist in the divine universe—a dimension of space and time hidden still undetectable by our scientific instruments?

One early apostle of the Church of Jesus Christ of Latter-day Saints, Elder Orson Pratt, postulated:

“There are worlds, as it were, without number; kingdoms without number; personages without number; intellectual beings of all grades and orders without number; and all these have their laws, their governments, their kingdoms, their thrones, their

¹¹ Doctrine and Covenants 121:26-31

¹² Kurt Gödel (1906-1978) Ontological Proof - https://en.wikipedia.org/wiki/Gödel%27s_ontological_proof

¹³ Doctrine and Covenants 88:5-13, 36-47

principalities, their powers, all moving and acting in the sphere in which they are placed; and they all have their way of communication one with another ...”¹⁴

What would have been possible for exalted beings who possess pure intelligence, perfect attributes of character, and infinite power? Imagine what would be possible to perfect intelligent beings who can manipulate space, matter, and time at will, yet with the main and unchangeable goal of promoting perfect good?

Time and timelessness ... The effects of the absence of time in a physical environment would be beyond mortal comprehension, and even disrupt the order of cause and effect.

For example, in the Book of Mormon: Another Testament of Jesus Christ, we find language that seems to defy the limitations of time and causality:

Speaking over one century before the birth of Jesus Christ, one prophet, Abinadi, stated:

“And now if Christ had not come into the world, speaking of things to come as though they had already come, there could have been no redemption.”¹⁵

Another writer, almost four centuries before the birth of Christ, also suggested a mindset exempt from the effect of time:

“Wherefore, the prophets, and the priests, and the teachers, did labor diligently, exhorting with all long-suffering the people ... persuading them to look forward unto the Messiah, and believe in him to come as though he already was. And after this manner did they teach them.”¹⁶

In one among several scriptural passages, we find this concept of timelessness:

“My name is Jehovah, and I know the end from the beginning”¹⁷

What evolutionary steps really took place in the organization of this earth?

When it comes to creation of the earth and the creation and development of human beings, the Latter-day Saint scriptures also make it easier for the believers to reconcile religion and science—although partially and imperfectly.

Passages in those books suggest that the process of creation may very well have taken place over extremely long periods of time, and these passages do not even specify that such periods of time were immediately successive—but may have possibly had paused extending also extremely long periods of time:

¹⁴ Elder Orson Pratt, Journal of Discourses, Vol.3, p.103

¹⁵ Book of Mormon - Mosiah 16:6

¹⁶ Book of Mormon - Jarom 1:11

¹⁷ Pearl of Great Price - Abraham 2:8

“And the Gods watched those things which they had ordered until they obeyed. ...

“And the Gods prepared the waters that they might bring forth great whales, and every living creature ... which the waters were to bring forth abundantly after their kind; and every winged fowl after their kind. And the Gods saw that they would be obeyed, and that their plan was good ...

“And the Gods prepared the earth to bring forth the living creature after his kind, cattle and creeping things ... and the Gods saw they would obey”¹⁸

Latter-day Saints are familiar with another piece of information in their scriptures that refer to the relativity of time—just as predicted in Albert Einstein’s equations:

“And the Lord said unto me, by the Urim and Thummim, that Kolob was after the manner of the Lord, according to its times and seasons in the revolutions thereof; that one revolution was a day unto the Lord, after his manner of reckoning, it being one thousand years according to the time appointed unto that whereon thou standest. ...

“And thus there shall be the reckoning of the time of one planet above another, until thou come nigh unto Kolob, which Kolob is after the reckoning of the Lord’s time; which Kolob is set nigh unto the throne of God ...

“And it is given unto thee to know the set time of all the stars that are set to give light, until thou come near unto the throne of God.”¹⁹

“The Gods watched [observed] ...” while eons would have passed for mortals, for them it might have felt like a mere season, like when we watch a video permanently on fast-forward.

A few additional questions for future consideration:

Perhaps one of the most interesting intersections between religion and science might come from the use of AI-Artificial Intelligence. What would religious experience be like in the Age of AI? Can we envision the consequences of having “The Word from on high” preached ... from within a grouping of computer chips?

