

*Benigno Beltran, SVD\**

## THE DIVINE WORD AND THE CONVERGENT UNIVERSE

*In this contribution, part of a wider reflection, the author engages in the discussion of science and faith and the controversies around the possibility of a discourse on God and creation by scientists in their field, and of a faithful and theological understanding of scientific findings. The human person is seen as a relational being belonging to the stuff of cosmic evolution as well as capable of asking further. Different religions and theologies offer their perspectives on the place of the human person within the cosmos.*

### ***I. The Evolving Cosmos***

*“There is something afoot in the universe, something that looks like gestation and birth.”*

(Pierre Teilhard de Chardin)

The Society of the Divine Word is a religious missionary congregation that works among the poor, the neglected and the disadvantaged, to help bring the fullness of life to others and make the goodness and kindness of God visible.<sup>1</sup> Divine Word Missionaries, first and foremost, preach the Gospel and share the Word of God to bring comfort to those in need, peace to those in pain, and through their life and service, help build vibrant faith-communities. They seek to understand and express their experience and knowledge of the Word through prayer and worship, and to allow the social dimension of this experience and knowledge to become a principle of life and action for

---

\* Benigno Beltran, SVD, was born in Kolambugan, Philippines, in 1946. He studied engineering, philosophy and theology in Manila and Rome. Over 30 years, he worked with slum dwellers on the garbage dump “Smokey Mountain” in Tondo while at the same time teaching theology in the SVD Faculty and elsewhere. He has done research into theories of learning appropriate for digital natives and in building personalized and adaptive learning systems using videogames and AI to enhance learning among the poor and marginalized. Chief Learning Strategist at the Sandiwaan Center for Learning.

<sup>1</sup> Prologue, *The Constitutions of the Society of the Divine Word*, Rome 2001. The “Word” in Greek is *Logos*, and in Latin *Verbum*. Society of the Divine Word is *Societas Verbi Divini*, SVD.

their religious communities. Divine Word Missionaries have chosen prophetic dialogue as the way of doing mission that is defined by joy, mercy and engagement.<sup>2</sup> Prophetic dialogue means to speak boldly on principle, but to also share ideas in genuine humility. It is the passing over into the world of another for the sake of mutual understanding in order to arrive at a new way of understanding the world without betraying one's commitment and fundamental option.<sup>3</sup> Among the partners chosen for this dialogue would be those seeking faith, the poor, those from other cultures, and people of different religious persuasions.

Pope Francis' vision of the church is that of a missionary church that reaches out to the poor, the young, the elderly and even to non-believers. In *Evangelii gaudium* 242, he declared: "Faith is not fearful of reason; on the contrary, it seeks and trusts reason, since 'the light of reason and the light of faith both come from God' and cannot contradict each other. Evangelization is attentive to scientific advances and wishes to shed on them the light of faith and the natural law so that they will remain respectful of the centrality and supreme value of the human person at every stage of life. All of society can be enriched thanks to this dialogue, which opens up new horizons for thought and expands the possibilities of reason." Meanwhile, atheist Richard Dawkins has written that the universe exhibits "precisely the properties we should expect if there is, at bottom, no design, no purpose, no evil, and no good, nothing but blind, pitiless indifference." While many are seeking faith in the world today, there are also those who deny faith in a transcendent reality. Many among these are militantly against organized religions.<sup>4</sup> Some are even calling for their extirpation.

We inhabit the same planet. Is there any way at all that believers and atheists can embrace a common cause?

---

<sup>2</sup> See Stephen Bevans/Roger Schroeder, *Prophetic Dialogue: Reflections on Christian Mission Today*, Maryknoll, NY: Orbis Books 2011.

<sup>3</sup> See *Prophetic Dialogue: Biblical Stories, Images and Insights*, Rome: SVD Publications Generalate 2007. Prophetic Dialogue takes the characteristic dimensions of mission animation; biblical apostolate; justice, peace and integrity of creation and social communications. These are described in *SVD Characteristic Dimensions*, Rome: SVD Publications Generalate 2002.

<sup>4</sup> See, however, Elaine Howard Ecklund, *Science vs. Religion: What Scientists Really Think*, Oxford: Oxford University Press 2010. Ecklund surveyed nearly 1,700 scientists and interviewed 275 of them. Nearly 50 percent of them are religious. Many others are what she calls "spiritual entrepreneurs," seeking creative ways to work with the tensions between science and faith outside the constraints of traditional religion. Only a small minority are actively hostile to religion.

The Society of the Divine Word was founded in Steyl, Holland, by St. Arnold Janssen in 1875. St. Arnold was a mathematics teacher. He won awards for his scientific experiments, and so there was a long tradition of scientific research among the members of the congregation. He had a deep and abiding love for the Trinity. In his letters to the missionaries, he always admonished them thus: “Over and above, however, we should give first place to the specific worship of the Blessed Trinity and of the individual Persons.” He also wrote to them saying, “The Throne of the Most Holy Trinity is threefold: heavenly of the Father; Eucharistic of the Son; and mystic (in the hearts of men) of the Holy Spirit. Let us recall this triple Throne in a special way at the beginning and end of the day, and when we sleep on our beds.” What gave cohesiveness to his life is the Trinity, the triune God Father, Son and Holy Spirit. His own love for the Trinity he sought to instill into the SVD missionaries and so he told them: “Since God is three, the glory of the Blessed Trinity is OUR FIRST AND LAST END and our Society wishes to pay devotion to all three Persons according to the statement of St. Augustine: ‘All that lives must be directed to recalling the Blessed Trinity and to seeing and loving Him in order that He may be remembered, be contemplated and loved.’”

This article would like to suggest that prophetic dialogue with those who deny transcendent reality (many of them renowned scientists) should be done in the context of the convergent universe. It is in the context of this dynamic, evolving cosmos that this article would like to conduct the dialogue with those who see the universe differently and who want to “give an account of ourselves, with our peculiar human traits—as mindful, rational, speech-act performing, free-will having, social, political human beings—in a world that we know independently consists of mindless, meaningless, physical particles.”<sup>5</sup> Is the universe ultimately mindless and meaningless? Is it composed of physical particles at all? The cosmos therefore is the context, the widest possible, beyond even the Darwinian theory of evolution and the origin of species, in which these questions of ultimacy I suggest should be asked because we emerged from this creative process and are convergent beings ourselves. In doing so, we might perhaps heal the age-old rift between religion and science. As Nietzsche commented, human beings are the not-yet finished animals. We are continually evolving. Enhancing the quality of our life and the ecosystem on which our life depends is the primary goal of development in the light of the innate human yearning for wholeness and rootedness.

---

<sup>5</sup> See Preface, John Searle, *Making the Social World: The Structure of Human Civilization*, Oxford: Oxford University Press 2010.

*Probing Deeper into the Universe*

The entire universe as disclosed by modern science, especially after the discovery of quantum mechanics, is a self-transcending reality. This universe is convergent—it is a constant process of coming to be and then becoming more complex and more conscious as it evolves to spirit. The cosmic process is the continual unfolding of interconnected webs of quantum fields as it opens itself up to new possibilities. The universe, therefore, is a dynamic, evolving set of networks capable of creating ever new and increasingly complex phenomena. It goes beyond itself as it consolidates the forces, fields and energies that make it up. It transcends itself as it unfolds towards greater levels of complexity and convergence. The cosmos continually becomes more, it is ceaselessly creative without breaking any physical laws. The universe possesses an unexpected capacity for new kinds of behavior and self-organization from the time of the primordial explosion that started it 13.8 billion years ago.<sup>6</sup>

The convergent universe is by definition not yet finished since it is characterized by dynamic change and self-transcendence. Quantum forces and processes interact at each stage of cosmic evolution, with each stage being yet more complex and intelligent than the last. Each of the changes that occur as the universe evolves involves the emergence of new attributes and the appearance of variety. The emergence and divergence are followed by convergence through processes that involve the breaking of symmetry and finding new combinations all the time. And then, novel, unpredictable properties arise and connect. The universe is constantly transforming itself into a myriad of new forms, with new attributes that range from the most elementary forms of emergent matter, such as magnetism and gravity, to more exotic phenomena such as superconductivity, quantum entanglement, then to life—and finally to converge into consciousness, self-reflection, and intelligence itself. With self-knowledge came meaning, value and intentionality. The muons and the gluons, the leptons and the quarks, dark matter and bosons, the protons and electrons, quantum fluctuations and kinetic events interact and generate behavior in the convergent universe that are not found in the interconnected el-

---

<sup>6</sup> In evolutionary biology, convergent evolution usually describes the independent evolution of similar features in species of different lineages. By convergent universe here is meant that all things in the cosmos are impelled by an inner dynamism to become more complex and more conscious in the process of evolution from the Big Bang until the end of time through the combination of contingency, selection and self-organization. As organisms become more complex and more conscious, they also become more integrally whole.

ements themselves. The most affecting quality of the convergent universe is its fuzziness—more mysterious, impervious to explanation, disorienting the more one contemplates it.

