

Cosmodern Philosophy: Transdisciplinary Reflections on Nature, Science, and Religion

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Abstract. This article's transdisciplinary reflections aim to study the relationship between nature, science, and religion. They address complex phenomena of our ontological reality from a perspective in which science and religion merge to give way to the *cosmodern* philosophy. As result, a global ethics emerges to reinvent the sacred as the product of integration between religious and scientific worldviews. It also describes an *interreligious* and *intra-religious* dialogue where nature and the cosmos constitute the meeting between scientific and religious knowledge. In sum, the *cosmodern* approach argues that learning to co-evolve consciously requires the development of an ecology of knowledge, where outer physical knowledge and inner spiritual wisdom converge and complement each other on different levels of our experience.

Keywords: Cosmodernity; Education; Nature; Science; Spirituality; Epistemology.

[esp] Filosofía Cosmoderna: Reflexiones Transdisciplinarias sobre Naturaleza, Ciencia y Religión

Resumen. Las reflexiones transdisciplinarias de este artículo estudian la relación entre naturaleza, ciencia y religión. Se dirigen a fenómenos complejos de nuestra realidad ontológica desde una perspectiva donde ciencia y religión se funden para dar paso a la filosofía *cosmoderna*. Como resultado, surge una ética global para reinventar lo sagrado como producto de la integración entre cosmovisiones religiosas y científicas. También se describe un diálogo *interreligioso* e *intra-religioso* donde la naturaleza y el cosmos constituyen el encuentro entre conocimiento científico y religioso. En resumen, el enfoque *cosmoderno* sostiene que aprender a co-evolucionar conscientemente requiere el desarrollo de una ecología de saberes, donde el conocimiento físico externo y la sabiduría espiritual interna convergen y se complementan en diferentes niveles de nuestra experiencia.

Palabras clave: Cosmodernidad; Educación; Naturaleza; Ciencia; Espiritualidad; Epistemología.

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1. Introduction

Though art and spirituality played an important, even pre-eminent role in archaic and prehistoric societies, a new form of epistemic organization, called modern science, has transformed human life on Earth in the last several centuries. From an anthropological point of view, science and religion are historical, cultural constructions that consist of the interpretation of terrestrial and cosmic reality. Scientific and religious forms of thought comprise a multitude of paradigmatic epistemic pictures. The collective imaginaries of cultures and civilizations have been nourished by these epistemological paradigms that they have constructed throughout human history².

This article takes a phenomenological approach to the relationship between science and religion. When comparing science and religion as binary, dichotomous and exclusive forms of thought, they appear to manifest several logical contradictions and thematic oppositions: external vs. inner knowledge, objectivity vs. subjectivity, reason vs. faith, materiality vs. idealism, method vs. revelation, etc. But from this essay's phenomenological perspective—that is, when one observes our reality with an integrative impulse that seeks to coordinate, associate and complement—both epistemic paradigms share a common purpose. They provide means of apprehending and interpreting the ontological structure of reality in which individuals are circumscribed, that is, Nature and the Universe: also known as the *sacred* by ancestral worldviews of indigenous peoples of Andean Region.

Sumak Kawsay (usually translated as “Good Living”) is a philosophical and political worldview of Kiwicha indigenous peoples of Andean Region, where human beings are interconnected with our planet Earth and the whole cosmos. This ancestral worldview understands humankind as an integral and interdependent part of their social and natural environment³. For this reason, this paper argues that nature and the cosmos are the meta-point of encounter between scientific and religious knowledge⁴. When one closely scrutinizes the complexities of ontological reality, one observes how scientific and religious ideas complement each other on different levels of logic and perception. For example, following on representations of the universe and nature developed by Baruch Spinoza⁵ and Albert Einstein⁶, astrophysicist Hubert Reeves⁷ argues that the existence of God is manifested through physical laws. From this perspective, our behavior identifies the human being as the most insane species of all the millions of species that exist, since he adores an invisible God and destroys visible nature without perceiving that the Nature that he is killing is that very Invisible God, worshiped by different religions in various ways.

This is a scientific vision that includes the philosophical and theological heritage or the pantheism of the previous centuries. Faced with the problem of climate change, Reeves⁸ asks: “Is it in the nature of man to manufacture, as quickly and efficiently as possible, the weapons of his own self-destruction? And if so, will it be possible for us to escape our nature?” Although there is no single answer to these questions,

² Collado 2016a, 65.

³ Acosta 2013.

⁴ Collado 2016b, 115.

⁵ *Cfr.* Spinoza 1985.

⁶ *Cfr.* Einstein 2011.

⁷ *Cfr.* Reeves 1988.

⁸ Reeves 1988, 47.

many scientists now consider the geologic era of the Holocene to have been replaced by the Anthropocene, a new geological epoch distinct from the Quaternary period⁹. That nomenclature aims to acknowledge the devastating impact of the human being on natural processes: our destructive capacity now operates on geologic scales. The solutions to this problem must lie within our collective action, since the unbridled consumption of natural resources constitutes the primary socio-ecological footprint of today's globalized world. The processes that define and produce one notion of the world—the 'globe'—therefore destroy another, as in Pachamama¹⁰, the conception of Mother-Earth held by indigenous peoples of the Andes.

It is up to us to alter our course of self-destruction. For this reason, the future survival of human life relies on reaching a state of deeper unity with nature, developing a higher level of integrated consciousness that recognizes the ontological essence of life as a *continuum*. This implies understanding the universe itself as "an infinite ocean of energy where things unfold to form space, time and matter," according to the physicist David Bohm¹¹. From this earthly and cosmic vision, a new civilizational phase might emerge with general acknowledgment of interconnectivity, interdependence and *continuum* as our primary ontological states. But learning to consciously co-evolve in order to reestablish our connections with nature requires the development of an ecology of knowledge, where the external knowledge and inner wisdom of our human condition converge—that is, where science and religion merge to give way to the cosmodern paradigm¹².

2. The Paradigm of Cosmodernity: Integrating Science and Religion

The notion of Cosmodernity defended in this article differs from Modernity and Postmodernity in its goal to achieve sustainable human development using a biomimetic approach that studies, emulates and perfects the co-evolutionary strategies of ecosystems in the Big History. The concept 'Big History' denotes a transdisciplinary reorganization of knowledge that integrates and unifies the history of the universe, the history of planet Earth, the history of life and the history of the human being. It is formed from the international scientific consensus amongst astronomers, cosmologists, physicists, geologists, biologists, chemists, anthropologists, paleontologists, archeologists, ecologists, historians, geographers, demographers, etc. It is a term coined by David Christian¹³ and theoretically elaborated by Fred Spier¹⁴ that seeks to situate the human being in the cosmos. Obviously, this integral vision also exists in multiple spiritual beliefs and ancestral worldviews of indigenous peoples—'cosmodernity' aims to develop a critical and inter-epistemological dialogue between these scientific and non-scientific (or spiritual) forms of thought. Thus, the notion of nature constitutes the meta-point of encounter between those various epistemes.

In the paradigm of cosmodernity, science and religion are no longer necessarily opposed, as in Modernity and Postmodernity, but are united by nature, which acts as

⁹ Cfr. Steffen, Crutzen & McNeill, 2007.

