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## **EXPANDING TEILHARD'S “COMPLEXITY-CONSCIOUSNESS” LAW**

**Louis M. Savary**

**TEILHARD STUDIES** is a monograph series concerned with the future of the human in light of the writings of Teilhard de Chardin. Two issues each year are planned, to be sent to members of the Teilhard Association.

# TEILHARD STUDIES

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# EXPANDING TEILHARD'S "COMPLEXITY-CONSCIOUSNESS" LAW

**Louis M. Savary**

## INTRODUCTION

One of Teilhard's great discoveries related to the theory of evolution is his Law of Complexity-Consciousness. Simply put, this law reflects the tendency in matter to become more complex over time and at the same time to become more conscious. Teilhard recognized that this tendency in material things toward higher levels of complexity leading to higher levels of consciousness is a pattern that seems to guide the evolution of the entire universe, especially Earth's development in all its dimensions. For example, this law is key to understanding our planet's biological development in its four-billion-year process from single-celled organisms to the vast array of multi-celled creatures that cover our planet today. It also operates in psychological and social arenas, for example, in the increasingly complex socialization of humanity, and proves to be important in understanding and managing personal and collective spiritual growth as well as in working out the moral conclusions that may be drawn from it.

Teilhard discovered this law of *complexity-consciousness* early in his career, though he describes it for the first time formally in *The Phenomenon of Man*.<sup>1</sup> Throughout his years, it remains central to his thought. He refers to it again and again in his many later lectures and essays.<sup>2</sup>

In this paper I hope to show that Teilhard's law of *complexity-consciousness* can be further clarified and enriched by adding two preliminary stages, attraction and connection, creating a clearer natural progression: the law of *attraction-connection-complexity-consciousness*.<sup>3</sup>

I offer five reasons for taking this liberty to expand the formulation of Teilhard's law.

*First, the new formulation clarifies and enriches Teilhard's insights regarding "complexity-consciousness" and is implicit in his writings.*

*Second, in this expanded version, Teilhard's evolutionary law becomes much easier for ordinary people to grasp, acknowledge, and use in practical ways.*

*Third, this formulation reveals a way for people to recognize more clearly how God is working in and through people and creation.*

*Fourth, in this formulation, Teilhard's law becomes, in fact, a law of evolutionary spirituality and reflects in evolutionary language God's law of divine love.*

*Fifth, this expanded formulation offers a structure for building daily spiritual practices, making major decisions, and discovering one's life purpose.*

**First, the new formulation clarifies and enriches Teilhard's insights regarding "complexity-consciousness" and is implicit in his writings.**

### **A Slow Realization**

It is important to remember that Teilhard realized only little by little the centrality of the *complexity-consciousness* principle.<sup>4</sup> In the *Phenomenon*, he tried to show that *complexity* is a valid scientific way to measure physical phenomena. In addition to the two infinities that physicists use, the infinitely large and the infinitely small, Teilhard cited complexity as a "third infinity":

In order to cover scientifically the totality of experience, it is necessary to consider one more infinity in the universe, one just as real as the other two: that of complexity. Around us, bodies are not merely small or large. They are also simple or complex.<sup>5</sup>

Teilhard wanted to show that complexity is an important, even essential, way of measuring reality, of understanding the life sciences, and even more especially of comprehending the evolutionary processes of the universe and of life on our planet. Thus, he introduced what he called the "axis of complexity." He felt that, with only the axes of the infinitely small and the infinitely large at their disposal, scientists could not adequately measure, comprehend, or classify the phenomenon of life, especially for the development of the myriad life forms on Earth and the rise of human life with its civilizations and cultures.

Since Teilhard's day, however, both these scientific axes have proved to be more revelatory than he imagined. Along the *axis of the very large*, for example, cosmology and astrophysics are providing new possibilities for situating the development of life in meaningful and comprehensible ways, as recognized by Teilhardians Thomas Berry and Brian Swimme.<sup>6</sup> Similarly, along the *axis of the very small*, quantum physics offers meaningful information for new philosophical and theological reflections on life. For example, while Einstein showed how energy and matter are convertible in his famous equation  $E = mc^2$ , quantum physicists have shown experimentally how the scientific observer's interaction can alter the results of an experiment. In other words, in certain scientific experiments, human observations of quantum systems can actualize one potential reality rather than another.<sup>7</sup>

More recently, another axis has emerged in the scientific community, providing a way to measure to which Teilhard had little access, namely, *the axis of ecology*. This axis refers to quantifiable variables related to the processes, interactions, and adaptations of life forms: biodiversity, ecosystems, nutrient cycling, and other concerns of natural resource management, such as fossil fuels, solar and other sources of energy, species extinction, renewal and

development of ecosystems, and climate change. This axis is related to the attraction-connection elements of Teilhard's evolutionary law, though Teilhard himself never explicitly stressed this relationship.<sup>8</sup>

## **Complexity**

As he examined fossils from the quaternion period, Teilhard began to realize that complexity and consciousness were correlative, that is, that the amount of complexity in an object could be used as a measure of its level of or its capacity for consciousness. In Teilhard's words, "Spiritual perfection (or conscious 'centreity') and material synthesis (or complexity) are but the two aspects or connected parts of one and the same phenomenon."<sup>9</sup> In Robert Faricy's words, "at every level of material being the degree of consciousness varies according to the degree of complexity."<sup>10</sup>

Teilhard offered a simple description of complexity. He said it is not simple multiplicity as in the sands of the seashore. Instead, it requires the organization of at least some parts of a system. Thus, it is an *organized* multiplicity, "not simple complication, but *centrated* complication."<sup>11</sup> In today's systems language, we might describe "organized multiplicity" as the parts of a system interacting cooperatively, and "centrated complication" as a system where these parts share one primary purpose or aim. A good example is the human body, in which all body parts interact cooperatively having the primary shared aim of keeping the body alive, safe, and healthy.