The whole cosmos is an undivided and unbroken whole, yet it is more than just the sum of its parts. In this cosmic journey towards the future, what is important is not just the parts or just the whole but the relationships between them. If we are to understand the universe's capacity for self-organization and how it came to converge in spirit, self-consciousness and freedom, we have to see the whole and its parts as codependent and coevolving patterns in an interlocking network of systems. Every structure is the manifestation of an underlying process, a whole within wholes. Ultimately, there are no parts at all, only patterns in a dynamic web of relationships that over time becomes more complex and more conscious wholes. Reality in this constant evolution is by its very nature interrelatedness—the concretization of interconnected, organized patterns of condensed energy within fields or occasions or processes, in the space-time continuum. The biosphere together with the whole cosmos is a self-consistently creative unity.

### *Getting Involved*

We are *dramatis personae* in a universe that offers ever new possibilities as we carry within us seeds of creativity and imagination, living in the present moment mindfully and gratefully in order to create the future. Our values and our yearning for ultimacy are real elements in the convergent universe. These guide our decisions which help shape the future direction of evolution. The human task is to consciously evolve. This involves the deepening of our humanity and personhood through self-transcendence, relationality and creativity. Every human being is impelled by the aspiration to know what is essential, what is real, what is true. We therefore have to allow ourselves to be open to ethical responsibility and aesthetic inquiry towards an integral way of becoming in this evolving world which is our sacred home. We have nothing to be afraid of in the face of Nietzsche's cry: "I implore you, my brothers, remain faithful to the earth, and do not believe those who talk to you of unearthly hopes." In a convergent universe, evolution is the primary way to understand the world and our place in it, and to choose our moral stance towards the earth. From the Christian perspective, the dynamic nature of the universe speaks to us "of the home in which the loving Creator has

placed us.”<sup>7</sup> And thus, our destiny and that of the convergent cosmos are intertwined.

Life is always moving towards greater union in this convergent universe because, for Christians, the Divine Word is its source and goal—it holds the convergent universe together so it remains a consistent whole even as it diversifies and even if extinction events occur regularly. This is what Christianity means—the creativity in the convergent universe is founded on the Divine Word, who therefore is at the heart of the evolutionary process. As privileged bearers of transcendence, every person should then become who he or she truly should be and constantly become more than what he or she is as a center of consciousness and freedom in the evolutionary process. We have to become authentically human by being true to the innate dynamism within us, to our yearning for ultimacy. We must constantly move towards wholeness, towards becoming complete and fulfilled in the journey to the future.<sup>8</sup>

As a faith-community in the 21<sup>st</sup> century, Christians have to place their account of how “the Word became flesh and dwelt among us” in the context of a convergent universe, of a universe in evolution. In the light of the new science, we cannot retreat from the public domain to a no-atheist-in-foxholes theology and hide within the folds of small faith-communities of the *anawim*. We should turn instead to more effective witness within the global culture in full consciousness of how modern science describes reality through their empirical methods. We cannot be selective in our embrace of the scientific understanding of the world. We have to recognize the convergent universe as the stage on which the drama and splendor of God’s love is played, and the context of a metaphysically profound and spiritually alive moral order. Theologians have reflected on metaphysical issues since time immemorial: Why is there something rather than nothing? As Robert Jastrow wrote in *God and the Astronomers*, “For the scientist who has lived by faith in the power of reason, the story ends like a bad dream. He has scaled the mountains of ignorance; he is about to conquer the highest peak; as he pulls himself over the final rock, he is greeted by a band of theologians who have been sitting there for cen-

---

<sup>7</sup> Ilia Delio, *The Emergent Christ: Exploring the Meaning of Catholic in an Evolutionary Universe*, Maryknoll, NY: Orbis Books 2011, 2.

<sup>8</sup> See Diarmuid O’Murchu, *Evolutionary Faith: Rediscovering God in Our Great Story*, Maryknoll, NY: Orbis Books 2002, who writes that humanity’s next evolution will both unite humanity with the life of the planet and bring us closer to God. See also his *Quantum Theology: Spiritual Implications of the New Physics*, New York: Crossroad 2004, where he shows how quantum theory unravels profound theological questions.

turies.” Since their questions about ultimacy often converge, it is important that religion and science “continue to enrich, nourish and challenge the other to be more fully what it can be and contribute to our vision of who we are and who we are becoming.”<sup>9</sup>

The intrinsic indeterminacy in quantum physics and chaos theory can provide breath-taking opportunities for reflecting on the interactive relationship between Jesus the Christ and the unfolding of the cosmos, together with the understanding of the relationship between human agency and divine causality. There is a profound religious value in the scientific vision of the cosmos if it is told in a way that does not stress only the mechanical aspect, the random aspect, the purely rationalistic and reductionistic process that undermine the numinous quality of the cosmos and disengage us from communion with the earth. In the light of an integral, interactive and dynamic theology, the Divine Word as the ultimate ground of being and intelligibility seems to be a better framework for doing theology in an evolving cosmos and for explaining the interface between divine and creaturely causality. The divinity and the humanity of Christ is the integrating center of the convergent universe where we are on a pilgrimage across space and time to strive for wholeness and live in transcendence, journeying into the mystery with faith and boldness.

Quantum entanglement, dark energy, morphogenetic fields—these are some concepts from the sub-atomic world that can serve as metaphors for a deeper insight into the understanding of the Incarnation, the human being, and the world and how the Word-made-flesh, the Incarnate Word, grounds the sacredness of the evolving cosmos. They might help explain how the universe thrives on the threshold of a future filled with the promise of openness to new life. Christian faith proclaims that the orientation, drive and radial energy that moves the universe through the progression of greater complexity and consciousness through time comes from the one and triune God who creates the future in love. Since ours is a convergent universe, we have to live our lives forward, according to Kierkegaard. Quantum physics can help Christians in pushing the new evangelization forward—in the re-enchantment of reality and the deeper understanding of the essential God-hauntedness of human beings desperately seeking meaning and thirsting for the fullness of being in an evolving cosmos.<sup>10</sup> Modern science can be a deep source for a cosmic spirituality

---

<sup>9</sup> John Paul II/Robert J. Russell/William R. Stoeger/George V. Coyne, *John Paul II on Science and Religion: Reflections on the New View from Rome*, Notre Dame, IN: University of Notre Dame Press 1991.

<sup>10</sup> In *The Universe Story: From the Primordial Flaring Forth to the Ecozoic Era—A Celebration of the Unfolding of the Cosmos*, San Francisco, CA:

as we seek to fathom our deepest longings, those that shape our values and guide our behavior: yearnings that help us know who we are to become and what we are to do in the star-crossed twilight between birth and dying.

*Integrated into Relationships*

We now no longer have a comprehensive story of the universe. Religions often focus only with the human being and redemption, as if the human were something separate from the story of the universe. Scientists have given detailed accounts of the cosmos, but have focused exclusively on the physical dimensions and have largely ignored the human and subjective dimensions of the cosmos. The evolutionary convergence of matter and energy, of life and consciousness cannot be reduced or derived from physics and mathematics alone. Logic and mathematics are but a few of what highly evolved, integrated human beings use to live their lives forward. If we use the rational-analytic-reductionist-linear mode of thinking, we are going to learn something about the universe, but not others. If we use the intuitive-synthetic-holistic-nonlinear mode, we will also learn other things.

We have to reexamine the deepest part of our humanity to reunite ourselves in the whole, and integrate our full humanity and our civilization with the evolving universe. We have to come to terms with the awe and the wonder and the beauty that microbiologists feel when they focus an electron microscope on a DNA strand, that astrophysicists experience when listening to a distant pulsar through a radio-telescope, or devotees experience when celebrating the Eucharist—the word “wonder” cannot give this feeling justice. A reductionist science would be grossly inadequate for truly understanding the wonders of existence, but interesting questions arise from science knowledge which adds to the excitement, the mystery and awe we experience in contemplating the universe and all that is in it, the yearning for mystery and meaning which makes us human.