¹⁰ Cfr. Collado 2016c.

¹¹ Bohm 1992, 182.

¹² Cfr. Collado 2016b.

¹³ Cfr. Christian 2010.

¹⁴ Cfr. Spier 2011.

a model, a measure and a mentor¹⁵. Science and religion represent, in effect, the two complementary ways to reach an integral cosmopolitan consciousness. The former situates us rationally as citizens of a small planet from a peripheral solar system to the Milky Way; the second path promotes the spiritual development of a cosmopolitan consciousness that allows us to psychosomatically feel the interdependence of cosmic, biological, ecological and anthropological phenomena that transcend us as a distinguished species of coevolution in the Big History¹⁶. Figure 1 shows how an ecological and cosmological view of life in nature allows us to coherently integrate and reconcile science and spirituality, overcoming the Modern dichotomy described as the ‘Logic of the Included Third’ by the physicist and philosopher Stephane Lupasco¹⁷.

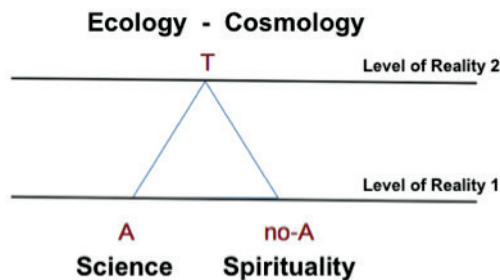


Figure 1. *Source:* Author’s illustration. Ecology and cosmology act as the ‘included third’ between science and spirituality to form the cosmopolitan vision.

As shown in figure 1, the Logic of the Included Third allows us to conceive oppositions—like between antagonistic phenomena “A” and “non-A”—at all levels of reality and experience by positing the presence of a “T state.” This physical-epistemological logic breaks with the notion of a one-dimensional reality, for which “A” and “non-A” are deemed contradictory and mutually exclusive. “*Tertium non datur*” and “*principium tertii exclusion*” are the Aristotelian formulations of the *principle of non - contradiction*. That exclusive and reductionist principle underlies classical binary logic and has dominated the structure of Western human thought for more than two millennia. It remains embedded in the epistemic outlook of most 21st century humans.

Based on the philosophical and epistemological postulates of phenomenology presented by quantum physics, Lupasco¹⁸ breaks with the imaginary of a one-dimensional reality, where two adjacent levels of reality are linked by the Logic of the Included Third. Just as different physical laws govern every ontological level of Nature (e.g. macro, meso, and micro), human perception can apprehend reality in various, incommensurable ways. While each quantum entity has the wave-particle duality - simultaneously manifesting the classical behaviors of “wave” (A) and “particle”

¹⁵ *Cfr.* Collado 2017b.

¹⁶ *Cfr.* Collado 2016d.

¹⁷ *Cfr.* Lupasco 1994.

¹⁸ *Cfr.* Lupasco 1994.

(non-A) - the “T state” acts as a *quanta* that integrates different elements and phenomena. This means that different logics act together in the same space and time, despite their contradictions. According to Morin and Kern (2005), complex thinking employs these principles to defend the notion of a two-dimensional reality that integrates science and religion—it constitutes the Included Third that unifies and complements them. In this cosmmodern vision, nature and the cosmos give coherence to the different historical and epistemological constructions of human history in order to explain our ontological reality¹⁹.

In this sense, the notion of Pachamama is a central example to illustrate the importance to unify scientific knowledge and ancestral spiritual wisdom. While biological and ecological scientific approach makes a distinction between biotic and abiotic components of all ecosystems, ancestral indigenous wisdom proclaims that Fire, Earth, Air, and Water (and even stones, mountains, and other natural phenomena) are *alive*. Therefore, Cosmodernity can be understood as an evolutionary phase in human history, in which our present earthly scenario of poverty, violence, social exclusion, and environmental degradation force us to adopt a high level of consciousness. This awareness allows mankind to develop his cognitive and affective potential, achieving a spiritual, ecological and cosmological consciousness that interconnects him with the world—which comes to resemble, in this regard, the Andean peoples’ notion of the ‘Pachamama’—in order to direct our society’s current trajectory away from its impending collapse. It is a transcendental metamorphosis that produces the *self-birth* of mankind, from which emerges a new notion of humanity capable of transgressing our unsustainable epistemic paradigm. The Paradigm of Cosmodernity refers to this form of co-evolutionary self-knowledge of the human race on Earth²⁰.

The origins of this cosmmodern paradigm date to the middle of the twentieth century, a historical period in which three irreversible events occurred: 1) the creation of nuclear technology capable of total destruction, 2) humans began to explore space, suggesting that we might eventually inhabit other planets, and (3) the United Nations was founded as an intergovernmental institution that aimed to achieve a global culture of peace. Since then, the process of globalization has allowed the current network society²¹ to attain extraordinary levels of technological development, though at the expense of exploiting human beings and the environment. As has happened with the Internet in recent years, quantum computers, nanotechnology, biotechnology, glasses and contact lenses with access to the Internet, genetic DNA mutation, artificial intelligence, robotics, space travel and “discovery” of extraterrestrial intelligent life on other planets, among other “techno-cultural revolutions,” will radically change our habits and relationships in a short period of time.

This notion of the “cosmmodern paradigm” is in harmony with the idea of *cosmodernity* created by Nicolescu²², and the *cosmodernism* of Christian Moraru²³. Both authors present an important bioethical foundation of human responsibility, an epistemological call to overcome a binary and reductionist conception of knowledge, and both depict a strong, interdependent relationship between the human being and the cosmos. My research stands as an epistemic complement that is within, between

¹⁹ Cfr. Collado 2017a.

²⁰ Cfr. Collado 2016b.

²¹ Cfr. Castells 2000.

²² Cfr. Nicolescu 1994 y 2014.

²³ Cfr. Moraru 2011.

and beyond the positions of these authors. Not only do I identify the cosmic processes interconnected with the human condition, but I also seek to bio-mimetically apply the co-evolutionary strategies of natural ecosystems in the Big History to solve contemporary socio-ecological problems.

In other words, implementing this *eco-literate* vision means learning from ecosystems, since they represent true sustainable and regenerative communities of plants, animals, and microorganisms. While the notion of sustainable development is focused in minimizing the negative human impact on our planet Earth, the notion of regenerative development is focused in maximizing the positive human impact²⁴. According to physicist Fritjot Capra²⁵: “being ecologically literate, being *eco-literate* means understanding the organizational principles of ecological communities (ecosystems) and using those principles to create sustainable human communities.” This eco-literacy vision should be implemented in all educational institutions, but also in the field of economics, politics, and business. This is the very meaning to face the challenges of the Anthropocene from a cosmodern vision. In this sense, Nicolescu proposed a new worldview that completely rethinks the role of the cosmos. In his book titled *Theorems Poétiques* published in 1994, Nicolescu conceived Cosmodernity as an immense cosmic matrix that we occupy as a single and multiple realities simultaneously. In Nicolescu’s words:

Quantum discontinuity, indeterminism, constructive randomness, quantum non-separability, ‘bootstrap’ physics, unification of all physical interactions, supplemental dimensions of space, the Big Bang, the anthropic principle—other poems of that gigantic Mahabharata Modern that is represented to our blind eyes. I dream of a great stage manager who had the courage to make Max Planck the central character of the Mahabharata of cosmodernity²⁶.