Thinking of the Bible, the Koran, the Book of Mormon, the Vedas ... all online. How would sermons created by a machine sound? Would they lead to new insights or to a confusing and meaningless smorgasbord of beliefs?

In another fundamental doctrinal point, many Christian religions preach a future resurrection of the human body. Latter-day Saints believe that such resurrection is literal:

“[The] revelation of God to Joseph Smith ... held out to man the hope of a tangible, future existence in a resurrected, immortal body of flesh and bones quickened by the

¹⁸ Pearl of Great Price - Abraham 4:18, 21, 24-25

¹⁹ Pearl of Great Price - Abraham 3:4, 9-10, 13

spirit and clothed with the glory of an immortal youth. The future life was to be a reality, not merely a land of phantoms ... His relations with his kindred and friends were to be of a nature to satisfy the longings of the human heart for society, for fellowship ...

“[A] real, tangible existence; an immortal youth that knows no pain or sickness or disease; the power to have knowledge and wisdom as the centuries, the millenniums and eternity roll by ... power to build and inhabit; to love and be loved; and add to that the associations of superior intelligences and the power of endless lives; the power and privilege to perpetuate his race under an eternal marriage covenant.

“[The] future happiness, exultation and glory of man stands revealed as being absolutely without limitations, and far greater and beyond in majesty anything within his power to conceive in his present state of development.”²⁰

Science has revealed that DNA is the “software of life”. A belief in a literal resurrection would then include the application of this software of life to incorruptible matter—matter not subject to degradation or entropy—resulting in a resurrected body, a body that would never age, nor suffer infirmities, nor death. Time will tell ...

A few more interesting questions for future inquiry about the convergence between religion and science:

I once commented²¹ that sacred scriptures describe heavenly manifestations sometimes including music performed by celestial beings.²² I wonder what personal impressions scholars in the fields of music, psychology, and neurology would have to offer about a connection between music and heavenly power.

Elder James E. Talmage, another apostle in the Latter-day Saint faith, also a scientist, wrote:

“Gravitation, sound, heat, light, and the still more mysterious and seemingly supernatural power of electricity, are but the common servants of the Holy Ghost in His operations.”²³

Could earthly sound waves, enhanced by the power of the Holy Ghost, resonate with the priesthood itself? Would it be possible for those sanctified vibrations to cause spiritual and physical effects on both body and spirit?

Multiple academic disciplines can help us learn details about all these symbolic elements and expressions used in the scriptures and other sacred texts and narratives.

Years ago, at another major lecture²⁴ I also raised the following questions:

²⁰ Elder Brigham H. Roberts, *A Comprehensive History of the Church*, 2:93-95

²¹ Martins - *The Third Century of an Intelligent Religion* - 11 February 2020 - <https://drmhmartins.com/Papers/Martins-Intelligent-Religion-eng.html>

²² Bible - Job 38:7; Revelation 5:9; 14:3; The Book of Mormon - 1 Nephi 1:8; Alma 36:22

²³ James E. Talmage, *Articles of Faith*, p.166

²⁴ Martins - “*To Be Learned is Good*”: *A Meditation on Priesthood and Time* - Remarks at BYU-Hawaii’s Honors Night – 30 May 2017 - <https://drmhmartins.com/Papers/Martins-Priesthood%20and%20Time-2017.pdf>

“We conceive “eternity” to be a perfect and glorified realm of consistency and light, while the current mortal environment is imperfect, fallen, mutable, ambiguous, and dark. Priesthood is a power emanating from that perfect, infinite, eternal realm, acting on imperfect, finite mortal matter. When power from a glorified being from eternity possessing the fullness of the priesthood visits the earth, what effect, if any, does it cause in the mortal environment?