The explanation of Christian faith in the light of a convergent universe might serve as a better place for the meeting of minds between scientists and militant atheists. It might also proffer an invitation for each of them to clarify their metaphysical assumptions when they make assertions beyond the realm of their expertise. Militant athe-

---

Harper 1994, Brian Swimme and Thomas Berry showed how the scientific and religious view of the world can be reconciled since there can be no separation between humanity and the creative universe that brought us into being.



ists should examine their own metaphysical assumptions with as much ferocity as they examine those of believers. They should not separate what they know from what they are.<sup>11</sup> In a lecture in the convent of Saint Scholastica in Subiaco, Italy, the day before Pope John Paul II died, then Cardinal Ratzinger remarked that our duty just like other Christians is “to live a faith that comes from the *Logos*, from creative reason, and that, because of this, is also open to all that is truly rational.”

Nevertheless, we have to understand the question of faith using both hemispheres of our brain, both the rational and the intuitive. John Feehan wrote of his absolute commitment to unconditional human understanding based on the totality of human experience. His criticism of a reductionist science is that “it is not scientific enough in the sense that it does not embrace the totality of experience, only those dimensions that can be measured and quantified.”<sup>12</sup> Our values and our dreams cannot be deduced from the interactions of strings and particles alone. Believer or not, we are all connected to a universe more mysterious than what we can see and hear around us.

The future belongs to a very different kind of human being with a very different kind of mind—inventors, artists, designers, storytellers, caregivers, counselors. Daniel H. Pink contends that we are moving away from an economy and society built on the logical, linear, computer-like capabilities of the Information Age to an economy and a society built on the inventive, empathic, big-picture capabilities of what is rising in its place. This new way of thinking “involves the capacity to detect patterns and opportunities, to create artistic and emotional beauty, to craft a satisfying narrative, and to combine seemingly unrelated ideas into something new.”<sup>13</sup> The future will belong to people who think in this new way—innovators and emphaziers, pattern recognizers and meaning makers. We have to speak to

<sup>11</sup> John R. Shook, *The God Debates: A 21<sup>st</sup> Century Guide for Atheists and Believers (and Everyone in Between)*, Oxford: Wiley-Blackwell 2010, describes the conceptual foundations and worldviews of those engaged in the believer/unbeliever debates (p. 217). Shook believes it is possible to harmonize reason and faith through a staunchly naturalistic yet faithfully ethical humanism. See also David G. Meyer, *A Friendly Letter to Skeptics and Atheists: Musings on Why God Is Good and Faith Isn't Evil*, Hoboken, NJ: Wiley–Jossey-Bass 2008. The book is a polite and rational plea for reason and understanding. See also Michael Novak, *No One Sees God: The Dark Night of Atheists and Believers*, New York: Doubleday 2008.

<sup>12</sup> *The Singing Heart of the World: Creation, Evolution and Faith*, Maryknoll, NY: Orbis Books 2012, xiv.

<sup>13</sup> See *A Whole New Mind: Why Right-Brainers Will Rule the Future*, New York: Riverhead Books 2005, 2-3.

these people as well, not only in the cognitive level to scientists, intellectuals and academics, about the harnessing of energy towards a new wholeness.

We should seek to discover new patterns of interconnectedness with other sentient beings to evolve together towards greater unity.<sup>14</sup> Turbulence and chaos is present at the very core of the convergent universe. There is always the potential for complex and unpredictable behavior. And so while it can appear as hopelessly complex, turbulent and chaotic, a strange order can often disclose itself in the midst of chaos. In the face of order and chaos in a convergent universe, we might be able to provide a definition of God in a radically new and empowering way that converges our thinking and could help inspire and unite us in the dangerous era humanity is entering.

For centuries, Western thought patterns have been mostly structured by a narrowly reductive and deeply analytical way of thinking. This has to be balanced with the non-linear, intuitive and holistic thinking of Eastern ways of thinking so that the qualities of empathy, joyfulness, and integral thinking can balance the one-sided thinking about God. Eastern thought patterns believe that analogy and metaphor are central to reason. The Western tradition has for the most part vanished metaphor from the cognitive dimension. Imaginative cognition might take us farther into the realm of what we can understand about a convergent universe. Science is only one of the ways we can understand the world. It cannot venture into realms beyond what is empirical and measurable, especially towards human spirituality, with the concern for the meaning and purpose of life. Science and theology should be understood as interacting approaches to our experience of life in the universe as questioning, as a quest for meaning and understanding that can be expressed in a variety of ways. The objective remains the same—the recovery of wholeness, of a deeply holistic understanding of what it means to be an embodied spirit in the convergent cosmos. Knowledge without meaning is impoverished. It would be worthless if it cannot help us discover purpose in the unfolding of the universe.

---

<sup>14</sup> In an evolving cosmos, we are much more like a river because our body changes by the moment. Our skin is new every four weeks, our liver every six weeks. Our brain changes its content of carbon, nitrogen and oxygen every year. See Margaret J. Wheatley, *Leadership and the New Sciences*, San Francisco, CA: Berrett-Koehler Publishers 2006, 103, quoting from Deepak Chopra that a cell is “a memory that has built some matter around itself, forming a specific pattern.” Our bodies are the places our memory calls home. The universe is the matrix from which consciousness emerges and it is its dynamism which shapes our becoming.

Neuroscience suggests that the capacity for faith, for believing in something beyond, in something greater than the merely human, may be hardwired in our brains. Steven Quartz, a neuroscientist from Caltech, has this to say: “Studies of our biological constitution make it increasingly clear that we are social creatures of meaning, who crave a sense of coherence and purpose.”<sup>15</sup> We have to discuss whence this convergent universe with ever new possibilities arising came from, why we expect that it has purpose and meaning, and why we have an understanding of moral responsibility. Feehan writes that the “potential for order and beauty, and ever-growing complexity and awareness, are demonstrably built into the structure of matter at its deepest and most fundamental level.”<sup>16</sup> Therefore we need teleological language (from the Greek *telos*, goal) to express the purpose and the goal of the convergent universe, framed in terms of moral reasons, intentions, motives, objectives and free will. We have to express this in religious language and in scientific reports, and be always conscious of the differences in each way of talking about reality.<sup>17</sup>

C. S. Lewis has described these two opposing worldviews in *Mere Christianity*. The materialist view thinks that matter and space just happen to exist, and always have existed, nobody knows why; and that matter, behaving in certain fixed ways, just happened, by a sort of fluke, to produce creatures like ourselves who are able to think.

<sup>15</sup> See [www.edge.org](http://www.edge.org), April 26, 2013. Quartz continues, “Yet, our modern way of life seems to provide fewer and fewer opportunities to engage in the group life that satisfies these human needs—indeed, many of its structures and institutions stunt these very needs. In addition to these obstacles within the design of modern life, it’s my hunch that modernist culture is based on a profoundly mistaken view of human needs. The upshot is a deeply flawed view of human happiness as the private pursuit of self actualization.”

<sup>16</sup> John Feehan, *The Singing Heart of the World*, Maryknoll, NY: Orbis Books 2012, 61.

<sup>17</sup> Christian Platt, in a blog in *Sojourners* (Sept. 25, 2013), commenting on an interview of Richard Dawkins by Jon Stewart, wrote that “Once we worship a system like science or religion, we become willfully blind to its shortcomings, its potential for damage, choosing only to see the things we want to see. Our ambition for the advancement of a cause or an idea becomes, in itself, fanaticism. Science for the sake of science, or religion for the sake of religion, nearly always possesses within it the potential for great danger, especially if the humanity that both were meant to serve comes second to the ideas and ideals of the system we have come to worship.” Dawkins, quoting British Astronomer Royal Sir Martin Rees, cited the potential 50-percent chance for humanity to survive, stating that Rees fears that the fruits of scientific advancement—the bad fruits, things like dirty bombs, things like biological warfare—could get into the hands of religious fanatics, who unlike all other terrorists actually want to die.