By drawing a parallel between the extensive epic-mythological text of ancient Mahabharata India and the multiple phenomena of quantum mechanics, Nicolescu construes Cosmodernity as a reconciliation of disparate forms of thought and the replacement of a binary worldview with a ternary one. While Modernity is characterized by the binary separation between subject and object, Cosmodernity manages to displace binary thought, which presently serves as our primary mental scheme and the underlying logic of our nuclear order. For Nicolescu²⁷, the idea of “Cosmodernity” essentially means that every (existing) entity in the universe is defined by its relation to all other entities.” Following the conceptual foundations of quantum physics, contemporary science replaces the autonomous object with the relation, interaction and interconnection of natural phenomena. This perceptual metamorphosis from a mechanistic universe to a living universe establishes a new philosophy of nature in Cosmodernity.

For this reason, Nicolescu²⁸ defines Cosmodernity as “a new era founded on a new vision of contemporary interactions between science, culture, spirituality, religion and society. The old idea of the cosmos in which we are active participants, is

²⁴ Pauli 2015.

²⁵ Capra 1998, 307.

²⁶ Nicolescu 1994, 86.

²⁷ Nicolescu 2014, 212.

²⁸ Nicolescu 2014, 214.

resuscitated.” This is a basic characteristic of Cosmodernity, and it entails understanding the universe as a whole, that is, as an extensive cosmic matrix where everything is in perpetual motion and structuring itself energetically. “Respect for Nature, conceived as the body of God, implies respect for the intelligence hidden in the laws of Nature”²⁹. Therefore, the study of nature and the study of the human race complement each other, since by studying the laws of the universe mankind manages to understand its own condition, and vice-versa. For this reason, Nicolescu thinks that unifying the levels of reality through a transdisciplinary theory can reintegrate the more than 8,530 disciplines identified by Klein³⁰, which fragment knowledge and therefore separate the scientific and religious dimensions of the human being.

On the other hand, the notion of a cosmopolitan paradigm presented in this article is also in harmony with the arguments that Christian Moraru³¹ develops in his book *Cosmodernism: American Narrative, Late Globalization, and the New Cultural Imaginary*. In this work, Moraru analyzes narratives of American culture after the fall of the Berlin Wall and the end of the Cold War in 1989. He observes that for the first time since World War II, critics are working toward the reestablishment of borders in the present. In this sense, Moraru provides the following, multifaceted definition of cosmopolitanism:

Cosmodernism is primarily (a) an *imaginary mode* of mapping the world today as a cultural geography of relatedness; (b) for the same reason, a *protocol of formation of subjectivity*; (c) an *ethical imperative* for both the present and the future; and (d) a *critical algorithm* to decipher and assemble a post-1989 range of narratives for the theoretical imagination, in order to develop a reasonably coherent model and, finally, to face the future. If the cosmopolitans read the world in terms of interconnections between themselves and the surrounding world, this algorithm helps me to read their readings and thus become a cosmopolitan voyeur, aware of their searches for a new geometry of “we”³².

In this way, Moraru characterizes cosmopolitanism as a geometrical structure of co-presence, and therefore distinguishes cosmopolitanism from modernism and post-modernism by its interrelation of cultures and subjects. Inspired by Levinas’s ethical individuality of thought, Moraru develops a comparison between identity studies, postmodern intertextuality, and context-oriented analyses of academic globalization, noting that “identity is, for the cosmopolitan mind, the reason for being and the vehicle for a new union, for a solidarity beyond the political, ethnic, racial, religious and other borders.”³³ In analyzing the ramifications of this “ethics of human proximity” in the humanities during these last decades of the globalized era, Moraru identifies the following path forward for the cosmopolitan imaginary:

These axes (a) thematize the cosmopolitan as a way of thinking about the world and its culture, about cultural perception, self-perception and identity; (B) orient the vanguard of communicational intersubjectivity, the dynamic dimension of cos-

²⁹ Nicolescu 2014, 24.

³⁰ Cfr. Klein 1994.

³¹ Cfr. Moraru 2011.

³² Moraru 2011, 5s.

³³ Moraru 2011, 5.

modernism; and (c) articulates the cosmodern imaginary in five relation-regimes, or sub-imaginaries: the “idiomatic”, the “onomastic”, “translatibility”, the “legible” and the “metabolic”. These are the focuses of this five-part volume³⁴.

From this cultural imaginary, Moraru says the cosmodern rationality is relational, overcoming modern rationality characterized by “de-linking each other’s presence in the world and, in the same movement, the world itself.”³⁵ Under the powerful influence of Levinas’ ethical thought, Moraru³⁶ suggests that “cosmodernism is best understood as an ethical rather than a ‘technical’ project”, and notes that it is a project with “considerable support in our way of thinking, not only regarding the subject, but also discourse, history, culture, community, heritage and tradition”³⁷.

I approach the planetary challenge of achieving the United Nations’ Sustainable Development Goals (SDGs) by the year 2030 according to this line of cosmodern thought, as global citizenship has an “infinite bioethical” responsibility to safeguard the millions of terrestrial life forms we know. Cosmodernity emerges to study the complexity of relations between the dynamical systems that make up life (human beings, animals, plants, etc.) within the environmental context that houses the ideal conditions for their coevolution: Homeland-Earth³⁸. The *cosmic miracle of the emergence of life* is a transdisciplinary mystery that we must urgently understand in order to achieve a sustainable and regenerative development³⁹. For this reason, it is necessary to create a space for the epistemological convergence of science and religion, to learn to co-evolve with the ecosystems of the Pachamama, also known as the *sacred* in the ancient worldviews of indigenous peoples.

3. Reinventing the Sacred from the Sciences of Complexity

During the last decades, scientists and spiritual leaders have shared an intensifying dialogue about the ontological reality of nature and the universe⁴⁰. This dialogue found a meeting point in the *Bootstrap* particle theory elaborated by the theoretical physicist Geoffrey Chew during the 1960s in his attempts to unify quantum mechanics with the theory of the relativity. His theoretical model was a great rupture in the West’s traditional scientific approach, and aimed to show that nature cannot be understood by its reduction of fundamental entities like atom, subatomic particle, quarks, etc. The traditional mechanistic conception of nature and the universe was replaced by its imagination as a vast network of interrelated dynamic events in an indivisible whole, where each particle helps to generate other particles that are generated by these simultaneously.

Many Eastern spiritual worldviews share the *bootstrap* model’s general theoretical position. A good example is the Mahayana Buddhist philosophy, which emerged in India during the first century AD and spread to other Asian countries such as

³⁴ Moraru 2011, 8.

³⁵ Moraru 2011, 29.

³⁶ Moraru 2011, 316.

³⁷ Moraru 2011, 316.

³⁸ Morin & Kern, 2005.

³⁹ *Cfr.* Collado, 2017c.

⁴⁰ *Cfr.* Ramos, 2016.