Complexity as a scientific measuring tool became crucially important when Teilhard introduced the concept of the noosphere, where the complexity-consciousness law applies both in the physical order (tangibles) as well as in the psychic order (intangibles). For example, he

would refer to the complex physical organization of the human body as the "without" and the interior organization of human ideas and feelings as the "within."<sup>12</sup>

In *The Phenomenon of Man*, Teilhard calls complexity the "without" of things, and consciousness the "within" of things. Therefore, because every material being has some structure or organization, and because the law of *complexity-consciousness* is universal in Teilhard's system, all material beings, not only living things, have both a "within" and a "without." In other words, each being has a level of consciousness that corresponds to the complexity of its material structure. Teilhard would say that as soon as something developed a further degree of complexity, that structured thing possessed the first stirrings of consciousness. At the simplest levels of existence, for example, in a molecule or a cell, consciousness might be imperceptible to humans, but for Teilhard every element in the universe contains a "germ of interiority, of spontaneity, of rudimentary consciousness," even though it might be imperceptible to us.<sup>13</sup> For Teilhard, consciousness increases and becomes more apparent as complexity increases. At present, the highest form of consciousness that we know is self-reflective consciousness, which is found in the human.<sup>14</sup>

### **The Noosphere and Socialization**

Among persons in the noosphere both types of complexity (increasing physical complexity as well as consciousness, including the increasing complexity of information and knowledge) operate in combination, thus creating even more physical complexity and a demand for increased consciousness. The increased complexity generated in groups of animals and humans leads to what Teilhard calls "socialization," the gradual formation and evolution of larger and larger social units or wholes.<sup>15</sup> Among humans, Teilhard lived to see social complexity worldwide in

the formation of the United Nations organization and multi-national corporations, but not long enough—he died in 1955—to witness the emerging potential of the internet and the social media of the 21<sup>st</sup> century to interconnect, almost instantly, thousands and even millions of people.

A *system* consists of a number of parts that interact in an organized way to fulfill a stated aim or purpose. An example of a mechanical system would be an automobile or a computer. The most basic living system is the cell, with a number of parts working together to carry out specific functions, having the overall purpose or aim of keeping the cell safe and healthy. Within this general purpose, a cell may typically have many sub-functions—obtaining nourishment, eliminating waste, reproducing, protecting and healing the body, and repairing. The cell is what we term today a *holon*,<sup>16</sup> that is, an organized whole that can be recognized as part of a greater whole. In the human body, cells organize into a higher-level system or holon as for instance, when they form an organ, such as a kidney, liver, or heart; each of these organs (holons) has its own unique functions and purpose. In turn, each of these organs (holons) is nested within a still higher-level holon called the human body, which has its own unique functions and purpose. The body, in turn, is nested within a continuing series of ever-higher-level social holons—the family, the community, the nation, humankind, and the planet. The process of ever increasing complexity of smaller holons nesting within larger holons offers an interesting way of describing the evolution of human society, culture, and civilization. Thus, socialization follows the law of complexity-consciousness. Each higher-level nesting arrangement naturally generates higher levels of complexity and correspondingly higher states of consciousness, at least in some of its members and parts.<sup>17</sup>

### **Union Differentiates**

As Teilhard explored the phenomenon that gives rise to socialization, he began to reflect on what he calls *union*, that is, two or more things, especially living things, connecting, bonding, or joining together to form a new system or holon. Union among humans might take the form of a friendship, a marriage, a sports team, a research team, a medical team, or some other affiliation, formal or informal, each group having a shared focus or purpose. And what he realized was that this act of union or bonding by its very nature differentiates; that is, it brings out the uniqueness of each of its members. In Teilhard's words, "Union differentiates."<sup>18</sup> True union, the union of heart and spirit, does not enslave, nor does it neutralize the individuals that it brings together. It *super-personalizes* them.<sup>19</sup> Often, true union also brings out qualities and abilities in the members of the union that they never knew they had. Union creates a common vision or a shared passion.<sup>20</sup> Furthermore, the union itself, as a new holon, begins to manifest its own emerging capacities that none of the individual persons in the union possess. Thus, a basketball team can win a game, something an individual player cannot do alone. Teilhard helps us to see that union has wider implications:

Achieved with sympathy, union does not restrict but exalts the possibilities of our being. We see this everywhere and every day on a limited scale. Why should it not be worth correspondingly more on a vast and all-embracing scale, if the law applies to the very structure of things?<sup>21</sup>

For Teilhard, "union differentiates" is an all-embracing law, intimately connected to the all-embracing law of complexity-consciousness. Union—or connection—is the primary producer of complexity and consciousness. Every true union inevitably generates an increase in complexity.