For believers, a universe without spirit would be horribly boring and utterly meaningless. The religious view thinks that spirit is the basis of all reality—what is behind the universe is more like mind than anything else we know—it is conscious, and has purposes and prefers one thing to another. It made the universe for purposes we do not know, but partly, at any rate, in order to produce creatures like itself, to the extent of having minds. Without God as Absolute Future of everything that is, believers hold that, ultimately, there would be no difference between being and non-being, no essential distinction between good and evil, all values are subject only to one's private preferences, and there is no meaning or significance beyond the factualness of the firings of the neurons in the brain and the eventual collapse of the stars and galaxies. As Albert Einstein once said, "There are only two ways to live life. One is as though nothing is a miracle. The other is as though everything is."

Only a human being completely detached from the oneness of the cosmos can think of life's meaning in terms of his or her own alone. In this convergent universe, we hunger to bring our spiritual values, our fundamental yearning to find purpose and meaning, our whole person into everything that we do. Why should I take the moral demand as a demand upon me if the emergent universe will end in nothingness? What is the ultimate ground for our moral decisions if God does not exist? Jean-Paul Sartre realized this when he said: If atheism is true, there can be no absolute or objective standard of right and wrong, for there is no eternal heaven that would make values objective and universal. The global emergencies humanity is facing today call for the recognition of natural moral law, objective truth, and clear limits to human behavior.

## ***II. The Origin of the Convergent Universe***

*"The more I examine the universe and the details of its architecture,  
the more evidence I find that the universe in some sense  
must have known we were coming."*

(Freeman Dyson – Disturbing the Universe)

The mysteries of faith need more than raw rationality because God is not an object like any other. Atheists should stop asking believers that if God created the universe, who created God, as if God were an anorexic, intramundane phenomenon. Francis Collins maintains that belief in God will always require a leap of faith because no logical argument can prove whether God is real or non-existent. Faith

can neither be affirmed nor denied by using scientific methods. The truth of faith, according to Collins, can be tested only “by the spiritual logic of the heart, the mind, the soul,” when it asks questions which science cannot answer: “How did the universe come into being? What is the meaning of human existence? What happens after we die?”<sup>18</sup> To one who has faith, there is very little that atheism can say about misery, moral failure, pain, suffering and death, especially about the darkness and consuming fire in which alone God can be found. As Sir Fred Hoyle wrote, “A common sense interpretation of the facts suggests that a superintellect has monkeyed with the physics, as well as with chemistry and biology, and that there are no blind forces worth speaking about in nature. The numbers one calculates from the facts seem to me so overwhelming as to put this conclusion almost beyond question.”

The idea of a Creative Designer is a bitter pill for many cosmologists to swallow. As Arthur Eddington wrote, “Philosophically, the notion of a beginning of the present order of Nature is repugnant to me... I should like to find a genuine loophole.”<sup>19</sup> But a clear parallel exists between the Big Bang as a cosmic event and the Christian notion of creation from nothing. The most cataclysmic event we can ever imagine, upon closer inspection, appears to be finely-tuned so that life can arise.<sup>20</sup> After the Big Bang has been proven, I find I only have

<sup>18</sup> Francis S. Collins, *The Language of God: A Scientist Presents Evidence for Belief*, New York: Free Press 2006, 6. Collins headed the project to map the human genome. He claims that atheism must be considered a form of blind faith, in that it adopts a belief system that cannot be defended on the basis of pure reason. Other scientists claim that we have a genetic predisposition for spiritual belief, that spirituality is an instinct imprinted in our biological make-up. See Dean Hamer, *The God Gene: How Faith Is Hardwired into Our Genes*, New York: Doubleday 2004. David Berlinski criticizes Dr. Hamer for concluding that a person’s capacity to believe in God is linked to his brain chemicals in *The Devil’s Delusion: Atheism and Its Scientific Pretensions*, New York: Basic Books 2009. This is the same conclusion that Matthew Alper does in *The “God” Part of the Brain: A Scientific Interpretation of Human Spirituality and God*, Naperville, IL: Sourcebooks 2006, who agrees with Hamer.

<sup>19</sup> Arthur Eddington, *The End of the World: From the Standpoint of Mathematical Physics: Nature* 127 (1931) 450. Einstein also tried to avoid such a beginning by creating and holding onto his cosmological “fudge factor” in his equations until 1931, when Hubble’s astronomical observations caused him to grudgingly accept “the necessity for a beginning.” See Vibert Douglas, *Forty Minutes with Einstein: Journal of the Royal Astronomical Society of Canada* 50 (1956) 100.

<sup>20</sup> “Every one of these forces must have just the right strength if there is to be any possibility of life. For example, if electrical forces were much stronger than they are, then no element heavier than hydrogen could

two choices: The Big Bang dates the moment of creation, or the universe can create itself from nothingness.<sup>21</sup> Stephen Hawking wrote earlier that, “The odds against a universe like ours emerging out of something like the Big Bang are enormous. I think there are clearly religious implications.” He also wrote that, “The laws of science, as we know them at present, contain many fundamental numbers, like the size of the electric charge of the electron and the ratio of the masses of the proton and the electron.... The remarkable fact is that the values of these numbers seem to have been finely adjusted to make possible the development of life.” However, in *The Grand Design*,<sup>22</sup> Hawking claims that it is the laws of physics and not the creative power of God that provide the explanation about the coming to be of the universe: “Spontaneous creation is the reason there is something rather than nothing, why the universe exists, why we exist. It is not necessary to invoke God to light the blue touch paper and set the universe going.”

John Lennox counters that when Hawking claims the universe will create itself from nothing, it is not the non-being that theologians mean when they say *creatio ex nihilo*. According to Lucretius in *De Rerum Natura*, *Ex nihilo, nihil fit*—Nothing can come out of nothing. If there were already physical laws before the Big Bang, Hawking is presupposing the existence of the universe to account for its own existence. This is the same as Peter Atkins claiming that “space-time generates its own dust in the process of its own self-assembly,” which is blatantly self-contradictory.<sup>23</sup> If the origin of the universe came

---

form ... But electrical repulsion cannot be too weak. If it were, protons would combine too easily, and the sun ... (assuming that it had somehow managed to exist up to now) would explode like a thermonuclear bomb.” Richard Morris, *The Fate of the Universe*, New York: Playboy Press 1982, 153.

<sup>21</sup> “If we accept the big bang theory, and most cosmologists now do, then a ‘creation’ of some sort is forced upon us,” Barry Parker wrote in *Creation—the Story of the Origin and Evolution of the Universe*, New York & London: Plenum Press 1988, 202. Compared to the alternative of supposing that matter and energy somehow always existed, British physicist Edmund Whittaker says, “It is simpler to postulate creation *ex nihilo*—Divine will constituting Nature from nothingness.” (Cited in Fred Heeren’s *Show Me God: What the Message from Space Is Telling Us about God*, Miamitown, OH: Day Star Publications 2000, 121).

<sup>22</sup> Stephen Hawking and Leonard Mlodinow, *The Grand Design. New Answers to the Ultimate Questions of Life*, London: Transworld Publishers 2010.

<sup>23</sup> Steeped in the Platonic tradition, according to Paul Davies, theoretical physicists locate the mathematical laws of physics in a Platonic realm

from a quantum fluctuation of zero total energy, there was still a quantum field in which the fluctuation can occur, and there would still be the laws of physics governing it. This is not the “nothing” that theologians mean.<sup>24</sup> In this context, theologians claim that the universe is contingent, it has no intrinsic ground for coming to be, no reason within itself to exist at all, and why it is converging. And they mean by nothing that before the Big Bang there was no time, no space, no gravity, no quantum fluctuations, no singularity, no nothing.

### *Ultimate Concerns*

From the point of view of our ultimate concern, the movement towards transcendence and growth leading to the fullness of life defines our humanity. One avenue for dialogue can be the anthropic principle which requires any cosmological theory to take into account the fact that the universe has evolved to contain us. If the laws governing the cosmos had differed only slightly from what the scientists observe them to be, life would not have been possible and there would be no one to observe the universe. The slightest deviation from the initial conditions would have made utterly impossible the development of a universe hospitable to life and human beings. If this is the only universe, chance cannot explain the highly precise cosmological constants, so many and so precise in their mathematical values, that made it hospitable to us. Science as a systematic way of gaining empirical knowledge can deal only with limited and approximate descriptions of reality in an evolving universe.<sup>25</sup>

The answer of some scientists to the question of fine-tuning is that there is an infinite number of universes with different sets and combinations of constants. String theory, which many in the scientific community believe will provide a quantum theory of gravity much like the unified theory of Einstein, holds that reality is made up of

---

that transcends physical reality: *The Goldilocks Enigma: Why Is the Universe just Right for Life?*, New York: Houghton Mifflin 2006, 13.