Bangladesh, Bhutan, China, Korea, Japan, Malaysia, Mongolia, Nepal, Singapore, Sri Lanka, Tibet, Taiwan and Vietnam. Through its metaphor of the *Indra* network, illustrated in the *Avatamsaka Sutra*, this spiritual worldview recognizes a cosmic web of events encompassing the entire universe. This understanding of reality cannot be attained intellectually, however, but through meditation—it is a barely perceptible *insight* by the enlightened mind⁴¹. The scientific and the spiritual dimensions are thus two spheres integrated in this paradigm of cosmopolitanism, since both help us to become aware that the present world in which we live is the image and likeness of our interconnected individuality: the fruit of multiple, dynamic, reciprocal relations between things.

At present, there appears to be a substantial conceptual difference between the words “religion” and “spirituality.” While their definitions are a matter of controversy among scholars, both converge on the *sacred*. As the biomimetic thinker Fritjof Capra⁴² points out, “the original meaning of ‘spirit’ in many ancient philosophical and religious traditions, both in the West and in the East, is the breath of life. The Latin word *spiritus*, the Greek *psyche* and the Sanskrit *atman* each mean ‘breath’ or ‘breathing’”. This notion also appears in Chinese thought with the word *shen* (神), and in the Islamic world with the *fitrah* (فطرة). The transcultural educator Edward Brantmeier⁴³ presents another, more illustrative notion of spirituality: “spirituality can be an integral force inherent in vibrant peace and life itself. As a process and force, spirituality is composed of intuition, a sense of sacredness, knowledge, interconnectivity and interdependence.” For this reason, spirituality is a transcultural phenomenon in all historical societies.

In turn, the etymological origin of the word “religion” comes from the Latin *religio*, composed of the prefix *re-* (indicating current); the verb *ligare* linked to Indo-European root *leig-* (meaning link, join, connect), and the suffix *-ion* (denoting action and effect). That is, the term “religion” means “action and effect of intensely binding,” without any god or gods being involved. This also suggests, according to the philosopher and historian of religion Mircea Eliade⁴⁴, that “The sacred does not imply belief in God, gods or spirits. It is ... the experience of a reality and the origin of the consciousness of existence in the world.” This religious and spiritual experience of being *reattached* and in connection with the *sacred* world of nature has been evolving historically.

Although Modernity has relegated it to the background, religion has been constituted as a set of beliefs and dogmas around interpretive differences regarding the levels of reality and individuality. That is to say, the human being has delineated and defined diverse epistemic systems as a consequence of their interpretations of things both sacred and profane. Accordingly, the vast majority of religions continue to concern themselves with the spiritual world, but from unique perspectives that are often incompatible with those of other religions created in different cultural and historical conditions. This diversity also leads, at times, to the emergence of phenomena such as extremism or religious fundamentalism.

⁴¹ *Cfr.* Bateson 2000.

⁴² Capra 2011, 14s.

⁴³ Brantmeier 2010, 16.

⁴⁴ *Apud* Nicolescu 2008, 137.

Historically speaking, religions dictate moral norms for individual and social behavior through rituals of prayer and worship, and organize patterns of behavior by providing frameworks of veneration, worship, and fear of the god or gods in which the society boundary is paradigmatically circumscribed. For this reason, the philosopher and economist Karl Marx⁴⁵ considers that religion is the “opium” of the people, since it is a form of social alienation that presents Heaven as a place of understanding and justice and in doing so justifies and legitimizes the present state of things in the mundane world. For a large portion of the humans today, the concept of religion includes an imaginary that, in addition to defending certain economic and political interests, also produces fear: in some cases, by threatening people with eternal hell and causing them a sense of sin and guilt. For many agnostic and atheistic people, religion is seen as a set of dogmatic rules outlined in a sacred book, so it becomes an important site for division and conflict amongst the human species itself, both at an inter- and intra-religious level.

Throughout the history of mankind, religion has constituted a risk factor for all conflict, especially in the Middle East. It is an area of great instability due to a complex set of some ethnic, racial, political and economic conditions that arise from the coexistence of the three largest monotheistic religions in the world: Judaism, Christianity and Islam. Inter-religious conflict likewise plagues countries like Nigeria (Christians and Muslims), Israel (Jews and Muslims), Thailand (Buddhists and Muslims), Sudan (Muslims and non-Muslims), Afghanistan (various fundamentalist or non-fundamentalist Muslim sects), and Bosnia-Kosovo (Catholics, Muslims and Orthodox Christians). At the same time, intra-religious conflicts occur, with greatest visibility amongst Muslims, and especially between Shiites and Sunnis in war-torn countries like Syria, Lebanon or Iraq. In these countries, the so-called “Islamic State” has emerged and threatened the world through terrorism practiced by its adherents in a “holy war” against the West.

All these confrontations seem to point out that something is wrong with how we practice spirituality. Instead of cultivating and investigating both the mind and our relationship to the sacred, we have preferred to maintain dogmatic beliefs whose propagation we confuse with religion and spiritual growth. All liberating education must oppose or transcend these epistemic paradigms to promote a curious, restless mind that aims to inquire and discover for itself rather than reproduce and imitate dogmatic interpretations of a certain “sacred book” written thousands of years ago.

In this line of thought, the Indian Theosophist Krishna⁴⁶ argues that, “Jesus Christ did not become Christ through a church or a belief, but through his own contemplation and his own quest for truth. Buddha attained enlightenment, understanding, through his own contemplation, of his own inquiries. We must understand that, and improve the state our educational system accordingly.” All liberating education should guide each citizen of the world in their own intellectual, emotional and spiritual quest, which involves questioning their own epistemic paradigms. What is my identity? Why is this my nationality? Why should I follow this religion? What are my responsibilities to nature given my human condition and capacity for reflection? Only by leading our own inquiries and having our own *insights* will we learn to respond. Merely repeating the answers of Jesus Christ, Buddha, Mohammed or

⁴⁵ Cfr. Marx 1973.

⁴⁶ Krishna 2013, 27.

other spiritual leaders will not cultivate our consciousness so that it may safeguard life on Earth. Each response is unique and non-transferable.

For this reason, it is important to reinvent the sacred from our own individual interpretive processes, which involves learning to lead intra-religious dialogue. According to the philosopher, theophysicist, and scholar of comparative religion, Raimon Panikkar⁴⁷, “If interreligious dialogue is to be a real exchange, intra-religious dialogue must accompany it, i.e. I should begin by questioning myself and the relativity of my beliefs.” Panikkar’s ideas present a meeting point between East and West, as his works comprise and defend an ongoing intercultural and interfaith dialogue that leads to cross - fertilization between cultures and civilizations, in which everyone learns from everyone.

Each language is a world (...) Each culture is a galaxy with its own criteria of goodness, beauty and truth. We mentioned that the truth, because it is constituted by this relation, is pluralistic, if by pluralism we mean the awareness of different worldviews’ incompatibility and the impossibility of judging impartially, and that therefore the possibility of judgment is contingent on and limited to one’s own cultural practices⁴⁸.