Thus, even though Teilhard himself never formally did so, we may legitimately expand his law of *complexity-consciousness* to a law of *connection-complexity-consciousness*.<sup>22</sup>

### **Forces of Attraction**

Teilhard also focuses on *attraction*. He describes the normal forces of attraction that we all feel in our daily interactions with each other. I am drawn to this person. I enjoy being with that person. This person intrigues me. I like the way that person thinks. We share the same interests. In short, it is this very ordinary and spontaneous attraction we feel towards other people that typically leads to connection or union. Without attraction, there would most likely be little or no union, especially what Teilhard calls center-to-center union, a union of hearts.

Teilhard recognized this inherent force of attraction operating everywhere and at every level in the cosmos. As Ilia Delio notes,

He was impressed by the levels of attraction in nature whereby elements unite center to center, leading to more being and consciousness. Teilhard called this fundamental force of attraction “love energy” because it is the primordial energy of union by which new complex entities emerge. Love-energy undergirds the process of attraction between particular entities in the openness toward greater union and is present from the Big Bang onward, though indistinguishable from molecular forces.<sup>23</sup>

It is the energy of attraction that creates greater wholes in nature; it is this energy that drives connectedness and union; and in this way the energy of attraction allows more complex life to emerge as it operates everywhere in the cosmos.

In applying this insight to spiritual growth, Teilhard writes:

The first essential is that the human units involved in the process shall draw closer together, not merely under the pressure of *external* forces, or solely by the performance of material acts, but directly, center to center, through *internal* attraction.<sup>24</sup>

Teilhard notes that these "forces of attraction between men . . . are as powerful in their own way as nuclear energy appears to be."<sup>25</sup>

For Teilhard, evolution is a converging process.<sup>26</sup> All things and persons are coming closer and closer together by virtue of the bonds they form at ever-greater levels of complexity. This is especially true today when people are constantly using social media. He notes that while humankind converges upon itself "under the irresistible compulsion of the pressures causing it to unite, Mankind will only find and shape itself if men can learn to love one another in the very act of drawing closer."<sup>27</sup> It becomes clear that genuine union or connection occurs primarily through attraction.

Thus, even though Teilhard himself never formally did so, we may legitimately expand the law of connection-complexity-consciousness to the law of *attraction-connection-complexity-consciousness*. It seems quite Teilhardian to conclude that a more complete expression of the universal evolutionary law, the law that is driving evolution, is the law of *attraction-connection-complexity consciousness*.<sup>28</sup>

**Second, in the expanded version, Teilhard's evolutionary law becomes much easier for ordinary people to grasp, acknowledge, and use in practical ways.**

For Teilhard, the appearance of humans is a most significant event in the evolution of life forms on Earth, so much so that he gave a unique descriptive name to the evolutionary appearance and process of development of human life. He called the process "hominization." He

meant this term to describe the evolution of thought or reflective life as found in the human being and in human society. For Teilhard, the human being marks not the appearance of a new species of animal but the appearance of a new type of life endowed with novel powers not previously present on our planet.<sup>29</sup> Among these novel powers are self-reflective consciousness, abstract thinking, mathematics, written language, technology, and the power of choice (free will).

Unlike evolution in the animal world, which continues to fan outward like the branches of a tree into an almost innumerable number of species, the human race, in Teilhard's mind, remains a single species converging in upon itself through *attraction*, creating thousands of forms of *connection* and linkage. These linkages tend to *complexify* social life and challenge human communities to develop ethical values and ethical behaviors in order to deal with ever new forms of interconnectedness brought about by the evolution of communication, transportation, and other forms of technology. What Teilhard envisions in the process of hominization is not merely an anthropocentric ethics, but an anthropocosmic ethics. His evolutionary law, especially in its expanded form, becomes useful and practical not merely for guiding and governing relationships among humans, but for guiding and governing humanity's relationships with all life and evolving creation.

This expanded formulation of Teilhard's evolutionary law, accounts for most forms of evolutionary processes in creation.<sup>30</sup> At the most basic level of matter, the laws of physics are laws of attraction and connection. Gravity, electromagnetism, and the nuclear forces that bind atomic nuclei are forces of attraction and connection. As Thomas King observes: "Even among the molecules, [the attractive force of] love was the building power that worked against entropy, and under its attraction the elements groped their way towards union."<sup>31</sup> Delio underlines this observation: "Teilhard realized that if there were no internal propensity to unite, even at a rudimentary level—indeed in the molecule itself—it would be physically impossible for love to appear higher up, in a hominized form."<sup>32</sup>

Among living creatures, even the simplest uni-celled bacteria and viruses tend to form colonies. Multi-celled living creatures are products of attraction and connection, generating complexity. Every human cell is a symbiotic union of its parts working together. Such symbiosis is found throughout the natural world, and new symbiotic connections are probably the primary source of true evolutionary mutations among species.<sup>33</sup>

Teilhard's arrow of evolution continues to go forward and upward following this law. At the level of human relationships, individual persons grow in complexity and consciousness through processes of attraction and connection throughout life. Such attraction may be toward other persons or pets or to fields of interest or a worthy cause. Once connections are made, emergent properties begin to appear, creating complexity and demanding higher levels of consciousness among their members who need to deal in new ways with the new complexity.

At the collective, communal and global levels, society keeps building more and more complex connections, from families to tribes, to states, to nations, to worldwide organizations. And these are sustained, ultimately, through compassion, hope, love, and trust—qualities that emerge from relationship.