<sup>24</sup> Lawrence Krauss, a theoretical physicist, in his book *A Universe from Nothing: Why There Is Something Rather than Nothing*, New York: Atria Paperback 2013, has this idea of “nothing,” and that the universe came out of this nothing through quantum fluctuations: “In one sense it is both remarkable and exciting to find ourselves in a universe dominated by nothing. The structures we see, like stars and galaxies, were all created by quantum fluctuations from nothing” (p. 105).

<sup>25</sup> See Krauss, *A Universe from Nothing*, whose methodological presupposition is that only questions asked within the context of the natural sciences are genuinely rational ones.

one-dimensional strings that vibrate. The modes of vibration correspond to different particles. How many alternative string theories are there? 10 raised to the 500<sup>th</sup> power.<sup>26</sup> The idea of the universe creating itself is the key argument in Hawking's *The Grand Design*. It is not only this universe that created itself. Hawking continues: "M-theory predicts that a great many universes were created out of nothing. Their creation does not require the intervention of some supernatural being or god. Rather, these multiple universes arise naturally from physical law." The universe is now explained by positing multiverses that are in principle undetectable, unobservable, and ultimately unknowable. Stuart Kauffman asks, "If we are to postulate multiple universes yet have no access to them and cannot confirm their existence, have we actually explained anything at all?"<sup>27</sup>

A universe that creates itself is a contradiction in terms. Physical laws do not have creative powers, as Paul Davies seems to ascribe to them when he says that a set of mathematical laws brought the universe into being. Who brought these physical and mathematical laws into being? For atheists, the ultimate fact is the universe. Since theologians believe that the universe cannot have created itself, their ultimate fact is the eternal God. This is a simpler explanation to me than positing the existence of unobservable, multiple universes. It is also the simpler explanation for millions of other believers. "Lift your eyes and look to the heavens: Who created all these? ... Do you not know? Have you not heard? The Lord is the everlasting God, the Creator ..." (Isa 40:26a,28a). Religious faith is addressed to the whole human being, in the context of other sentient beings and objects in the convergent cosmos. What does scientific faith say about morality and ultimate meaning to the whole person?

Many believers have taken up the challenge of the militant atheists and have articulated their theological positions in the intellectual dimension. Using the latest findings in astrophysics, philosophy and basic logic, Robert Spitzer, in carefully reasoned and well-documented arguments, puts forth evidence capable of grounding reasonable and responsible belief in a super-intelligent, transcendent, creative

---

<sup>26</sup> "There is no explanation in the Big Bang theory for the seemingly fortuitous fact that the density of matter has just the right value for the evolution of a benign, life supporting universe." Robert Jastrow, *God and the Astronomers*, New York and London: W. W. Norton & Company 1992, 93.

<sup>27</sup> Stuart A. Kauffman, *Reinventing the Sacred: A New View of Science, Reason and Religion*, New York: Basic Books 2008, 30.



power as the origin of the universe.<sup>28</sup> There are rational foundations, he wrote, for the existence of a unique, unconditioned, unrestricted, absolutely simple, super-intelligent continuous Creator of all else that is, the causative power transcending universal time and space. John C. Lennox, who teaches mathematics and philosophy of science at Oxford, says that the rational intelligibility of the universe points to the existence of a Mind if one considers the most recent science from physics and biology.<sup>29</sup> Thus, the problem is not between science and faith but between naturalism and theism. However, positions taken for or against naturalism or theism are structured by one's worldview which is shaped by culture, experience and reflection. This is the reason why very few people are convinced by reasoning alone that God exists. People are very seldom persuaded by logic to change their views because these views are shaped by their preconceived and subconscious assumptions. In religion as well as science, there is always the danger of missing the forest for the trees—what we see depends on how we look. God is *ipsum esse subsistens*, the sheer act of being itself, the limitless ocean of being from whose fullness the universe in its entirety exists, the ultimate reason why the universe exists at all. By definition He must contain within himself the reason for his own existence. God is not therefore an intramundane phenomenon. The fundamental equivocation in the use of the term “God” by both believers and atheists contributes to the pointlessness and meanness of most of the debates about God's existence.<sup>30</sup>

The implicit metaphysical beliefs of many scientists, their a priori commitment to a materialist ontology which bracket out life and consciousness, determine their vision of what is real and what is not.<sup>31</sup>

<sup>28</sup> Robert Spitzer, *New Proofs for the Existence of God: Contributions of Contemporary Physics and Philosophy*, Grand Rapids, MI: William B. Eerdmans 2010.

<sup>29</sup> John C. Lennox, *God's Undertaker: Has Science Buried God?*, Oxford: Lion Press 2009.

<sup>30</sup> Brendan Purcell, for instance, criticizes Richard Dawkins' *The God Delusion* with an examination of its implicit epistemology. Dawkins too readily conflates the notion of God with the phenomenon of religion and, according to him, reduces reason to the rationality of the natural sciences alone. See Fran O'Rourke (ed.), *Human Destinies. Philosophical Essays in Memory of Gerald Hanratty*, Notre Dame, IN: Notre Dame University Press 2013, 337-365.

<sup>31</sup> See Thomas Nagel's *Mind and Cosmos: Why the Materialist Neo-Darwinian Conception of Nature Is Almost Certainly Wrong*, New York: Oxford University Press 2012. Nagel argues that an exclusively materialist view of nature cannot account for consciousness, human knowing, and human freedom. He wrote that we have to explain how the universe can give rise to organisms that are more than physical.

Thus they consider human ideas about dignity and freedom as accidental by-products of our evolutionary history. This narrowed vision, however, cannot adequately make full sense of the findings of quantum physics whose most crucial discovery is of a convergent universe that continually brings about new being, a cosmos that is a harmony of unity and diversity, of order and chaos, of stability and motion, of form and dynamism. It is only an alienated individual who believes he does not share the ultimate destiny of the universe that can think a personal meaning of his own individual life is sufficient. The cosmic process is in a very real way interior to our becoming human, to the purpose and meaning of our existence because the universe cooperates actively in the coming to be of life and mind. No matter what personal meaning we might discover for ourselves, this is ultimately meaningless if the universe itself is without meaning and purpose.<sup>32</sup> David Steindl-Rast believes that in this context we have to ask: “Are you speaking as a scientist now, or as a human being who happens to be a scientist?”

Richard Swinburne says that the existence of God, from the point of view of the calculus of probabilities, is the simplest and most probable hypothesis for the explanation of the world as known by science. Quantum physics, as far as I can understand it, points to a kind of metaphysical space which can allow for divine agency in the universe and the causal agency of creatures which gives them the freedom to act as independent beings. And so, the metaphysics of the future brings us beyond conventional standards of rationality and levels of consciousness. One has to see beyond preconceived reference frames to fully experience the unfolding of the present moment and extrapolate to the Uncaused Cause behind the building blocks and the multiple levels of a convergent universe. This Uncaused Cause rigged the laws of physics in favor of complexity, in favor of life, in favor of consciousness, or in the words of Teilhard de Chardin, God makes things make themselves. This viewpoint implies, in the words of Paul Davies, “that mind is written into the laws of nature in a fundamental way.” I have to postulate a Creative Designer for a “vision of a self-organizing and self-complexifying universe, governed by ingenious laws that encourage matter to evolve towards life and consciousness,” a universe in which the emergence of thinking beings is a fundamental and integral part of the overall scheme of things, an emergent

---

<sup>32</sup> “To make sense of this view [design as opposed to accident], one must accept the idea of transcendence: that the Designer exists in a totally different order of reality or being, not restrained within the bounds of the Universe itself.” George F. R. Ellis, *Before the Beginning—Cosmology Explained*, London/New York: Boyars/Bowerdean 1994, 97.

universe in which we are not alone. Paul Davies has moved from promoting atheism to conceding that “the laws [of physics] ... seem themselves to be the product of exceedingly ingenious design.”<sup>33</sup> He further testifies that, “There is for me powerful evidence that there is something going on behind it all ... it seems as though somebody has fine-tuned nature’s numbers to make the Universe ... The impression of design is overwhelming.”<sup>34</sup>

God is outside of nature, by definition, and science can neither prove nor disprove divine existence. It is not true to say therefore that science supports atheism. Whether there is anything behind the things science observes—something of a different kind—is no longer a scientific question. There will always be things that will elude our grasp forever because of quantum uncertainty—it is difficult to characterize the natural or the material. If the goal of our life is always to recover wholeness as embodied spirits in the world and to arrive at higher realms of consciousness and understanding, we have to go beyond the reductionist method of arriving at the truth and have a little humility. As Albert Einstein said, “What separates me from most so-called atheists is a feeling of utter humility toward the unattainable secrets of the harmony of the cosmos.” He also said that, “The scientist is possessed by the sense of universal causation ... His religious feeling takes the form of a rapturous amazement at the harmony of natural law, which reveals an intelligence of such superiority that, compared with it, all the systematic thinking and acting of human beings is an utterly insignificant reflection.” As John Horgan in his *Rational Mysticism*<sup>35</sup> pointed out, “Just as believers in a beneficent deity should be haunted by the problem of natural evil, so agnostics, atheists, pessimists and nihilists should be haunted by the problem of friendship, love, beauty, truth, humor, compassion, and fun. Never forget the problem of fun.”