As Panikkar states, pluralism makes us aware of our contingency and the limits of our judgment. It shows us how to live in the face of cultural diversity comprising distinct galaxies of experience with their own criteria of reality. According to Panikkar⁴⁹, every culture and civilization has three autonomous orders (myth, logos and mystery) and one cosmotheandric dimension which collectively interrelate, making the human, the cosmic and the divine inseparable. Thus, Panikkar unifies and reconciles physical cosmology and religious cosmology, giving a new philosophical and spiritual dimension to autonomous science. Pluralistic consciousness reminds us that every culture or religion is intrinsically open to being enriched by others, since understanding our humanity in the universe requires a comprehensive solidarity among all beings in pursuing knowledge of our ontological structure.

In a complementary argument, physicists and philosophers Danah Zohar and Ian Marshall⁵⁰ suggest in their book *SQ: Connecting with Our Spiritual Intelligence* that “the whole picture of human intelligence can be completed with an analysis of our spiritual intelligence.” According to Zohar and Marshall, spiritual intelligence addresses and solves the problems of meaning and value, places our actions and our lives in a richer and broader context, and ultimately evaluates whether one course of action or way of life is more significant than another. This freedom of religious and spiritual choice is also supported explicitly in Article 18 of the Universal Declaration of Human Rights: “Everyone has the right to freedom of thought, conscience and religion; this right includes freedom to change his religion or belief, and freedom to manifest that religion or belief individually and collectively, both in public and in private, in teaching, practice, worship and observance.” We must wisely choose our image of the sacred in order to guide our lives and civilizations without descending

⁴⁷ Panikkar 1999, 74.

⁴⁸ Panikkar 1998a, 29.

⁴⁹ *Cfr.* Panikkar 1998b.

⁵⁰ Zohar & Marshall 2000, 3.

into barbarism or self-destruction. Hence the importance in clarifying the epistemological tenets of religions most practiced today, with the aim of building a new global ethic that reinvent our relationships with the sacred practice, worship and observance.

4. A New Global Ethic?

Learning to co-evolve harmonically with the Pachamama involves the emergence of a paradigm characterized by a planetary consciousness, in which different worldviews and epistemes coexist at once, including science and religion. The experience of interconnection with the cosmos must be joined by a new ethics and global spirituality that reinvent our relationships with the sacred. In this project, the fundamental text entitled *A Global Ethic. The Declaration of the Parliament of the World's Religions*, by theologians Hans Küng and Karl-Josef Kuschel⁵¹, presents an argument for a *global ethic* and a *Parliament of the World's Religions* in order to achieve a culture of continuous global peace. "In the not too distant future we should have other statements that more precisely and completely establish a global ethics of religion," argue Küng and Kuschel⁵², adding that "maybe one day even may have a statement from the United Nations Conference on a Global Ethic that will provide moral support to the Declaration on Human Rights, which are so often ignored and cruelly violated." According to Küng and Kuschel, interreligious dialogue is the central pillar for achieving lasting world peace, since global society does not need a single religion or ideology but a set of ethical norms, values, ideals and purposes as a common denominator that may exceed and coordinate the varying religions and worldviews of different peoples.

In this regard, the doctor, theoretical biologist and researcher in complex systems on the origin of life on Earth Stuart Kauffman⁵³ believes that "we can reinvent the sacred. We can invent a global ethic, in a shared space, safe for all of us, with a look at God as the natural creativity in the universe." In addition, Kauffman suggests that we are completely responsible for ourselves, our lives, our actions, our values, our cultures and, ultimately, the current planetary civilization that destroys the environment every day. For Kauffman⁵⁴, reinventing the sacred is not a sacrilege, "on the contrary, with caution, I think we need to find a global spiritual space that we share through our various civilizations, in which the sacred is made legitimate for us all," i.e., a global spiritual space where "we can find a natural sense of God that we can share a substantial degree regardless of our religious convictions"⁵⁵. Here lies the importance in approaching social-ecological problems recognized by the SDGs of the UN in a way that promotes a global, ethical and spiritual space free of identities, egos, through a cosmodern consciousness involves a bridge between different religions, spiritual worldviews and interpretations of the sacred. But how many interpretations of the sacred are there? How many religions continue to exist in the world?

⁵¹ Cfr. Küng & Kuschel 2006.

⁵² Küng & Kuschel 2006, 9.

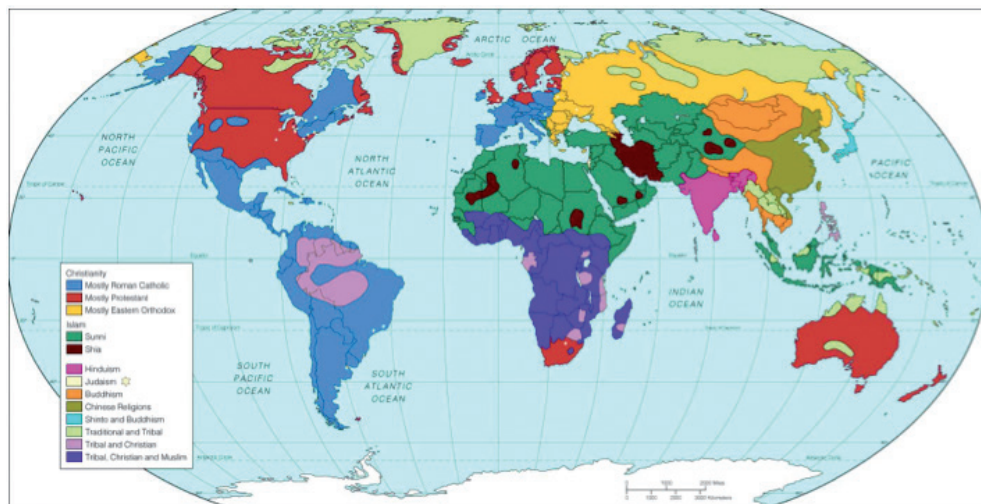
⁵³ Kauffman 2008, XIII.

⁵⁴ Kauffman 2008, 283.

⁵⁵ Kauffman 2008, 283.

How to reconcile the paradigmatic, epistemic matrices that are different religions in a single global spiritual space?

While it is impossible to say with certainty the exact number of current religions and the number of practicing followers to each of them, the book *The Everything World's Religions Book* published in 2010 by writer and philosopher Kenneth Shouler makes a rough estimate of 4.200 religions. Despite the difficulties, other researchers and religious scholars working in the online initiative adherents.com, which compares statistical data from academic studies and builds consensus between different experts' and professionals' opinions and explanations, share that conclusion.



Map 1. *Source:* Cengage Learning. World map with each country's most practiced religion.

Though this map is a reduction of the 4.200 world religions estimated by Shouler⁵⁶ and independent researchers of adherents.com, it does help us to identify the most practiced religions today: Christianity, Islam, Hinduism, Buddhism and the traditional Chinese religion. It highlights how colonizing countries have implemented their own religious systems in their respective colonies, as is the case, for instance, in the colonization of most of South America, Central America and much of North America by Spanish and Portuguese Catholics. Protestantism likewise spread to the former British colonies of North America, South Africa, Australia and New Zealand. In this logic of epistemic imposition, the satellite countries of the former Soviet Union also stand out, who in large numbers continue to practice as Orthodox Christians. The southern part of the African continent is also very striking, where different Muslim, Christian and tribal currents live together. This largely accounts for the increase in the number of refugees and displaced persons from these countries due to ethnic-religious conflicts today. Islamic influence is evident in northern Africa, the Middle East and much of Southeast Asia. In Asia, we find Hinduism as the primary religious system, in terms of its number of followers, while Buddhism has

⁵⁶ Cfr. Shouler 2010.

expanded to a large number of Asian countries. Chinese folk religion also has a strong weight in the area. But most striking are the most tropical areas of Australia and areas of Amazon rainforest in South America, which retain strong traditional and tribal commitments to indigenous worldviews.