This expanded version of Teilhard's evolutionary law reflects the law of divine love. In Christian theology at least, the very nature of the divine Spirit is Love, and Love's goal is to bring all humans (with all of creation) into one magnificent loving union.<sup>34</sup> Teilhard's expanded law of *attraction-connection-complexity-consciousness* is merely an evolutionary formulation of the divine law of love, clarifying the process by which that magnificent loving union is to be achieved through evolutionary processes.

**Third, this formulation reveals a way for people to recognize more clearly**

### **how God is working in and through people and creation.**

Because Teilhard's examples are somewhat abstract or at least scientific, examples such as those dealing with human relationships make the dynamics involved in the attraction-connection-complexity-consciousness process easier to grasp. For example, two people find themselves *attracted* to one another; they form a *connection* or bond; that connection *complexifies* their lives; and to deal with that complexity they must enlarge their *consciousness* to integrate all that is happening within their relationship and within the larger world that their relationship affects.

Another common example might be a sports team. I feel an *attraction* to be part of that team; I join the team and am *connected* to the other players and the coach; these connections introduce *complexity* into my life, as I fit team practice sessions and games into my schedule and reorganize my week; I develop a wider *consciousness*, now that I have to learn all the strategies in the team's playbook and also deal simultaneously with the many personalities of my teammates and the coach.

With the addition of *attraction* and *connection* to complexity-consciousness, the evolutionary law clearly applies to the basic forces in physics. Gravity, electromagnetism, and nuclear forces are all forms of attraction-connection leading toward ever-higher forms of complexity. Through attraction and other forms of connection and symbiotic affiliation, life forms evolve from the simplest microorganisms into complex forms of plant and animal life.

In short, the *attraction-connection-complexity-consciousness* formulation makes clear how the cosmos as we know it could have developed from elementary particles of matter and photons of light, the only entities likely to have existed during the first few moments after the Big Bang,

to bring forth our Earth teeming with the astounding complexity and consciousness to be found in seven billion self-reflective humans.

**Fourth, in this expanded formulation, Teilhard's law becomes, in fact, a law of evolutionary spirituality and reflects in evolutionary language God's law of divine love.**

It seems clear that this evolutionary law of *attraction-connection-complexity-consciousness* may be used to characterize and explain the dynamics of the long history of creation, from the Big Bang and the formation of stars and galaxies to a planet covered with seven billion self-reflective human beings constantly interacting, daily generating new complexities and the demand for higher consciousness. This is the law that Teilhard sees as manifesting the creative work of God.

From an analysis of this generalized forward and upward evolutionary movement,<sup>35</sup> Teilhard was able to deduce this law governing the entire process. However, for Teilhard, God is a God of love, a God who initiated this creative evolutionary process out of love, and who wills that the fulfillment of this promise—the purpose for which God created the universe in the first place—would result in the grand union of all the billions of human hearts and souls that have ever lived, and will live in the future, all connected in the embrace of love with all creation, manifesting love for one another and for all of creation. For Teilhard, this energy of attraction manifested everywhere in the universe is love: “The physical structure of the universe is love” and “the manifestation of this fundamental power” reveals itself to our consciousness in several successive stages.<sup>36</sup>

Though evolution is as yet far from complete, the energy of love, for Teilhard (and for St. John and St. Paul), remains evolution's driving force at every stage of the evolutionary process, despite the negative forces that would diminish the effectiveness of that process.

From a theological standpoint, and certainly from a Christian perspective, love must be the basic energy driving evolution. Teilhard notes how, in his day, love, or Christian charity, was characterized as a kind of static virtue: the Lord commands us to love and so we do so in compassionate obedience to God's command. He notes:

To love one's neighbor was formerly to do him no injury and to bind up his wounds.

Henceforth charity, without losing any of its compassion, will attain its full meaning in life given for common progress.<sup>37</sup>

Teilhard's insights about the wide breadth of compassion we need to show to achieve this "common progress" for all living things lead directly to the insightful calls that Thomas Berry made in light of the environmental pressures on planetary life. In this vein, Berry writes:

Our most urgent need at the present time is for a reorientation of the human venture toward an intimate experience of the world around us. If we would go back to our primary experience of any natural phenomena—on seeing the stars scattered across the heavens at night, on looking out over the ocean at dawn, on seeing the colors of the oaks and maples and poplars in autumn, on hearing a mockingbird sing in the evening, or breathing the fragrance of the honeysuckle while journeying through a southern lowland—we would recognize that our immediate response to any of these experiences is a moment akin to ecstasy. There is wonder and reverence and inner fulfillment in some overwhelming mystery. We experience a vast new dimension to our own existence.<sup>38</sup>

In *The Divine Milieu*, Teilhard shows that his understanding of love continues to evolve. He begins to see love as the basic energy of evolution—from the love of sexual attraction, to the love of friendship and to groups devoted to a higher cause, to a love of all humanity in the sense of world unity, to a love of all creation on the planet, to a love of the universe—as love in a cosmic sense:

In the cosmos as I have described it here, it becomes possible, strange though the expression appears, to *love the universe*. It is indeed in this act that love can develop in boundless light and power.<sup>39</sup>

This final immense paroxysm of love, as envisioned and expressed by Jesus and St. Paul, will demand an all-embracing level of consciousness and the ability to act at such an all-embracing degree of loving requires a corresponding all-embracing degree or level of consciousness.