How can we rationally discuss religious experience in the context of probability fields and emergent complexity? Can religious experience be reduced to neuronal activity? Are physical and biological explanations (epistemologically and methodologically materialist in their assumptions) the only legitimate explanations of this radically human experience? This kind of religious joy, rooted in imaginative *Ehrfurcht*, can be known only by being lived and celebrated. It has to

<sup>33</sup> Paul Davies, *Superforce: The Search for a Grand Unified Theory of Nature*, London: Penguin Books 1995, 243.

<sup>34</sup> Id., *The Cosmic Blueprint*, Philadelphia/London: Templeton Foundation Press 2004, 203.

<sup>35</sup> *Rational Mysticism: Dispatches from the Border between Science and Spirituality*, New York: Houghton Mifflin 2003.

be dealt with on its own terms by a science adequate to its level of complexity. Neuroscientists using near-infrared spectroscopy and transcranial magnetic stimulation might claim that experiences like those of the contemplatives are merely epiphenomena, brain states that have no correspondence at all to an ultimacy beyond the brain itself. However, brain scans and radioactive tracers might know what every atom in the brain is doing, but they cannot know a single thought that the same brain is thinking or anything about the specific contents of the thinker.<sup>36</sup> It is dangerous to focus too much on what machines can measure, and deny the essential things that are invisible to the eye. We cannot understand a thing by breaking it apart and inspecting all the pieces. In fact, the essential things cannot be broken apart, because as Kauffman suggests, ours is a nonergodic universe “in which ceaseless unforeseeable creativity arises and surrounds us,” and therefore “reason alone is an insufficient guide to living our lives forward.”<sup>37</sup>

### ***III. The Converging of the Universe***

*“An organized being is then not a mere machine, for that has merely moving power, but it possesses in itself formative power of a self-propagating kind, which it communicates to its materials though they have it not of themselves; it organizes them, in fact, and this cannot be explained by the mere mechanical faculty of motion.”*

(Immanuel Kant)

What is the significance of the Divine Word in a convergent universe, to be at the core of the yearning for more life and ultimacy?

In the early church, the Logos was equated with the principle of order in an evolving world. The idea of development and evolution of the cosmos was already discussed by Christian thinkers in the early centuries, especially by Justin the Martyr, Gregory of Nyssa, Tertullian and Augustine. They understood God as having created the

<sup>36</sup> Karl Sabbagh believes that our brains may never be well enough equipped to understand how the universe originated, evolved and operates. See “The Human Brain Will Never Understand the Universe,” in: John Brockman (ed.), *What Is Your Dangerous Idea? Today’s Leading Thinkers of the Unthinkable*, New York: Harper 2007, 102-104, and Lawrence M. Kraus’ “The World May Be Fundamentally Inexplicable,” in: *ibid.*, 105-107.

<sup>37</sup> *Ibid.*, 130. Kauffman is convinced that the unfoldings of the universe, biosphere and human history are not fully describable by the laws of nature.

world in seed form, with certain potentialities.<sup>38</sup> The Stoics called these embryonic forms *logoi*. The early Christian philosophers and theologians incorporated the idea of the *logoi spermatikoi* (seedlike principles of seminal reasons) from Stoic philosophy into their understanding of the cosmos. In some way, they anticipated the contemporary understanding that within the embryonic forms of living beings of all sorts there is something intelligible—genetic information that governs a sequence of related events over time. These potentialities then developed and unfolded over time; what appears to be change is simply the realization of pre-existing potentialities in the within of things. The Christian understanding revolves around the relationships between a convergent universe in the process of coming to be, the intricate web of organized processes we call the biosphere, creatures becoming more than they were, and the dynamic being of the one and triune God.

When God created the world, he planted the *logoi spermatikoi* from which everything came into being. New and coherent structures, patterns and properties come to existence during the process of self-organization of everything that is. Christians believe in a Creative Designer making a rationally based universe developing over time that can be understood by physical laws and rational minds since creative design is built into the rational potentiality of a convergent cosmos. This material universe was endowed with properties from the beginning that led to the arising of consciousness and thought, the potential to give rise to living beings with minds and subjectivity. Intentionality, consciousness, subjectivity and interiority, go all the way back to the Big Bang. In the light of the new story, the story of a convergent universe, we proclaim afresh our faith in the Christian story—we are creatures of the one and triune God who has included us in the divine choreography of the universe through the life, death, and resurrection of Jesus of Nazareth. This is the cosmic love story believers celebrate through the beauty of the liturgy, the truth of ecclesial doctrines and the goodness of social teaching. The Cosmic Christ is the symbol of the ultimate divinization of the universe when God will be all in all (1 Cor 15:28). It also means that the death of Jesus on the cross is not something that happened 2,000 years ago, it is happening with the burning of the rainforests and driving species to extinction and destroying the entire biosphere.

The Trinity is the central datum of Christianity, the essential framework and context for understanding the evolutionary cosmos.

---

<sup>38</sup> St. Augustine wrote for example that “A reality pregnant with the future was created at the beginning of time, still formless, but already containing all forms of being within itself.”

For Christians, the Trinity is the appropriate metaphor for making sense of this convergent universe and to better understand the new grammar, narrative pattern and thinking style the cosmic processes are teaching us today. This can lead towards a new theology of human flourishing and significance in this convergent universe. The triune God “whose power is revealed in nature and whose providence is revealed in history” is the dance, the energy, the movement at the center of creation. St. Athanasius, in his first letter to Serapion, describes the Trinity as “a wholly creative and energizing reality, self-consistent and undivided in its active power.” The Trinity is our way of saying that the triune God does the dance of creation perfectly—all of the dancers are in total harmony. Central to understanding the Trinity in the early church is the nature of the inter-relatedness of everything that is—we cannot be fully ourselves without being in communion with all that exists. We are beings that are already beyond. We become ourselves only by transcending our very self. We do that by making the Trinity shape the way we live and move and have our being. A radical element of Catholicism, as Thomas Aquinas noted, is that we are called by God for union with God, for friendship with God, and that friendship with God requires loving our neighbor. This should also mean being stewards of creation.

The eschatological promise for the new heavens and the new earth means that the Spirit will make us one with Christ and one with God to live forever in the Kingdom. By the Spirit’s power, we will come to enjoy the relationship with the Father that Jesus enjoys. What was true about Jesus in the past will become true for us in the future and will be true for the universe also—“We know that the whole creation has been groaning as in the pains of childbirth right up to the present time” (Rom 8:22). Today, trinitarian theology is being recovered as a relevant and intelligible way, according to Catherine Mowry-LaCugna, to articulate what it means to be saved by God through Christ in the power of the Holy Spirit.<sup>39</sup> In this perspective, the doctrine of the Trinity is not reduced to a sort of celestial theory without effective consequences on the level of the concept of God, the salvation of the human being and the fulfillment of the universe.<sup>40</sup>

Niels Bohr explained that a great truth in quantum physics is one for which the opposite is also a great truth. Reality is neither one nor

---

<sup>39</sup> Catherine Mowry-LaCugna, *God for Us: The Trinity and Christian Life*, San Francisco: Harper 1991.