Table 1 is included to supplement the map above, and to provide an interfaith comparison of those philosophical and religious doctrines that are most influential and practiced today. Despite not having a great prominence on the map, Judaism is also included because of its major historical importance and historical link to Christianity and Islam, which are practiced by more than half of the world population. The table's intention is to create a meta-reflection point to conceive more clearly the global ethical and spiritual space demanded by Kauffman, Küng and Kuschel. It helps us recognize that all these interpretations of natural reality and the cosmos converge in many respects, as will be detailed below in Figure 2.

As shown in Table 1, adherents of Christianity (33%), Islam (21%), Hindu (14%), Buddhism (6%) and the traditional religions of China (6%) comprise 80% of the current global population. But if we also note that about 1,100 million people are secular, non-religious, agnostics and/or atheists (16% approx.), then all other world religions are practiced by only 4% of humanity. In other words, the other 4,195 religions and spiritual worldviews identified by Shouler are practiced by approximately 275 million people. The contrast is worth emphasizing: in 2010, 5,500 million people adhered to one of five major religions, 1.100 million identified as non-religious, and only 275 million people followed the remaining 4,195 religious worldviews.







As is the case with human languages—experts expect 7,102 languages recognized by the *Ethnologue*⁵⁷ to decline and disappear for various cultural reasons—this diversity of religious worldviews will likely drop dramatically in the coming decades. According to estimates by linguists, for the past 10,000 years humans have spoken about twelve thousand tongues. Although the world population has grown exponentially in the wake of industrialization, only a little more than seven thousand languages are spoken now. As a whole, the loss of languages and religious worldviews indicates the loss of some of the human being's inherent integrity. That is, it indicates a loss of ancient approaches to understanding the world and creative ways to achieve sustainable development in peace and harmony with Mother Nature, as opposed to the currently hegemonic rationalist and capitalist episteme. The loss of an ancient worldview represents the loss of a unique way of thinking and seeing the world.

Everything seems to indicate that the five-great religious epistemic systems will exhibit evolutionary dynamics similar to those of gravitational forces during the expansion of the universe: they will absorb material (citizens) and grow through violent impacts, especially in Africa, where the population is expected to grow to 1,800 million during the second half of the century⁵⁸. But one should also account for an increase in *religious entropy*, i.e., the non-usable energy contained in a system, manifest in a parallel increase in “non-religious” people. This would incur the neglect of humans' spiritual dimension, and risk of breaking the rational balance between effectiveness and spiritual affection.

⁵⁷ Since 1951 the *Ethnologue* research project has published work on the world of modern languages. In its 18th edition, Lewis, Gary, and Charles (2015) recognize 7,102 living languages among a global population of 7,106,865,254 people.

⁵⁸ *Cfr.* United Nations, 2014

Table 1. *Source:* Authors' tabulation. Interfaith comparison of the most practiced and influential philosophical and religious doctrines today. Statistical estimates of the number of followers from adherents.com.

Religion	Christianity	Islam	Hinduism	Buddhism	Chinese TR	Judaism
Symbol						
Founder	Jesus	Muhammad (Muslims)	Has no founder	Gautama (Buddha)	Has no founder	Abraham
Deity	Monotheistic	Monotheistic	Monotheistic and polytheistic	No deity	Polytheistic	Monotheistic
Place of Worship	Church	Mosque	Temple or house	Temple	Temple	Synagogue
Sacred Text(s)	Bible (Old and New Testament)	Koran (114 sura)	4 Veda, Upanisad, Mahabharata, Bhagavadgita Raamaayana	Vinaya, Sutra, Abhidharma	Oral tradition	Torá (Mishnah and Talmud)
Denominations	Catholicism, Protestantism, Orthodox, evangelical, pentecostal,	Sunnism, Shiism, Sufism, Kharijism	Vishnuism, krishnaism, shivaism, Shaktism	Theravada, Mahayana Vajrayana	Confucianism, Taoism,	Orthodox, Reform, Conservative, Reconstructionist Karaite, Hasidic
Adherents (Millions)	2.100 - 2.300	1.500 - 2.040	900	375 - 500	394 - 800	14
%World Population	33%	21%	14%	6%	6%	0.25%

Therefore, it is urgent that the processes of teaching and learning establish mechanisms to go beyond the educational content of formal and institutionalized teaching, reaching families, communities, civil society, the private sector, policy-makers, media, internet, etc. They should also promote awareness campaigns, recognition of and participation in local knowledge practices more broadly, and of local peoples in particular. Saving and resuscitating this ancestral knowledge through educational mechanisms will bring us closer to rediscovering ways of living that have always been in harmony with the *sacred*.

Sustainable development cannot be conceived as a single set of goals, but an ongoing process of properly managing all natural resources of the biosphere. It is im-

portant that cosmodern education prioritizes the defense, recognition, and care for the rights of indigenous peoples, aboriginal and indigenous, without falling into a romantic idealization. Their customs, languages, religious beliefs and worldviews often comprise a biomimetic ancestral wisdom necessary to meet the SDGs proposed by the UN⁵⁹. This ecology of scientific and non-scientific knowledge helps us to re-imagine the socio-ecological systems of consumption via a new symbiosis between natural ecosystems and human systems of production. In this sense, biomimicry emerges as a science that seeks the harmonious reintegration of human systems within natural systems, situating the technosphere and sociosphere in the biosphere⁶⁰.

The philosopher Jorge Riechmann⁶¹ extends this idea in his argument that we must address the principle of biomimicry in a broader sense, to “understand the operating principles of life at different levels (particularly in the ecosystem) in order to redesign our human systems to fit harmoniously into the natural systems.” For this reason, the challenge of creating new biomimetic systems of economic production that are sustainable elements of a broader environment requires awakening the evolutionary consciousness of individuals through an epistemic combination of science and spirituality. The emergence of ecology as a science that questions, values and *reconnects* human relationships with nature has made us realize that science and spirituality must be studied and practiced in a complementary manner. This invites us to reason and question everything, (re)discovering our status as part of the cosmos in a full ecological communion, which in turn implies a reinvention of the *sacred* through a new ethical and spiritual space. But how can we develop our spirituality outside formal religious traditions? The following section seeks to answer this and other questions.

5. Inter-religious and Intra-Religious Dialogue of Historical Spiritual Beliefs

The human being has committed countless crimes in the name of religion. In fact, scientific, rational, objective and secular thought emerged in the seventeenth century to counteract the human power of *divine origin*. But the eventual dominance of that rational epistemic system, at the expense of other human dimensions, has led us to an even more dismal picture: the nuclear threat and climate change resulting from the prolonged and systemic exploitation of nature. For this reason, the powerful and simultaneous development of different scientific and religious knowledge is necessary to learn to co-evolve resiliently in the Pachamama. To that end, inter-religious and intra-religious analysis is necessary to help discern how to develop our spirituality outside epistemic systems built by the traditions of formalized and institutionalized religion.