Thus, the law of *attraction-connection-complexity-consciousness* becomes a cyclical process.<sup>40</sup> Each new level of consciousness attained invites or reveals new attractions and new connections, hence new complexity and new consciousness. For example, a young man and a young woman are attracted to each other; they meet and bond; their lives become intertwined and they learn to see themselves as one, as a new unity. Within this level of consciousness, they find attractive the idea of marrying and raising a family; their baby will bring them to a new level of complexity, consciousness, and love. From there, their consciousness, if only in imagination, reaches outward and forward to the child's education, well being, and career.

The *attraction-connection-complexity-consciousness* cycle repeats at ever-higher levels of complexity and consciousness. New connections are almost always formed by attractions driven by various forms of love. Those positive attractions and connections are typically the first steps

or stages to higher complexity and consciousness. This is the law of evolution. It is the same as the law of divine love. Same law; different language.<sup>41</sup>

For Teilhard, love, as well as unanimity, is the necessary condition to bring about, in the noosphere, the magnificent synthesis that he calls "hominization." Mere social compression and technological organization of the planet is not enough. Teilhard writes:

Only union *through* love and *in* love (using the word "love" in its widest and most real sense of "mutual internal affinity"), because it brings individuals together, not superficially and tangentially but center to center, can physically possess the property of not merely differentiating but also personalizing the elements which comprise it. This amounts to saying that even under the irresistible compulsion of the pressures causing it to unite, Mankind will only find and shape itself if men can learn to love one another in the very act of drawing closer.<sup>42</sup>

**Fifth, this expanded formulation offers a structure for building daily spiritual practices, making major decisions, and discovering one's life purpose.**

If Teilhard's evolutionary law and God's law of love (which are essentially the same law, but formulated in different language) are the driving force of evolution as well as the driving force building the Body of Christ toward its fulfillment in Omega, it follows that this expanded formulation should provide a helpful guide for individuals and groups in aligning themselves with what God is doing in this evolutionary world. Using the law of *attraction-connection-complexity-consciousness*, people should be able to find ways to cooperate with and adapt God's evolutionary law to their lives: (1) in their daily choices, actions, and spiritual practices, (2) as a

discernment tool when making major decisions, and (3) to help identify one's unique life purpose(s).

### **In Daily Life and Spiritual Practices**

Individuals and groups can use the law of *attraction-connection-complexity-consciousness* in making daily decisions and creating spiritual practices. Although the following suggestions might not sound at all like traditional spiritual practices, in evolutionary terms they become very powerful and integral to an evolutionary spiritual life.

First, it is important for those individuals and groups to cultivate an *attractive* self, one that leads to connections. Conversation is often the primary tool that turns attraction into connection. Those who, in conversation, show genuine concern for the other and discover mutual interests attract others to themselves and form further connections with them. Behaviors and attitudes typical of critics, cynics, blamers, mere bystanders, and prophets of failure tend instead to alienate others.

Second, *connections* are fostered and enhanced by good listeners, by those who are understanding and compassionate, honest and trustworthy, faithful and forgiving, with a sense of humor, by those who can build mutually supportive relationships and enable each member and the group itself to make a positive contribution, by those who can affirm, encourage, and support others.

Third, rather than resisting change, people can welcome it along with the *complexity* that ensues. A positive attitude toward change can increase the complexity in one's life. Willingness to accept new assignments, to explore new technologies, to study new subjects, to meet new people widens one's world and challenges one's preconceived notions. Unwelcome events, such

as accidents, sickness, rejections, losses, financial problems, and interpersonal conflicts also introduce complexity into one's life. In the evolutionary spirit, individuals learn to treat these as experiences of learning and growth, opportunities to develop compassion, forgiveness, and creativity, capacities that are needed in an evolving world where examples of human diminishment are rampant.

Fourth, those who foster the first three elements of the evolutionary law in their personal and relational lives will be prodded to grow in *consciousness*, to become more aware of and sensitive to the needs and thinking of others. They will begin to recognize unquestioned assumptions that they hold; they will become more all-embracing of others' ways of thinking, more tolerant of the opinions and beliefs of others, more willing to forgive the flaws and faults of others. They will be able to see entire processes rather than just single events and will learn to make decisions based on the larger picture rather than on an isolated event.

Finally, while the energy of attraction among humans almost always begins at the interpersonal level, Teilhard also envisioned attraction as a global force toward socialization, a force that is acting everywhere among individuals and groups on our planet. His hope is that everything we do, personally and collectively, will somehow contribute to the final unification of creation in ever-deeper levels of complexity and consciousness and move creation forward and upward toward its Center in Christ-Omega. This highlights our need to commit ourselves to justice, freedom, respect, mercy, forgiveness, compassion and love—for humankind as well as for the whole of creation.<sup>43</sup>At the heart of matter, Omega Itself is an active presence attracting all of us and all of creation toward this final goal.

These are a few of the many ways that Teilhard's evolutionary law may be used in making daily decisions and in creating spiritual practices. Each of the elements of Teilhard's evolutionary law can be seen as an expression of the divine law of love.

### **In Making Major Decisions**

Those who wish and desire to contribute to God's evolutionary work in the world may also use Teilhard's law in its expanded form to discern God's will in making major life decisions, especially where there are two or more options available. These decisions might include choosing one's career, planning to marry, planning a family, making a major life change, dealing with sickness, accidents, or other forms of loss.