<sup>40</sup> See Cynthia Bourgeault, *The Holy Trinity and the Law of Three: Discovering the Radical Truth at the Heart of Christianity*, Boston: Shambhala 2013, which attempts to discover in the idea of the Holy Trinity a striking vision of the nature of reality.

many, neither separate nor unified; it is above any form of conceptual elaboration. In the same manner, only in the way of contemplation can one begin to understand how God is immanent in the wave packets of energy at the subatomic level and yet infinitely beyond the farthest galaxy in the observable universe—how God is one in three. The Trinity is absolute subjectivity beyond all duality. “If the Father and the Son are not two, they are not one either: the Spirit both unites and distinguishes them,” according to Raymond Panikkar’s use of *advaita* to explain Trinitarian belief.<sup>41</sup> God is one and God is three—one has to rise above the duality of subject and object to begin to understand Trinitarian faith. One has to transcend the separate self, go beyond the ego, in order to comprehend the plurality of oneness and the oneness of plurality. In Hindu tradition, being one and being many are not understood as true opposites and hence talk about the Ultimate must involve paradoxical statements. The understanding of the *trimurti* in Hindu religion, where at its most elementary level, Brahma is the Creator, Vishnu is the Sustainer, and Shiva is the Destroyer, is understood in this both/and of *advaita* philosophy. In Zen philosophy, the real self is beyond the duality of the self and the non-self: zero equals infinity and infinity equals zero. A Sufi saying counsels, “You think that because you understand *one*, you must understand *two*, because one and one makes two. But you must also understand *and*.” Similarly, the three-fold nature of God in the Christian understanding is not numerical plurality, nor separate aspects of the divinity—it is understood in a non-dualistic way.

The Father is the God-before-us, according to Juan Luis Segundo, the Son is God-with-us and the Spirit God-within-us. This Spirit is not simply identical with the Father and the Son—he is the mode in which God gives himself to us, the mode in which he enters into us. Yet in the midst of this indwelling, God remains infinitely above us. God incarnate in Jesus and present to us in the Spirit places him within the space-time continuum of our ordinary experience. That is the reason why trinitarian language is already embedded in the primary symbolic utterances of the New Testament, even if the word “trinity” cannot be found in it. The primordial experience of God by the early church speaks of God sending his Son to give the Spirit so that humanity may be constituted into the body of Christ and return to the Father in his gift of himself and our gift of ourselves.<sup>42</sup> Thomas

<sup>41</sup> Raymond Panikkar, *The Trinity and World Religions*, Madras: The Christian Literature Society 1970, 42. See also his *The Trinity and the Religious Experience of Man*, Maryknoll, NY: Orbis Books 1973.

<sup>42</sup> Gordon D. Fee argues that St. Paul’s understanding of salvation included God’s loving initiative, Christ’s effectual work on the cross, and the Spirit’s

Berry understands the Trinity from a model based on cosmology and the functioning of the universe, the model of differentiation, inner articulation and communion. He explains that the Father is the emergent principle; the Son, the inner articulation of things; and the Holy Spirit, the bonding force of things.<sup>43</sup> The core of the Christian religion is not belief, but experience of the Trinitarian communion in the exploration of God in history.<sup>44</sup>

Christ is the fullness of the revelation of the one and triune God in the emergent universe. In his life, death and rising again, the cosmos reaches the fullness of its journey of self-transcendence toward the one and triune God. His words and deeds disclose the ultimate destiny of the human race and of the cosmos and the true meaning of our life in God. To live the more abundant life in this convergent universe is to live in openness to the Cosmic Christ who gives us the power to transform this world through love and build a society of relatedness and communion, everyone living a life of awe and wonder, of gratitude and humility, everyone a conscious center of matter and energy. The trinitarian indwelling in us is an invitation to disclose the divine in our own journey to become more than ourselves, overcoming otherness in solidarity in the search for truth, beauty and goodness in the faith-community and expanding our consciousness. Faith in the Cosmic Christ as the goal of this convergent universe connects spirituality with social justice, with prophetic dialogue with others and with promoting the integrity of creation. We are called, according to Teilhard de Chardin, to “christify” the world by our actions, to build the earth. Faith in the Cosmic Christ as Alpha and Omega can connect us with deeper sources of energy as we navigate the uncertainty of the future and can help transform the fearsome experiences of transition into experiences of empowerment and compassion.

---

making it an experienced reality. In other words, St. Paul’s understanding of God was Trinitarian. See “Paul and the Trinity: The experience of Christ and the Spirit for Paul’s Understanding of God,” in: Davis/Kendall/O’Collins (eds.), *The Trinity*.

<sup>43</sup> See Thomas Berry, *Befriending the Earth: A Theology of Reconciliation between Humans and the Earth*, with Thomas Clarke, New London, CT: Twenty-Third Publications 1991, 15.

<sup>44</sup> Adam Frank claims that scientists also experience the world as numinous, and this experience can be a doorway to the sacred. See *The Constant Fire: Beyond the Science vs. Religion Debate*, Berkeley, CA: University of California Press 2009. See also Cynthia Chrysdale/Neil Ormerod, *Creator God, Evolving World*, New York: Fortress Press 2013, for more discussions about the compatibility of cosmological and evolutionary science and belief in God as Creator.



The Trinity is the Mystery that grounds the fact that there is a universe at all, a universe where life can arise. The triune God is a community of loving relationships that created the universe out of the overflow of love. The Resurrection is a symbol of how new life, new opportunities and new possibilities came out of chaos and destruction in the history of the cosmos. Giant stars explode and give birth to other stars and planets over and over again. Every atom in our bodies was forged in the inner core of stars which exploded billions of years ago. Without the dying of stars and galaxies, there would be no planets and no life. Thus, pain, suffering, disillusionment and even death are not the end of the story of the universe. Trinitarian faith grounds the hope that compassion will finally triumph over cruelty because this evolving universe turns chaos and catastrophes into new opportunities. Faith in the Trinity when taken seriously can be illuminating and transformative. It can lead us to a fuller life and inspire us to better serve one another and the whole planet. In *The God of Evolution*, Denis Edwards tried to show that in light of Christian faith in the triune God, everything can be seen as an embodiment of the divine—expressed in the nature of God as “Trinity.” Everything in the universe is interconnected, and the underlying core of the matter is the Absolute—the Father, Son and Holy Spirit.<sup>45</sup>

In the evolving universe, our calling is to be *cooperatores veritatis*, cooperators of the truth. This motto was used in Cardinal Ratzinger’s coat of arms, when he was Archbishop of Munich. *Cooperatores Veritatis* comes from the Third Epistle of St. John, verse 8, “Co-Workers of the Truth.” The crucial element in the unfathomable expression “co-workers of the truth” is the relationship between truth and love. According to Pope Benedict, we encounter in this brief phrase the interweaving of truth and love, of personal faith and the catholicity of the church, as well as the interrelationship of ministers and faithful who, in their different ways, share together the burden and the grace of the gospel and point to the Nazarene who proclaimed himself as the Truth (John 14:6). For the simple reason that it comes from the truth and leads to the truth, the love that is the goal of faith is, in a very real sense, the hope and redemption of the human race and all of creation. We discover the power embedded in the truth so that we can create the world we want based on justice and the common good. The Holy Spirit, the Spirit of Truth, is the force that is driving everything towards integration, synthesis, and sublimation—the whole universe is converging towards integral wholeness.

---

<sup>45</sup> New York: Paulist Press 1999.

The triune God as mutually self-giving love of three divine persons is a transcendent dance of energy and beauty at the heart of reality. This dynamic, pulsating activity in the Trinity is likened to a dancing together—*perichoresis*. In the constant movement of self-giving and self-appropriation, each Person of the Trinity envelops and encircles the other two, pouring love, joy and delight into them in a dynamic pulsating interaction of love and delight. The convergent cosmos is also the interdependence of living systems and cosmic processes which operates like the flow of magnificently choreographed rhythms. If human beings are created in the image and likeness of the triune God, being human means doing what the Father, Son and Spirit have been doing from all eternity—taking part in the eternal dance of self-giving, self-appropriation and self-transcendence of the Trinity, healing the world and opening it up to the riches of all possibilities. Evolution is the way the triune God is revealed to the world. God is revealed as a dynamic process of relatedness in a convergent universe, and the dynamic impulse of the cosmic movement toward ultimate fulfillment. Change is at the heart of the understanding of God and God must be found in the heart of change because the very essence of God is relational. The Persons in the Trinity exist only in and for the other.