According to the book *The Tao of liberation. An ecology of transformation*, by the ecologist Mark Hathaway and theologian Leonardo Boff⁶², “the spirituality of each person is in a unique sensibility, and our spirituality can be based on the diversity of religious traditions and philosophical as well as our own experience.” However, they also warn, “most of mankind finds their key sources of spiritual understanding

⁵⁹ *Cfr.* Collado 2016e.

⁶⁰ *Cfr.* Collado 2016f.

⁶¹ Riechmann 2014, 171.

⁶² Hathaway & Boff 2014, 376.

shared interpretations of major religious beliefs regarding the relation between reality and individuality. Levels of reality in the upper part are reflected in the levels of individuality in the bottom through four circles of different intensity. This figure's importance lies in its ability to highlight the many similarities between the paradigmatic epistemic systems of the six most influential world religions, which include as adherents 80.25% of the current world population. In a certain way, this mandala allows global citizens to recognize themselves in the mirror of the other, in infinite otherness, since it highlights numerous cultural bridges between these great world-views.

Although this symbol does not allow a meticulous interreligious study by encapsulating all the details characteristic of each epistemic system, there is no doubt that a new global spiritual space begins to emerge from such a horizontal dialogue between religions. This interfaith dialogue shows that human consciousness is evolving towards integration with the sacred from different spaces and historical times, although each religious perspective gives a different value to the nature of reality. Despite the many differences between religions, the mandala highlights the ancient idea of the *Great Chain of Being*, i.e. the idea that reality is an interwoven network of levels of consciousness that proceed from matter to body, then mind, soul, and ultimately the divine source, the *Tao*, the *Nirvana*. Spiritual insights reveal an understanding of sacredness in which life is interconnected radically at all levels. Nature invites us to develop spirituality through our own Judeo-Christian *spirit*, Islamic *fitrah*, Chinese *shen*, Buddhist *Buddha-dhatu*, and Hindu *atman* in order to attain harmony with the sacred.

Developing our spirituality cannot be an obligation of the micro-world paradigm that surrounds us⁶⁶. Devotion should be a personal choice that reinvents our shared meta-world with new value systems to ensure more sustainable habits of relation with the environment and the preservation of life on our planet. As Hathaway and Boff argue⁶⁷, one has to “account for the role of spirituality and religion in any attempt to leave our path of destruction and find another in which humans actively participate in preserving and enhancing the integrity, beauty and evolution of life on Earth.” To open up this new path for ourselves, the human race needs to promote the conservation of biodiversity and defend ecosystems, as pursued by the UN SDGs. Achieving a human family in co-evolutionary harmony with the ecosystems of the Earth is, indeed, the great goal of the paradigm of cosmomodernity. We must reinvent the sacred and transgress traditional epistemic systems that anchor our religious and cultural differences, which block us and cause us to stumble towards physical and spiritual death. On the contrary, we must focus on developing a culture of peace among peoples that will not harm future generations. This trans-historic desire exists among all faiths and cultures of humanity.

Some good examples of this peaceful worldview are the sacred texts of Hindu revelation, namely, the *Vedas* and *Upanishads*. Mahatma Gandhi is certainly regarded as an apostle of peace and non-violence derived from the spiritual knowledge of these Hindu philosophical texts. The main essence of these holy texts is the realization of the unity of all creatures. Despite the diversity of belief (monotheists, polytheists, pantheism, pandeism, monism, atheism, etc.), Hindu belief holds that behind the visible uni-

⁶⁶ Cfr. Varela 1996.

⁶⁷ Hathaway & Boff 2014, 376s.

verse (Maya) there exists an infinite reality known as *Nirguna Brahman*, lacking any imaginable form. This monistic quality contrasts with Hinduism's polytheistic worship of many gods and goddesses, whose attributes manifest at the level of *Saguna Brahman*. The deities *deva* (male) and *devi* (female) are described as super-natural beings, such as the guardians of the cardinal points depicted on the walls of Shiva's temple in Prambanan (Indonesia). The *Prakriti* is nature, which inhabits the *dense body* of the human being, which according to the sacred text of the *Bhagavad Gita* is directed by the *subtle body*, that is, the mind, intelligence, and ego. The *Karana sarira* or *causal body* is the seed of the *dense body* and *subtle body* that the *atma* realizes as the last individual instance to connect with the ultimate reality of *Nirguna Brahman*. Similar to the Chinese *Tao* or Buddhist *Nirvana*, the Hindu *Nirguna Brahman* shows that the search for the truth of the unity of nature and the cosmos transcends all religious beliefs, unable to be conceived or described in words.

In fact, the poet and writer Indian Rabindranath Tagore (Nobel Prize in Literature in 1913) and the famous physicist Albert Einstein (Nobel Prize in Physics in 1921) share that conclusion in their meeting on July 14, 1930 in the outskirts of Berlin. Tagore himself provided a good example of this inability to describe the ultimate reality of the universe at another time: "Most people believe that the mind is a mirror, reflecting more or less accurately the existing world outside them, without realizing that, on the contrary, the mind itself is the main element of creation." This is a profound *insight* that involves an ontological leap in the way we perceive the structure of reality.

Without doubt, this philosophical and religious conception goes beyond the concept of *deep ecology* made by the Norwegian philosopher Arne Naess in the 1970s. According to Naess⁶⁸, there is a superficial ecological vision that perceives the human being above nature and that entitles him to exploit without limits. To overcome this conspicuous anthropocentrism, Naess suggests a *deep ecology* where the human being is horizontally connected to all living things. While this view has been criticized for its suggestion that human life has the same value as the other forms of life, the Tagore's Hindu-inspired ideas go far beyond his framework. Tagore's contemplations suggest that our mind is able to transcend all epistemological and ontological levels to create the structure of cosmic and earthly reality.

Tagore's compatriot and fellow spiritual philosopher Jiddu Krishnamurti also shares this insight. In a pamphlet called *The Future of Humanity*, Krishnamurti⁶⁹ converses with the physicist David Bohm about the question, 'What is the future of humanity?' In their conversation, these authors argue that humanity lost its path, and that its habit of continuing along its present course leads to the annihilation of life on Earth, including mankind. To change this civilizational trajectory, Krishnamurti emphasizes the promotion of spirituality, since our scientific knowledge alone cannot spare us from disaster, but the supersensory *insights* that reveal our connection to the whole and allow us to transcend reality may offer hope. Incredibly, this spiritual vision has found scientific support in the second half of the twentieth century, especially with the formulation of the theory of Autopoiesis postulated by the philosophers and biologists Humberto Maturana and Francisco Varela⁷⁰.

⁶⁸ Naess 1973.

⁶⁹ Cf. Krishnamurti & Bohm 1983.

⁷⁰ Cf. Maturana & Varela 2011.