When faced with a major decision, an individual would try first to become aware of his or her sense of *inner attraction*. Does thinking about a certain choice bring inner joy or peace? Is this option interesting, intriguing, challenging? Will it evoke creativity? Next, when considering *connection*, individuals might ask which choice will encourage relationships and connections that will challenge them and support them in making a positive difference; which choice will add a richer and deeper *complexity* to their life. For example, if a person is facing a choice between two career opportunities, one choice might offer few challenges and require learning no new skills, while the other would challenge the person in novel ways and require learning new skills. In terms of *consciousness*, the question is which choice would challenge a person to be more sensitive to the needs of others and to let go of unwarranted assumptions.

### **In Identifying One's Unique Life Purpose**

If we assume that each person is God's gift to the world and that Divine Spirit is at all times giving life and meaning to every element of the divine milieu, then we can presume that Creative

Spirit has been working to provide the perfect environment, timing, and connections, so that each person can fulfill his or her unique role and purpose in building the Body of Christ (the evolving universe).

Then, by examining the *attractions* (and non-attractions) one feels; by reviewing the many *connections* that have helped shaped one's life, beliefs, attitudes, and values; by reliving in quiet reflection the *complexities* that challenge one to examine, adjust, and revise beliefs about oneself, the meaning of life, and other important fundamental issues; and realizing how one's *consciousness* has expanded and developed toward a commitment to new causes, values, and priorities, one can begin to clarify what one is meant to do and accomplish during his or her time on Earth.<sup>44</sup>

## **Summary**

I have found the expanded version of Teilhard's complexity-consciousness law quite useful. In this paper, written for seasoned Teilhardians, I have put most of my emphasis on showing how I believe Teilhard would have acknowledged the expansion in the wording of his evolutionary law from *complexity-consciousness* to *attraction-connection-complexity-consciousness*. The other four points show how this expanded formulation makes it easier to understand and to apply Teilhard's ideas more accessible and more applicable to one's personal life.

## NOTES

<sup>1</sup> Pierre Teilhard de Chardin, *The Phenomenon of Man*, trans. Bernard Wall (New York: Harper & Row, 1959), 60ff.

<sup>2</sup> I am deeply indebted to Robert L. Faricy, S.J. for many of the ideas and insights on Teilhard's thought contained in this article. Faricy and I were Jesuit friends living at Carroll House, a residence for Jesuit students at The Catholic University of America in Washington, DC. In 1969, I was also one of Faricy's students in a seminar on Teilhard. His doctoral thesis, one of the most thoroughly researched writings on Teilhard's thought, became the book, *Teilhard de Chardin's Theology of the Christian in the World* (New York: Sheed & Ward, 1967). In his book, Faricy shows how Teilhard's law of complexity-consciousness, over the years of his life, assumed an increasingly important place in his understanding of evolution.

<sup>3</sup> I explore these amendments to Teilhard's formulation in more detail in the following sources: *Teilhard de Chardin: The Divine Milieu Explained: A Spirituality for the 21<sup>st</sup> Century* (New York: Paulist Press, 2007); *The New Spiritual Exercises in the Spirit of Pierre Teilhard de Chardin* (New York: Paulist Press, 2013); and with Patricia H. Berne *Why Did God Make Me? A Step-by-Step Discernment Process in an Evolutionary World* (New York: Paulist Press, 2014).

<sup>4</sup> As Robert Faricy puts it, "A comparison between the main text of *The Phenomenon of Man*, finished in 1940, and its "Summing Up or Postscript," 300-310, written in 1948, is sufficient to indicate the progress of Teilhard's thought in the direction of a unification of his phenomenology of evolution around the central notion of the law of complexity-consciousness." See Faricy, *Teilhard de Chardin's Theology*, 40-57 and especially footnote 13 on page 41 for a description of that "progress." Since the "Summing Up or Postscript" is difficult to obtain, an alternative source is Pierre Teilhard de Chardin, *Man's Place in Nature: The Human Zoological Group*, trans. René Hague (New York: Harper & Row, Publishers, 1966), especially Chapter 1. This book was written in 1949. Also clarifying is the chapter titled "The Singularities of the Human Species," written in 1954 and found in Pierre Teilhard de Chardin, *The Appearance of Man*, trans. J. M. Cohen (New York: Harper & Row, 1965), 208-73.

<sup>5</sup> Pierre Teilhard de Chardin, "My Fundamental Vision," in *Toward the Future*, trans. René Hague (New York: Harcourt Brace Jovanovich, 1975), 166.

<sup>6</sup> See, for example, Brian Swimme and Thomas Berry, *The Universe Story: From the Primordial Flaring Forth to the Ecozoic Era—A Celebration of the Unfolding of the Cosmos* (San Francisco: HarperCollins, 1994), and more recently, a book-film-and-educational series, Brian Thomas Swimme and Mary Evelyn Tucker, *Journey of the Universe* (New Haven: Yale University Press, 2011).

<sup>7</sup> We also hear of mind-over-matter experiences in areas other than quantum physics. See, for example, Arthur S. Berger and Joyce Berger, *The Encyclopedia of Parapsychological and Psychical Research* (New York: Paragon House, 1991). For a personal story, see Jeffrey Mishlove, *The PK [Psychokinesis] Man: A True Story of Mind Over Matter* (Charlottesville, VA: Hampton Roads Publishing, 2000). Anecdotally, some researchers claim that by making simple affirmations daily ordinary people can achieve changes such as lowering rates of depression, lowering levels of distress, developing greater resistance to the common cold, attaining better psychological and physical well-being, reducing the risk of death from cardiovascular disease, and developing better coping skills during hardships and times of stress.

