

Understanding Inherent Interconnectedness, Co-existence and Self-regulation in Nature (Existence) and their Implications Leading to a Holistic Worldview

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Abstract

All human beings inherently aspire for happiness, prosperity and its continuity both within us and with the outside world which includes other human being and the rest of Nature. But, at the same time most of us feel contradiction in themselves and it is common to see such a wide-spread conflict, violence and strife at every stage, not only in human-to-human interactions but also in human-to-Nature interactions. This way most of us are forced to live in contradiction. What is the way out of this dilemma, we are aware that great visionaries have proclaimed that there is an inherent unity in the Universe under the apparent diversity. If this be the real truth then, the important question arises – How can we facilitate the understanding and realization of this truth? If we can move in that direction, it will be really a tangible progress towards promotion of peace and harmony. The present investigation is dedicated to this objective whereby an attempt is made to explore various sources and evidences which include direct observations, the study of ecology, the Gaia theory, the implications of some revolutionary developments in modern sciences and finally, the understanding emerging from spiritual philosophical domains. All these sources tend to strengthen the conviction that there is inherent interconnectedness, self-regulation and co-existence in entire Nature/Existence of which the human being is an integral constituent. It also highlights an important fact that the human species can fulfil their role in this harmony only after proper understanding and realization of this truth.

Keywords: Inherent harmony, Interconnectedness, Co-existence, Self-regulation

Introduction

It is clearly visible that all human beings are inherently aspire for happiness, prosperity and its continuity. It is natural for everyone to live in peace and harmony within ourselves and with the rest of the nature. Universally most of the philosophers and enlightened beings accept that the whole purpose of the life is to achieve happiness. In spite of making a lot of efforts in this direction, various problems in society are still visible. For example, one in four people is suffering from mental disorders leading to ill health and disability worldwide^a, families values are eroding globally [1] which is impacting children well-being [2] and finally society. We have also been witnessing that lethal weapons including nuclear stockpiles are continuously growing [3] in the name of peace & harmony. These are capable of destroying the life on this planet many times. More often than not, attainment of peace and harmony proves quite elusive. On the other hand, all

^ahttp://www.who.int/whr/2001/media_centre/press_release/en/

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the great thinkers and philosophers like Mahatma Gandhi [4], Swami Vivekananda [5], Fritjof Capra [6], Dalai Lama [7] etc have proclaimed again and again that there is an inherent unity, interconnectedness and co-existence in Nature or in entire existence.

It may be easily appreciated that unless this dichotomy is adequately resolved in the minds of the people and unless all our actions are in consonance with the 'truth' of interconnectedness and co-existence, there cannot be any tangible progress towards peace and harmony.

Therefore, if it is really true that there is an inherent harmony and co-existence in Nature of which the human being are the integral and significant constituents, then it becomes utmost important to evolve and promote ways and means to facilitate the human beings in gaining such an understanding and realization of this truth. Only then, their behavior with other human being and interaction with Nature will be conducive to promote peace and harmony. And if it is not true and 'survival of the fittest' is the real law then there is no hope of establishing peace and harmony in the society.

'Appearances are often deceptive' is a well-known proverb. This is so true in regard to our normal perception about reality. The human perception about the nature of Existential Reality greatly affects all our goals, pursuits and relationships, social structures and policies. In fact, whole gamut of human activities which in turn, determine human happiness.

In this paper, an attempt has been made to draw attention to a few very significant characteristic of the Existence, a proper understanding of which would lead to a holistic worldview. It is indicated that such an understanding is supported from multiple diverse sources of knowledge or field of explorations which include the ecological studies, scientific developments such as Quantum theory and also age-old intuitive modes of perception adopted by the spiritualists, philosophers, saints, and seers. Some of these features are also amenable to direct observation by people if properly pointed out.

In the light of the above present work is a humble attempt in this direction whereby an effort is made to explore various arguments, evidences and ways which enable us to see the inherent harmony and co-existence more clearly.