Like the *bootstrap* model, the theory of Autopoiesis reveals that all phenomena are interconnected and have the intrinsic capacity to self-organize as a whole. What we think we are transmitted to the body by the peptides of the blood, also act as molecular messengers in a shared psychosomatic network between the nervous, immune and endocrine systems. For this reason, Bohm argues that, “modern research into the brain and nervous system actually gives considerable support to Krishnamurti’s statement that insight may change the brain cells”⁷¹. It seems that the ability to transcend the mind and create the structure of reality through deep meditation could be scientifically supported in the coming years, as more evidence arises.

6. Cosmodern Conclusions for a More Sustainable, Regenerative, and Resilient Bio-inspired Future

The investigation of physical states and other subatomic phenomena has scientifically proven that a vast network of interconnections that includes the subject-observer constitutes the ontological structure of reality. This self-conscious recognition of interconnected individuality has great significance for achieving planetary sustainability, since it forces us become more responsible and reflective regarding the co-evolutionary processes that develop life on the planet as an interdependent whole.

In other words, the pollution and environmental degradation perpetrated by each person directly and indirectly affects the rest of world, but also impacts their environment. We must understand that each of us creates his unique world through entering into relationships with others, and this interaction with other unique worlds occurs in a common shared world: a meta-world. By discovering that we cannot be replaced by anyone else, because we are unique and singular individuals, we understand that the world is composed of many worlds. A world with more than seven thousand two hundred million worlds! Each world interacts in a unique, personal way with the entire universe, as do the constellations of neurons in our brain.

As Maturana and Varela⁷² explain, “We do not perceive that we have only the world we create with others, and that love alone enables us to create a world in common with them.” Each of us is a unique individual being who lives in a meta-world that welcomes us for our vital, emotional and intelligent contributions; but our meta-actions are destroying the life of this shared meta-world that transcendently affects us all. The consumption and pollution of every individual directly affects the rest of the (current and future) world population, but also the great biodiversity that has co-evolved in natural ecosystems for thousands of millions of years.

By demonstrating that there is a reciprocal effect between individuals and the environment, it is clear that the SDGs only be achieved collectively and indivisibly: by feeling part of the co-evolutionary processes of an indissoluble meta-world. As in the subatomic world, the individual is meaningless as an entity except when situated within an indivisible whole that is constantly moving and restructuring, not unlike today’s global citizenship. We must promote a type of systemic-analytical thinking that recognizes the human condition within a vast network of relationships and ener-

⁷¹ Krishnamurti 1983, 4.

⁷² Maturana & Varela 2011, 270.

getic movements in flux. This is necessary to correct the epistemic fragmentation that we create.

Bohm⁷³ explains his theory of holomovement as follows: “we have the habit of taking the content of our thinking as a description of the world”, and by assuming a direct correspondence between our thoughts and objective reality, we merely submit to epistemic illusion. According to the theory of relativity and quantum theory, this relation is much more complex than a simple correspondence, since there are no discrete (perceiving or perceived) parts—in other words, the ontological structure of the universe can only be understood in terms of relatedness between human beings and nature, with our Mother Earth and the cosmos in its broadest sense.

Although both theories are very different from each other, they show us the need to understand the world as an indivisible whole where all the parts of the universe—including the human observer and his instruments—merge into single totality structured by matter and energy in a constant process of transformation. A good way to begin understanding this complexity is to combine scientific reason with spiritual insight to unify the life, mind and matter, without making any categorical division between the physical world and the living world. In this context, one could metaphorically define the paradigm of cosm modernity as the constellation of interconnections that individuals of world citizenship must make to achieve genuine sustainable and regenerative development through a synchronous participation in the cosmic dance of stars and galaxies in their processes of energetic transformation.

Just as subatomic particles in the quantum world have no meaning if any are studied in isolation, the interactions of individuals must be understood within an extensive network of interconnections and correlations. Raising this awareness, that all our actions are interconnected in a vast network of universal interdependence, is the key to safeguarding the rich global biodiversity and achieving compliance with the SDGs by 2030. To proceed in this direction, it is necessary to create new inter-epistemological dialogue between scientists and non-scientists in all areas of formal, non-formal and informal knowledge.

In the paradigm of cosm modernity, scientific knowledge of an external physical universe converges with the spiritual knowledge of inner emotional universe. “Transdisciplinary education for sustainability includes the spiritual dimension as a nucleus for the creation of our societies, locally and globally,” explains anthropologist Cristina Núñez⁷⁴. This means that educational success cannot be measured by the simple quantification underlying standardized tests of reading, science or math—the OECD PISA tests are one example. Real educational success is rooted in students’ spiritual, emotional and psychosomatic experiences, between body and mind, and their intention to developing deep connections with others, with life, and with nature and the cosmos.

In short, it seems that dialogues among great scientists and spiritual leaders (Einstein and Tagore, Bohm and Krishnamurti, Anton Zeilinger and Dalai Lama, etc.) on the fundamentals of mind, matter, consciousness, life and nature may reveal a path forward from our paradigm of un-sustainability, a path in which we come to understand ourselves as a single social and natural world. This is why the cosm modern paradigm’s pursuit of sustainable development, inspired by biomimicry, is supported

⁷³ Bohm 1992, 22.

⁷⁴ Núñez 2012, 109.

by both spiritual beliefs and empirical scientific work, without dogmatism from either side. The cosmodern vision integrates both types of knowledge to produce a civilizational metamorphosis that reinvents our relationship with the sacred. Nature is a unique role model for efforts to achieve socio-economic sustainability, as is well recognized by the spiritual and ancestral beliefs of native peoples, whose ancient wisdom must be rescued. Therefore, we conclude that to learn to co-evolve resiliently in the Pachamama, we must develop different scientific and religious forms of knowledge at once.

The paradigm of cosmodernity is premised, therefore, on ideals of transnational cooperation, intergenerational solidarity and the harmonious and sustainable co-evolution of human cultural systems with ecosystems of nature. We must seize the opportunity given to us by the SDGs to walk together towards a civilizational horizon that relates sustainably to its environment. At this historic crossroads, we must understand that sustainability is a complex and multidimensional process that is part of and external to the human being at the same time. It also represents a historic opportunity to biomimetically reconceive our values about what *sacred*, and the opportunity to create a “global ethic” for which we can live in a culture of peace that allows us to avoid the ecological and civilizational disasters toward which we now head.

Hence the cosmodern approach amounts to an epistemological openness that seeks to integrate, include and combine multiple cosmic, physical, biological, ecological, spiritual, religious, mystical, rational, social, political, ethical, emotional, affective, cultural and artistic dimensions of the human, who coevolves and permanently self-organizes among eco-systemic and interdependent exchanges of energy, materials and information⁷⁵. Facing the dangers of the future, with the collective aim to meet the SDGs proposed by the UN in 2030, requires holistic, systemic and transversal reflections on the position of human beings in the Big History, while bearing in mind the epistemic world views and cultural traditions of each particular context. In this process, the combination of science and religion allows us to mimic the flexible strategies of nature and the cosmos, to adapt them to the eco-social circumstances of our community, and to serve as a model, a measure, and a mentor in our attempts to integrate the wisdom of the biospheres into the sociospheres and technospheres in which we live.

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⁷⁵ Cfr. Collado 2016f.

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