

The world's Call for Sustainability and Sustainable Development: A Prediction of Teilhard

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Summary

Teilhard De Chardin's coexistence model of religion and science placed evolution in a theological context. This is settled within God's belief and love. As a priest and scientist, he saw science as a potential source of divine truth. He posed the following questions in his philosophy: What happens as we gain a better understanding of evolution, and what if today's rapidly changing trends contradict De Chardin's faith model? Could he then either maintain his faith position, which appears to be no longer integrated with modern science, or abandon it? Will he have to abandon his religious beliefs entirely? This appears to be either unacceptable or implies that such integration is impossible. In today's world, the consequences of inaction are now visible in major cities around the world. Heavy rains swollen rivers, washing away people's homes; as a result, many people have lost their homes and lives. Today's children are subjected to higher temperatures than their grandparents. Climate change is lengthening the dry season and increasing the likelihood of drought. Humans claim priority over other living species from an anthropocentric standpoint. This point of view is expressed in the Rio Summit's 1992 "Rio Declaration on Environment and Development," where the phrase "common but differentiated responsibility" appears. The statement identifies humans as the source of environmental problems as well as the beneficiaries of a healthy and productive life. The increase in the number of "free riders" can be attributed to the fact that no one appears to be to blame for the problems. Sustainable Development (SD) strives to strike a balance between the preservation of ecosystems and human needs. Moving toward a holistic SD requires balancing the environment, the economy, and social sustainability. The goal of environmental sustainability is to keep human activities within the carrying capacity of the earth's natural resources (such as water, fish, energy and land). Rather than commodifying natural resources and maximizing market value, economic sustainability is concerned with the wise use of nature's resources to increase operational profit. The (social) well-being of those who benefit from earthly resources is central to social sustainability. It focuses on raising public awareness and cohesion, encouraging participation, and utilizing local labor and businesses. According to De Chardin, as creatures grow more complex, they become more conscious. We will eventually reach a state of consciousness, and this evolution will include biological, human, and moral or spiritual aspects. This evolution has culminated in the person of Jesus Christ. Humanity has a promising future on Earth, and evolution is central to this message. The evolutionary process, according to De Chardin, is not complete, and Christianity should seek God's goal for humanity through the creative process of evolution. The goal, he claims, was for humanity to evolve toward Christ as the ultimate example of evolutionary perfection. He refers to this as the 'Omega Point,' or the cosmic Christ, as evolution's ultimate destination. Everything is affected by the holy spirit, who

dwells with creation and is the source of dynamism. As elements of creation, our perfection, interest, and salvation can only be to continue this evolution with all of our strength from that point forward.

1. Introduction

Teilhard De Chardin's integration model of religion and science going together, set evolution within a theological framework. This settles within the belief and love of God. As a priest and scientist, he saw science as a potential source of divine truth.

Making such a scientific theory into an article of faith was one of the drawbacks of his approach because science develops and changes all the time. Thus, at some point we are tempted to question what happens when we develop our understanding of evolution and what if the rapidly changing trends of today's world doesn't fit with De Chardin's model of faith? Could he then be in a position where he will either maintain his faith position that seems no longer integrated with the modern science? Or, will have abandon his faith position completely? Either seems unacceptable or suggests that this kind of integration is unattainable. Furthermore, we could have the issue with the scientific theory dictating what he believed rather than the religion. Implying that religion no longer had authority, but science.

Several decades after De Chardin defended his thesis of the coexistence of science and religion, the world has evolved tremendously with science and technology being its main drivers. De Chardin, born on May 1st, 1881, saw the world transitioning to the third industrial revolution (consisting of automation, computers, and electronics) in 1969. His birth certainly saw that the world from 1784 – 1870 had transitioned from the first industrial revolution (mechanization, steam power, weaving loom) to the second industrial revolution (mass production, assembly line, electrical energy). Today, we are in the fourth industrial revolution where topics like cyber physical systems, internet of things, big data, Artificial intelligence, etc. are on the rise. Most importantly, is the world's concern of how far humanity has selfishly lived and used nature's resources to arrive at its present development level.