Some description of relevant sources

As discussed in the previous section there is a strong need to discover whether interconnectedness, co-

existence, and self-regulation inherently exist in Nature or not? If this exist, then, how can this understanding be facilitated among human beings? Because, realizing this inherent interconnectedness by human beings and living in accordance with it, opens the path to peace and harmony. Thus, it becomes very significant to explore the sources through which this could be achieved and become our culture. In this section, we have studied various sources from ecology, modern science, philosophy, and spirituality and drawn some conclusions which indicate that there is an inherent interconnectedness in Nature in addition to direct observations.

Learning from Ecological Studies

Ecology is a branch of science concerned with the interrelationship of organisms and their environments^b. Ecology can be further classified as animal ecology, plant ecology, insect ecology, forest ecology, and marine ecology and so on. Thus, the study of all these ecologies give a clear picture of interconnectedness and co-existence.

"Everything is connected to everything else" is one of the four laws of ecology given by Barry Commoner, a famous founder of environmental movement [8]. For example, it has been shown in a study that those plants which had seabirds in islands grew taller and faster and were better in quality than those without birds [9]. In addition, in many cases, birds play an important role in ecosystems which have such consequences which are incredibly important in the overall functioning of various ecosystems^c. Brotkin and Keller [10] called this interconnectedness as "environmental unity" and explained why one can never do "just one thing". Sometimes it seems that some species have no useful purpose in the nature like a mosquito. It seems that they are blood sucking nuisance. But interestingly, according to one article without mosquito there will be a predator without prey or plant without a pollinator. Mosquitoes have been on this Earth for more than 100 million years and co-evolved with so many species along the way [11]. In one study it has been shown that the birds produced on average two chicks per nest after spraying microbial mosquito-control agent compared with three of birds at control sites [12]. There are numerous case studies in ecology which show interconnectedness in Nature. There are an abundance of species because of highly affected by direct positive interactions within the plant community, not because of abiotic conditions and competition. In fact, there is a deeper level of interconnectivity and interdependency among plants than currently we thought [13]. Numerous studies show that there is an increase in positive effects when abiotic stress increases [14 – 16] which explains the interconnectedness and self-regulating nature of the Earth.

^b <https://en.wikipedia.org/wiki/Ecology>.

^c <http://www.environmentalscience.org/birds-ecosystem-services>.

James Lovelock, who is a famous environmentalist, is best known for his hypothesis which is known as the 'Gaia Hypothesis'^d. He hypothesized the Earth as a single organism which self-regulates itself. The physical components (air, soil, water...) and living organisms together form a complex system which interacts with each other in a manner to ensure the conditions which are essential for the sustenance of life on the Earth. In his book titled as "Gaia: A new look at life on earth"[17], he has given many examples which show self-regulating nature of the earth. For example, the Earth's mean temperature has never been varied by more than a few degrees from its current level although it is spinning continuously in front of the uncontrolled radiant heater, the sun, about three and a half aeons^e ago. Similarly ammonia and acidic are in the balance and the rain is neither too acidic nor too alkaline because things are self-regulated and the effect of one event is balanced by other event. Scientific evidences given by him shows that deeper level of interconnectedness which leads to self-regulating nature of the Earth. For example, from a chemical viewpoint, the dominant gas of the air is oxygen. It provides the chemical potential difference wide enough for birds to fly and for us to run and deep warm in winters. Nearly all the oxygen produced by photosynthesis in green plants and algae is cycled through the atmosphere and used up in that other fundamental activity of life, respiration, in a relatively short space of time. This complementary process can obviously never yield a net increment in oxygen. Ecosystem components are connected like a woven fabric if one string is pulled then the effect can be seen on another string immediately or later.