<sup>8</sup> See, for example, the classic book, Thomas Berry, *The Dream of the Earth*, rev. ed. (San Francisco: Sierra Club Books, 2006); also a recent tribute to Berry's innovative work exploring an ecological axis: Heather Eaton, ed., *The Intellectual Journey of Thomas Berry: Imagining the Earth Community* (Boston: Lexington Press, 2014).

<sup>9</sup> Teilhard, *Phenomenon*, 60-61.

- <sup>10</sup> Faricy, *Teilhard de Chardin's Theology*, 43.
- <sup>11</sup> Pierre Teilhard de Chardin, "Life and the Planets," in *The Future of Man*, trans. Norman Denny (New York: Harper & Row, Publishers, 1964), 109.
- <sup>12</sup> Faricy points out that Teilhard's development of the concept of the noosphere also took many years to mature. Although many think Teilhard first developed this concept in writing *The Phenomenon of Man*, completed around 1940, it was pointed out to me that Teilhard actually used the term much earlier in his 1923 essay "Hominization" published in *The Vision of the Past*, trans. J. M. Cohen (New York: Harper & Row, Publishers, 1966). To grasp the more important elements of his evolving thought on the noosphere, see the essay, Pierre Teilhard de Chardin, "The Formation of the Noosphere," in *Future of Man*, 158ff. Also, see Faricy, *Teilhard de Chardin's Theology*, 52.
- <sup>13</sup> Faricy, *Teilhard de Chardin's Theology*, 44.
- <sup>14</sup> Pierre Teilhard de Chardin, "Man's Place in the Universe," in *Vision of the Past*, 225.
- <sup>15</sup> Though this notion of socialization is one of Teilhard's great themes, nowhere in his writings does he develop a full treatment of this concept. The most important essays on this theme, however, may be found in *Future of Man*.
- <sup>16</sup> The *holon* is not a Teilhardian concept, but one taken from systems thinking, especially for describing wholes within wholes or, more precisely, holons within holons. The term *holon* was coined by Arthur Koestler, *The Ghost in the Machine* (New York: Macmillan, 1967), 48.
- <sup>17</sup> Teilhard does not use the "nesting" concept, but describes the same phenomenon in terms of grouping or what he calls "a movement of qualitative infolding (or arrangement, if you prefer) [of cosmic matter] upon itself." This "infolding arrangement" moves along the developmental axis of higher complexity and consciousness. See Pierre Teilhard de Chardin, "Does Mankind Move Biologically upon Itself?" in *Future of Man*, 251. Without using the concepts of holon and nesting, Teilhard also recognizes the nesting of the ideas of each human holon and each human group holon to be found nested in the larger holon of the noosphere, as "a state of organized interpenetration, in which each element is linked with every other." Teilhard here is more focused on the interacting and networking function of the noosphere, but the nesting idea is implied. See Pierre Teilhard de Chardin, "The Formation of the Noosphere," in *Future of Man*, 170-71.
- <sup>18</sup> Thus, in the principle "*union differentiates*," we meet another key Teilhardian insight. It is first expressed in *Phenomenon*, where he says, "whether we speak about the cells of a body, the members of a society, or the elements of any synthesis, union differentiates." Teilhard, *Phenomenon*, 262.
- <sup>19</sup> Teilhard, "Life and the Planets," in *Future of Man*, 124.
- <sup>20</sup> Teilhard, "Formation of the Noosphere," in *Future of Man*, 189.
- <sup>21</sup> *Ibid.* In a letter written to Lucile Swan late in 1935, Teilhard recognized the power and centrality of his insight, "*union differentiates*." He wrote, "My present topic is more and more *L'union différencie*. There is a full metaphysics, ethic, and mystic, contained in those three words." Cited in Lucile Swan, "Memories and Letters," in Neville Braybrooke, ed. *Teilhard de Chardin: Pilgrim of the Future* (New York: Seabury Press, 1964), 43.