There are several calls for sustainability and sustainable development for future generations to benefit from wonders of nature. The current global level of consciousness couldn't have been obvious if the world was not shortsighted on the excessive use of nature's resources beyond its replenishment capacity. Thus, we might ask, could De Chardin have been a whistle blower about our unconscious rapid use of nature's resources? Could he have foreseen that today's generation would have evolved towards a planetary thinking network that will spread and deepen over the limited surface of the whole earth?

The consequences of inaction are already visible in major cities around the world. Migrants are filling the slums of urban cities. Rivers have been swollen by heavy rains, washing away people's homes, and many have lost their homes and lives as a result. Global warming of 1.1 to 1.3% has already changed the lives of many city dwellers, particularly the urban poor. Reason why many persons are migrating to cities.

Future climate scenarios predict that a rise in current levels of surface temperatures will affect everyone, including wealthy cities and wealthy countries. The main nature of humankind's greed has been highlighted by the continuous use of natural resources without regard for future generations. Children born today are subjected to more extreme temperatures than their grandparents.

Cities that are hotter than their surroundings are more vulnerable to flooding. The effects are exacerbated by the density of population in these cities. Some cities may be unprepared for the changes ahead, but they have the resources to adapt. Small-scale farmers are particularly vulnerable to climate change. Climate change is making the dry season longer and more prone to drought. Droughts could last for longer periods of the year in Northern Africa.

Climate modeling can show us the weather, but it cannot show us how it affects society. Established migration patterns may change, and climate disasters may worsen. Reasons why people cross borders within countries and more people migrate to cities. Climate change-related displacements could affect tens of millions of people.

2. The Tragedy of Commons

As population increases across the world, there could be more competition for few resources. The biologist, Garret Hardin (1968) uses a good example; “where many herders may graze their cattle” (Hidefumi Imura, 2013, p. 85). Everything is normal when the number of cattle is small. As the number of cattle increases, the grazing capacity of the land (pasture) drops simultaneously. As these changes progress and exceed the threshold, the damages become irreversible.

A similar scenario drawn from Imura (2013) indicates that no problems are observed when one factory disposes its waste into the environment. When many factories operate in a similar manner, the pollution might exceed the environmental capacity of the area (land or river), thus affecting not only the inhabitants(residents) of the area but the factories’ operations. In these scenarios, we identify grazing/production as subject and pasture(land)/atmosphere(environment) as an object. It is worth noting that both, object and subject are “commons”.

The peculiarity of these (two) scenarios rest on the fact that; the subject uses the object excessively till a critical point is reached. At, critical point, the damage becomes irreversible, introducing the context of “The tragedy of commons”. According to Imura, three factors account for the extreme use of the object; “a system of free access,” “externality,” and “short-sighted self-interest” (2013, p. 86). Based on the term context of usage, I will introduce a fourth-factor “Frequency of use”. Through the fourth factor, time is seen as another dimension, where, there could be a possibility of replenishments, yet excessive use doesn’t enable the system to be restored to an initial state.

Subjectively, “Commons” could signify everyone and no one. Ownership is seen as a vital aspect as it is either well known (locally or globally) or unknown. Taking it from, either way identifies how the subject perceives the object. Thus, as the management structure is not clearly defined, it causes anyone to act as they wish. In the aforementioned scenarios, no one owned the pasture land or environment, yet everyone is freely acting on it. In the case of Hardin, if the pasture had an owner, there would have been some restrictions of access(use) on the land. Imura posits that in

order to mitigate such an issue, the owners of the system (structure) need to identify and entities depending on the commons need to share the rules for management, introducing the concept of policies, laws, and treaties related to environmental protection (2013, p. 86).

Individuals depending on commons could be affected either directly or indirectly. The impact could be in the absence of an economic transaction. In the case of the factories dumping wastes into the environment, the practice impacts the health of local residents around the factory. The impact grows to levels that stop the operations of the factories.

From an anthropocentric perspective, human beings claim to have priority over other living species. This view can be seen in the “Rio Declaration of Environment and Development” of the Rio Summit in 1992, stated as

“Human beings are at the center of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature” (United Nations Environmental Programme, 1992 as cited by Hidefumi Imura, 2013, p.88).