“What effects might the priesthood cause on earthly matter? Or, more specific to my meditation, would the priesthood distort a hypothetical “time signature” of mortal compounds? Could it be that, when applied to mortal matter, the power of the priesthood imparts some of its eternal nature to that mortal matter, thus making it appear far “older”? “If so, that might account for measurements of geological time, and our current scientific instruments would be accurately measuring the age of fossils, but that measurement would reflect an age distorted by the ever-present power of the priesthood, and not the actual age, as measured by eternal beings.

“Could it be that in other instances the power of the priesthood might reverse the effects of time on mortal matter, restoring it to its pristine state—erasing the damage caused by human diseases and even reversing the process of death?

“Would that be a potential explanation of how the prophet-warrior Joshua extended the hours of the day to gain victory in a crucial battle (Bible - Joshua 10:12-14)? And how the Lord turned back the movement of a sundial during the ministry of the prophet Isaiah (Bible - Isaiah 38:5-8)?

“[Latter-day Saints] understand that the power of the priesthood emanates from a realm where perfection is the norm. Following this line of reasoning, once that power is applied to imperfect matter would it impart some measure of its inherent quality of perfection, and make something imperfect become a little more refined than its natural mortal state? If so, that might explain how the Savior restored the bodies of the blind, the maimed and the lame, to their proper fully functional state (3 Nephi 17:7-8), and even reversed the effects of death itself and brought a widow’s son, the daughter of Jairus, and Lazarus back to mortal life (Bible - Luke 7:11-15; 8:41-42, 49-56; John 11:38-44).

“Similarly, the power of the priesthood might cause other effects on mortal nature, overcoming the effects of gravity, inertia, and electromagnetism. Nephi seems to have been miraculously transported to a high mountain (Book of Mormon - 1 Nephi 11:1). Moroni stood for hours in the air above the floor of young Joseph Smith’s bedroom, lecturing the young Joseph by word and by “mental images,” in such a way that the young man appeared to not notice the passage of time. Moroni also seemed to manipulate the light emanating from his body in a way that would require a magnetic field of stellar intensity, and at the end of his visits passed through Joseph’s roof on his way back to the realm he had come from (Pearl of Great Price - Joseph Smith-History 1:30, 42-43).

A renowned scientist, Dr. Francis Collins, recently stated:

“There really is such a thing as truth. You couldn’t be a scientist if you didn’t believe that there is an objective truth to be discovered, and our goal as good detectives is to figure out what it is. Sometimes we get false clues, and we make mistakes, and we go down a blind alley, but ultimately, we know there is an answer, and if we do everything right and other people help us along, we’re gonna get that answer. And then we add to that constitution of knowledge ...”²⁵

Indeed, as I mentioned in my superficial meditation back in 2017, “to be learned is good” when we employ our intellect to see possible connections between the ever-increasing body of scientific knowledge and refined insights from the restored gospel of Jesus Christ.

And as I envision truths in religion and science converging ever so closely into one great whole, I come to agree with William Shakespeare’s words from four centuries ago: *“There are more things in heaven and earth ... Than are dreamt of in [our] philosophy.”*

Marcus H. Martins is a sociologist, professor emeritus and former dean of religious education at Brigham Young University-Hawaii. He wrote the book “Setting the Record Straight: Blacks and the Mormon Priesthood”, and the manuscript “The Priesthood: Earthly Symbols and Heavenly Realities”. He has spoken at conferences and events in the United States (where he has lived since 1990), Brazil, China, England, Hong Kong, Japan, Malaysia, Marshall Islands, Portugal, Qatar, and Singapore. Brother Martins joined the Church of Jesus Christ of Latter-day Saints in 1972 and became the first Latter-day Saint with Black African ancestry to serve a full-time mission after the 1978 Revelation. He served twice as bishop, seven times as stake high councilor, three times as temple worker, translator of the Book of Mormon, and president of the Brazil Sao Paulo North Mission with his wife, Mirian Abelin Barbosa. The couple has four children and eight grandchildren.

²⁵ Dr. Francis Collins, former director of the NIH-National Institutes of Health, In “*Tell Me More with Kelly Corrigan*”, television program, aired on April 15, 2024