- <sup>22</sup> I have chosen to use the word "connection" in the evolutionary formulation of Teilhard's law rather than "union" for two reasons. First, making a connection with someone or something is much more easily understood than is forming a union. Second, in English, the word "union" has connotations of labor organizations and other quite formal relationships; such formality is not a requirement for complexity-consciousness to develop. Complexity can and does develop more often in informal relationships, spontaneous meetings, short encounters, even unwelcome connections that happen through accidents, sickness, loss, and other experiences of diminishment. In a French-English dictionary, the French word for "connection" given in translation is "*union*."
- <sup>23</sup> Ilia Delio, "Evolution and the Rise of the Secular God," in Ilia Delio, ed., *From Teilhard to Omega: Co-creating an Unfinished Universe* (Maryknoll, NY: Orbis Books, 2014), 49.
- <sup>24</sup> Teilhard, "Life and the Planets," in *Future of Man*, 123.
- <sup>25</sup> Teilhard, "Directions and Conditions of the Future" in *Future of Man*, 245. In this same citation, Teilhard talks about *attraction* from a very different perspective, as the gravitational pull of the future, the attraction that Omega exerts on the current evolving state of the universe, or more specifically, the current state of humankind. This second perspective on attraction only reinforces its centrality in all stages of evolution.
- <sup>26</sup> The *attraction* of everyone and everything is in a process of convergence toward the divine Omega. See, for example, Pierre Teilhard de Chardin, "The Directions and Conditions of the Future," in *Future of Man*, 237-241 and Teilhard, *Phenomenon*, 268-72.
- <sup>27</sup> Teilhard, "The Directions and Conditions of the Future," in *Future of Man*, 245.
- <sup>28</sup> Often great thinkers develop their ideas more fully only eventually and through interaction with others. A most obvious example might be Einstein's special theory of relativity that he eventually evolved into his general theory of relativity. In Teilhard's case, for example, his book of spirituality, *The Divine Milieu*, never mentions the law of complexity-consciousness. Yet, I have found that it becomes much easier to understand and apply his ideas on spirituality found in *The Divine Milieu* by starting out with the *attraction-connection-complexity-consciousness* law.
- <sup>29</sup> "Man is not simply a new species of animal (as we are still too often told). He represents, he initiates, *a new species of life*." Pierre Teilhard de Chardin, "The Reflection of Energy," in *Activation of Energy*, trans. Rene Hague (London: William Collins Sons & Co Ltd, 1978), 325.
- <sup>30</sup> The law of *attraction-connection-complexity-consciousness* would seem to fit with the three accepted mechanisms of evolution: natural selection, sexual selection, and symbiosis.
- <sup>31</sup> Thomas M. King, *Teilhard's Mysticism of Knowing* (New York: Seabury, 1981), 104-5.
- <sup>32</sup> Delio, "Evolution and Rise of the Secular God," 49.
- <sup>33</sup> Both natural selection and sexual selection were evolutionary processes proposed by Charles Darwin in his book *On the Origin of Species*. For symbiosis as the primary source of new species, see Lynn Margulis, *Symbiotic Planet: A New Look at Evolution* (New York: Basic Books, 1999) and Lynn Margulis, Dorion Sagan, and Lewis Thomas, *Microcosmos: Four Billion Years of Microbial Evolution* (Berkeley, CA: University of California Press, 1997).

- <sup>34</sup> Although Teilhard explores his idea of Omega in many of the essays in *The Future of Man*, his passionately Christian interpretation of his awareness of Omega as the supra-personal center of the evolving universe is best articulated in Part Three of *The Divine Milieu*.
- <sup>35</sup> Teilhard acknowledges that, because of randomness in the evolutionary process and times of collective human diminishment, there may be apparent periods of devolution. (Some would say that because of humanity's abuse of Earth's ecology we are currently in one of those devolutionary troughs.) Nevertheless, over millennia the evolutionary curve moves steadily forward and upward. Even human suffering and the Cross can be a vehicle for forward and upward progress. See Teilhard, *Divine Milieu*, 103-4 and Pierre Teilhard de Chardin, "The New Spirit," in *Future of Man*, 93.
- <sup>36</sup> Pierre Teilhard de Chardin, "Sketch of a Personal Universe," in *Human Energy*, trans. J. M. Cohen (New York: Harcourt Brace Jovanovich, 1962), 72.
- <sup>37</sup> Pierre Teilhard de Chardin, "Christianity and Evolution," in *Christianity and Evolution*, trans. René Hague (New York: Harcourt Brace Jovanovich, 1971), 92.
- <sup>38</sup> Thomas Berry, "An Ecologically Sensitive Spirituality," in *Sacred Universe: Earth, Spirituality, and Religion in the Twenty-First Century* (New York: Columbia University Press, 2009), 132.
- <sup>39</sup> Teilhard, "Sketch of a Personal Universe," in *Human Energy*, 83-84.
- <sup>40</sup> Teilhard refers to the cyclic nature of the complexity-consciousness law, especially as seen in the noosphere, when he says the noosphere "conforms to the general law of recurrence which leads to the heightening of consciousness in the universe as a function of complexity." Teilhard, "Planetisation of Mankind," in *Future of Man*, 136. The entire essay powerfully describes the evolutionary effects of cultural heredity, efficient inventions, and human creativity in general.
- <sup>41</sup> It would take another essay to fully develop this connection. Faricy writes: "Beginning in 1931, Teilhard is occupied for a decade in working out a general scientific phenomenology of *love as the energy of evolution* [my emphasis]. Love is described as the strongest, most universal, and most mysterious of cosmic energies. The cosmic energy of love is, in essence, the attraction of each element of the universe by the term of universal evolution, Omega; it is the primitive and universal psychic energy." Faricy, *Teilhard de Chardin's Theology*, 186. See also Teilhard, "The Spirit of the Earth," in *Human Energy*, 32.
- <sup>42</sup> Teilhard, *Future of Man*, 244-45.
- <sup>43</sup> See, for example, *Phenomenon*, 291-2; "Turmoil or Genesis? 1947," in *Future of Man*, 226-9; *Divine Milieu*, 122.
- <sup>44</sup> A detailed process for doing this four-stage reflection and discernment is offered in Savary and Berne, *Why Did God Make Me? A Step-by-Step Discernment Process in an Evolutionary World* (New York: Paulist Press, 2014).

# An Invitation

Membership in The American Teilhard Association is open to all who wish to join in our work of shaping a future worthy of the planet Earth, of ourselves and of our children.

A brochure describing our purpose and programs will be sent in response to requests mailed to John Grim, 29 Spoke Drive, Woodbridge CT 06525. Interested parties can also e-mail [tcmk@aya.yale.edu](mailto:tcmk@aya.yale.edu)

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