The statement identifies humans as to cause environmental issues and beneficiaries to a healthy and productive life. The Norwegian Philosopher, Arne Naess criticizes this context with his concept of “deep ecology” (Naess A, 1989 as cited by Hidefumi Imura, 2013, p. 89). He argues that mass consumption, the subjugation of nature, the chasing of fads that modern civilization has wrought could be liberalized by reforming humans' internal attitudes allowing them to realize that species within the biosphere are equal – ecocentrism. Thus, through “proactive environmental education and provision of improved information” (Hidefumi Imura, 2013, p. 86), the behavior of humans based on short-sightedness could be prevented.

Irrespective of the identity (known or unknown) of the users of the system, time becomes a factor when the resource is utilized beyond its regenerative capacity. The number of users could be included in this dimension because the carrying capacity of the environment over a period of time also depends on the number of users. A large number of users always make it hard to arrive at a conclusion on the management rules of the system.

To an extent, the growth in the number of “free riders” results from the fact that no one seems to be responsible for the problems. This issue is evident in the conflicting interests of developed and developing countries in the management of global commons (atmosphere and oceans). International treaties and agreements try to address this issue of vital importance. The Rio Declaration and framework Convention on climate address the issue with the statement “Common but differentiated responsibility” (World Commission on Environment and Development, 1987 as cited by Hidefumi Imura, 2013, p.87). Thus, irrespective of who has greater responsibility, the entire international community shares some responsibility.

3. Theoretical Basis of Sustainable Development in De Chardin’s Philosophy

For the past two decades, there has been a particular focus on Sustainable Development (SD) across the world. The Brundtland Commission report (1987) defined SD as seeking

“to meet the needs and aspirations of the present without compromising the ability to meet those of the future” (WCED, 1987).

However, meeting SD thresholds has been a great challenge due to limitations imposed by social issues, advancements in technology and ecosystem’s capacity to accommodate human carbon footprints (T.O. Olawumi & D.W.M Chan, 2018). The terms sustainability and sustainable development though complex(in context) and different(in meaning), are very often used interchangeably. From a policy perspective, sustainability aims at preventing the depletion of natural resources (R. Axelsson et al., 2011). It includes issues of ecological integrity, biodiversity conservation or ecological sustainability (J. Parrotta et al, 2006, Ramakrishnan, 2001). SD, on the other hand, is a more collective societal process which aims to meet economic, ecological and socio-cultural goals by multiple stakeholders with different powers at distinguished various levels of decision making (R. Axelsson, 2011). In essence, SD steers towards creating a balance between ecosystem preservation and meeting human needs (T.O. Olawumi & D.W.M Chan, 2018). Thus, moving towards a holistic SD involves balancing its three pillars: Environment, economic and social sustainability.

Environmental sustainability focuses on limiting human activities undertaken within the carrying capacity of the earth’s natural resources (such as water, fish, energy and land). Emphases are placed on the quality of human life(air quality and human health) prevailing in the places where it is inhabited. On the other hand, economic sustainability doesn’t end at commodifying the natural resources and maximising market value, it is concerned with the wise use of nature’s resources to enhance operational profit. It adopts the substitution of natural resources with man-made resources, and (to a greater extent) the reuse and recycling on natural resources within the planet. Social Sustainability addresses the (social) well-being of the population benefiting from earthly resources. It creates a balance between individual needs and the needs of the population(equity). It emphasizes on public awareness and cohesion, participation, and utilisation of local labors and firms (T.O. Olawumi & D.W.M Chan, 2018).

How much more time did we need to come to the realization of a sustainable development? Could De Chardin have predicted that today's generation would evolve into a planetary thinking network that would spread and deepen across the entire earth's limited surface?

De Chardin’s approach reconciled evolution and religion. For De Chardin, evolution is a divinely build process with its own in-build dynamics. It is not a product of random mutation, struggles and survival, but a convergence of the world towards and ever greater unity in Christ. His broad and deeper vision on evolution ponders on St Paul’s letter the Colossians,

“He (Christ) is the image of the unseen God, the first-born of all creation, for in him were created all things in heaven and earth.” (Colossians 1:15)

Cosmogogenesis as used by De Chardin describes the process of God creating the universe through the process of evolution. His approach further reflects on John the evangelist’s mysticism of creation,

“In the beginning was the Word: The Word was with God and the Word was God. Through him all things came into being, not one thing came into being except through him.” (John1:1&2)

Here the universe is not been created, it is being created. It migrated from the development of matter in its simplest forms as atoms, through to the most complex beings we see today. However, it doesn't stop at the physical creation of humankind.