The Divine Word is disclosed in the Incarnation as the ultimate horizon, the goal toward which the convergent universe is moving. God is personally related with every creature through the Word. The convergent universe is a disclosure of the triune God, everything in it is *vestigium trinitatis*, a revelation of God's identity. Each and every object in the universe, even the smallest and the most insignificant, is of infinite value as the vestige of the one and triune God. In the evolving cosmos, each object is defined by what it is in relation to the whole. Contemplative consciousness today has to discover and experience the Word in an evolving cosmos. The universe evolves precisely because there is a power innate in every created being that enables it to go beyond itself and become more than it was. This inner dynamism, this innate impulse towards what is more is grounded in the Divine Word as the innermost center of the cosmos, the very heart of evolutionary change, because "everything was made through him and without him was made nothing that has been made" (John 1:1). The emergent universe is open to novelty, it has the capacity to leap forward because the Cosmic Christ is the image of the invisible God (Eph 1:23) who energizes it in love and draws it forward to ultimate fulfillment. The Eucharist is the celebration of belonging to the whole universe, a celebration of our ultimate belonging to God through the

Cosmic Christ in the Spirit of life, a saying “Yes!” to life in its fullness.<sup>46</sup>

In light of this fundamental connectedness of the cosmos where matter is now understood to be a pattern in an interconnected web of relations, both believer and unbeliever ought to embrace a whole-systems life philosophy forming out of interacting connections. On this we should base ethical foundations we can all agree on. We are hard-wired by evolution to ask questions like: Why is human life precious? What is the purpose of the universe? Where can we find meaning and value? We have to acknowledge that there is an order to the dynamism of the universe, that existence is not merely an accident but rather the dancing out of dynamic rational principles in order to discern the basic outlines of our life’s purpose—to act rightly in light of these principles so as to promote permanent values like truth, beauty, and love while limiting, to the extent possible, the damage done by their opposites. We have to take risks, to get involved, work with others as we run to the edge of the world and beyond to bring forth the fullness of love as God’s promise (Rom 8:19-20), since love is the propelling force and the ultimate destiny of our cosmic journey. Every being, according to Raymond Pannikar, is a manifestation of the christic adventure of the whole of reality on its way to the infinite mystery.<sup>47</sup>

The convergent universe is the constant flow of energy going through an infinite variety of patterns, which merge into one another in a dynamic cosmic dance. The idea of rhythm and dance emerges naturally when one tries to imagine the discharge of forces going through the patterns that make up the rhythmic choreography of energy in dense and subtle forms. The whole universe is woven into human beings and human beings into it in this dynamic cosmic dance, and so, faith in the Divine Word bolsters belief in the goodness

---

<sup>46</sup> See Brendan Purcell, *Beyond the Big Bang: The Eucharist at the Heart of Cosmic, Evolutionary and Human History*, in: *50<sup>th</sup> International Eucharistic Congress: Proceedings of the International Symposium of Theology*, Dublin: Veritas 2013, 250-265.

<sup>47</sup> *Christophany: The Fullness of Man*, Maryknoll, NY: Orbis Books 2004, 146. Christianity has shifted from Europe to the Third World, and many theologians, like Panikkar and Gustavo Gutiérrez, are asking traditional theological questions within their thought-patterns and context. George Wiegel however seems to equate Christian thought wholly with the West: “A West that does not take religious ideas seriously as a dynamic force in the world’s unfolding history is a West that will have disarmed itself, conceptually and imaginatively, in the midst of war.” See *Faith, Reason, and the War against Jihadism: A Call to Action*, New York: Doubleday 2007, 16.

of human nature and in hope for the future of all sentient beings. The message of the Risen Christ as the first born from the dead therefore is both oriented towards future hope, while at the same time grounded in responsible action in the present. It can link more forcefully our commitment to justice and our duties to the environment.

We have to continually identify in the light of faith in Christ as Alpha and Omega the fundamental habits which are decisive in the formation of our spiritual and ecological consciousness, and which continue to shape the way we understand our place in the convergent universe. This faith should help us re-think and maintain the disciplines necessary to sustain a faith capable of being an alternative to the world of greed and indifference, to challenge the reigning ethos that sustains the global political economy and culture—the dominant consciousness that views reality in terms of separateness, dualism, and even hierarchy, to a new awareness of ourselves as interdependent partners. We need to imagine and live into new ways of being and doing in this convergent universe as the revelation of God's glory: "The heavens declare the glory of God, the skies proclaim the work of his hands. Day after day they pour forth speech; night after night they display knowledge" (Ps 19:1-2).

Religion arises out of our poetic and creative faculties, as we fashion stories of hope against death and of joy that will never end. The Catholic sacramental imagination sees all things—sunrise, starlight, galaxies and black holes, supernovae and symphonies, quarks and quartets, a friend's face and a grandmother's touch, the smile of a friend and a lover's caress—as metaphors for the divine. Faith in the Word as both Alpha and Omega in an emergent universe means our spiritual journey is one of learning to live within an interconnected and interdependent cosmos that is continually emerging as a unified whole while at the same time evolving ever more diverse expressions of its aliveness which will culminate in the new heaven and the new earth. The convergent perspective provides a new way of looking at the universe and talking about faith in the Cosmic Christ to help build a global culture of integrity, empathy and creativity and live out solidarity as a way of life. In order to change the world, we need to understand it. We cannot understand it apart from its dynamism and self-transcendence. In light of the Word taking on flesh, the convergent universe is God's love rendered in soil, water, atmosphere, and living beings. It is a gift we must, by all rational, emotional, ethical, and spiritual measures, protect and preserve for future generations.

Christians believe in salvation by a self-giving God whom love has driven to become a human being and who loves human beings irrevocably.

cably, precisely because this God is one and triune. Something is wrong with us, and we have to find our way home. We are lost and fragmented. The death and rising of Jesus is the saving power of the triune God made manifest in human history. This self-emptying of a God vulnerable to human pain as shown by the Cross on Calvary is possible only because the *Abba* (Father) is truly beginning and end for us. This is possible only because there is a Divine Word who has entered history for our sake and died for our sinfulness. This is possible only because there is the Spirit of love poured out among us. All this is possible only because there is a God who is triune, in whom to be, to know and to love coincide. And so faith in the Trinity distills our hope for the convergent cosmos, hope for communion and transformation in a new heaven and a new earth as its ultimate destiny.

To be alive in this convergent universe should be a continuing adventure. We are now at a crossroads, a turning point fraught with the danger of extinction but also brimming with possibility for planetary healing. In this evolving cosmos, in this dance of life, how does faith in the Cosmic Christ, the Divine Word, guide SVD missionaries in their ministry more by insight, intuition, wisdom, and transcendent intelligence so that space can be given for more and better outcomes of the cosmic convergence to reveal the hidden potential of things?

#### ABSTRACTS

In diesem Beitrag, der Teil einer umfassenderen Reflexion ist, stellt sich der Autor der Diskussion über Wissenschaft und Glaube und den Kontroversen um die Möglichkeit eines Diskurses über Gott und die Schöpfung durch Wissenschaftler in ihrem Fachgebiet und um ein gläubiges und theologisches Verständnis wissenschaftlicher Erkenntnisse. Der Mensch wird als Beziehungswesen gesehen, das sowohl zur Materie der kosmischen Evolution gehört als auch fähig ist, darüber hinaus weiter zu fragen. Verschiedene Religionen und Theologien bieten ihre Perspektiven auf den Platz der menschlichen Person innerhalb des Kosmos an.

En esta contribución, que forma parte de una reflexión más amplia, el autor entra en la discusión sobre la ciencia y la fe y en las controversias en torno a la posibilidad de un discurso sobre Dios y la creación por parte de los científicos en su campo, y de una comprensión creyente y teológica de perspectivas científicas. La persona humana es vista como un ser relacional que pertenece a la materia de la evolución cósmica y es capaz de preguntar más allá. Diferentes religiones y teologías ofrecen sus perspectivas sobre el lugar de la persona humana dentro del cosmos.

Dans cette contribution qui fait partie d'une réflexion plus large, l'auteur se lance dans une discussion sur la science et la foi et les controverses autour de la possibilité d'un discours sur Dieu et la création par les scientifiques dans leur champ propre, et d'une compréhension théologique fidèle des dé-

couvertes scientifiques. Il considère la personne humaine comme être relationnel appartenant aussi bien au domaine de l'évolution cosmique que capable d'aller voir plus loin. Les différentes religions et théologies offrent leurs perspectives propres sur la place de la personne humaine dans le cosmos.