His hypothesis tested on fossils that existed over 16 billion years ago, provided a reasonable answer these changes revealed as well as the similarities identifiable between different branches of evolution. Evolutionary development can be traced from atoms, cells, to the simple forms of life and eventually to humans.

For De Chardin, evolution right from the beginning has been complex, united in diversity, inter-dependent, and conscious. Here complexity refers to material complexity. Unity is the unity of matter and spirit into life, the unity of inner-consciousness of the self and outer-consciousness of the fundamental relationship of self to all others and the entire universe, and finally the unity of intimate fellowship between Creator and all of His creation.

As you progress up the evolutionary ladder, where humanity is at the top, the complexity grows. This is not due to their physical nature, but rather to the increasing complexity of human beings, which has resulted in conscious existence. The high point of this development is the person of Jesus Christ. De Chardin posited that the more complex creatures become, the more conscious they become. For De Chardin, we are eventually evolving towards a level of consciousness. Evolution embraces the biological, the human and moral or spiritual.

De Chardin saw humanity as having a positive future on earth and evolution was central to this positive message. He says,

“The phrase ‘Sense of the Earth’ should be understood to mean the passionate concern for our common destiny which draws the thinking part of life ever further onward. In principle there is no feeling which has a firm foundation in nature, or greater power. But in fact there is also no feeling which awakens so belatedly, since it can become explicit only when our consciousness has expanded beyond the broadening, but still far too restricted, circles of family, country and race, and has finally discovered that the only truly natural and real human Unity is the Spirit of Earth.” (De Chardin, 1958)

He posited that the evolutionary process is not finished, so Christianity should seek God's goal for humanity by the creative process of evolution. The goal was to evolve towards Christ as the ultimate example of evolutionary perfection. There is a point at which the whole evolutionary process will have its fulfillment. He calls this the final destiny of evolution, the ‘Omega Point’, that is the cosmic Christ. He states,

“The great cosmic attributes of Christ, those which (particularly in St John and St Paul) accord him a universal and final primacy over creation, these attributes... only assume their full dimension in the setting of an evolution... that is both spiritual and convergent.” (Catholicism and Science, 1946, IX, 189)

This implies that evolution is in the life of Christ and there is a dynamic force inherent in physical structure which eventually manifests as a radial love energy. Everything is under the influence of the holy spirit who dwells with creation and is the source of dynamism. Furthermore, the influence of the spirit's radial energy causes increasing complexity which leads ultimately to human personality, the apex of it which is human love. The spirit charts a path which begins at this alpha point of primal matter and ends up in the Omega point of human salvation. De Chardin further posits,

“Human Energy presents itself to our view as the term of a vast process in which the whole mass of the universe is involved. In us, the evolution of the world towards the spirit becomes conscious. From that moment, our perfection, our interest, our salvation as elements of creation can only be to press on with this evolution with all our strength. We cannot yet understand exactly where it will lead us, but it would be absurd for us to doubt that it will lead us towards some end of supreme value. From this there finally emerges in our twentieth century human consciousness, for the first time since the awakening of life on earth, the fundamental problem of Action. No longer, as in the past, for our small selves, for our small family, our small country; but for the salvation and the success of the universe, how must we, modern men, organize around us for the best, the maintenance, distribution and progress of human energy?” (De Chardin, 1958)

For De Chardin, the spirit has enabled man to reach the Omega point of which Christ himself is the human manifestation. This is because of its final destiny of ‘Christification’ all matter is sacred. He states,

“The Heart of Christ at the heart of matter.” (Letter to Jeanne-Marie Mortier, 30 October 1948, *Lettres: Jeanne Mortier*, 48)

Christ' human nature provided his anchor within the world while his divine nature allowed him to act in the world without being confined by it. With this notion, De Chardin anticipated that the universe was intended to produce conscious life and through evolution, the planet is growing a new organ of consciousness which he refers to as Noosphere – the sphere of conscious communication of human life. Christogenesis, the sphere of brotherly love between human beings is where the Omega point is found. This is God's ultimate plan for evolution.

Eventually, De Chardin believed via his model, that we will evolve towards a planetary thinking network that will spread and deepen over the limited surface of the earth, thus the call for sustainability and sustainable development.

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