The above ecological studies as well as the Gaia theory indicate towards a deeper level of interconnectedness and self-regulation or a dynamic orderliness in Nature even without the intervention of human beings. Thus it points towards the fact that there are inherent laws, which are making orderliness in Nature. Every unit, except the Human Being, is participating to ensure orderliness in Nature. Moreover, every unit is existing with its definite role, without fail, working towards orderliness or self-regulation. No unit, it does not matter whether we can identify its importance or not, exist without participation which could be clearly seen through evidence given by James Lovelock and many other ecologists. All evidence also exhibit strong interconnectedness through which every unit is getting feedback about its surrounding and correcting itself to ensure coexistence of all (including living and nonliving).

Learning from Modern Science Studies

The development of modern science in its earlier phase

was based on the classical Newtonian-Cartesian worldview which visualized the universe in the form of a set of hardcore, independent entities forming a sort of giant machine and there was no tangible interaction between mind and matter. However, a remarkable transition in such a simplistic visualization of the reality was necessitated in the course of revolutionary development in modern sciences during the 20th century such as the theory of 'Relativity', the 'Quantum' theory and several other such developments in bio-sciences. The study of sub-atomic regime challenged the Newtonian vision or the common sense view of Nature and a new paradigm pointing towards interconnectedness of all the things including the observer and the observed leading to a more holistic worldview. In this section, we shall try to highlight the salient features of this emerging paradigm from the quarters of modern science itself depicting the interconnectedness.

According to Fritz of Capra[18], the whole world is an interconnected whole rather than consisted of component parts. Thus, there is a need to replace linear thinking into web structure thinking in order to understand the reality in a better manner. He advocated that this view must be imported into common sense in our daily life. By this way, he has drawn attention to interconnectedness, co-existence and the system view of the universe. According to quantum theory, this universe cannot be understood as isolated entities and must be thought in terms of their interrelations. Ultimately, we have to understand the whole universe as 'a single undivided whole' [19]. David Bohm[19] states, the world is an "unbroken wholeness", everything is non-locally interconnected. We need to develop a holistic perception because our world and the entire universe is interconnected. In quantum physics, we can understand the interconnectedness of this universe with Non-Locality effects; it means that one particle could be influenced by another distant particle instantaneously without anything passing between them, faster than light^f. In the same direction, Biologist Rupert Sheldrake [20] represents the interconnectedness in the form of a term 'Morphogenetic Field'. According to this theory, there is a field of consciousness for a given species. The more members of a species that exhibit a certain trait, or vibrate to a certain consciousness, the easier it becomes for all the other members of that species to 'entrain' with that trait or consciousness. Many examples are given in this direction which shows that somehow same species are interconnected with each other. Moreover, this whole universe can be akin to a kind of hologram[21]. This theory depicts that every particle of this universe has the information about the rest. In other words, what we perceive as a world "out there" brimming with discrete

^dhttps://en.wikipedia.org/wiki/James_Lovelock

^eIn scientific usage, an aeon represents 1,000 million years.

^fMicrocosm and macrocosm are two aspects of a theory developed by ancient Greek philosophers to describe human beings and their place in the universe.

objects, is nothing but the imprecise reflection of the deeper, unified reality that give rise to it. It also implies that because every particle has information about the whole, the self-regulation of this whole Universe, not only in the Earth, is possible. Moreover, if we consider this theory true (which also seems true) then we can say that the impression of the whole universe is also exist in every human being. Because of this impression human has innate desire to know about Universe and also has potential to explore the Universe.

Thus, the above study shows that the implications of various revolutionary developments in the modern scientific domains are also decisively pointing out in various ways, the inherent interconnectedness, self-regulation as well as the holographic characteristic of the Universe which, if further investigated and understood in more detail can be instrumental in changing the classical worldview. This will not only facilitate people towards an appreciation of a co-existential reality of which all human beings are an integral part but will also drastically influence the scientific research.

Learning from Spirituality, Philosophy, and Mysticism

The domains of spirituality and mysticism have been traditionally strong votaries of the inherent interconnectedness of the Universe. Spiritualists usually say that the dichotomy, conflicts, and strife which are widely observed among human beings is primarily a result of their illusory perception or wrong understanding which make them see the world as fragmented. Few selective sources indicating towards inherent interconnectedness are discussed below.

Exploration on inherent interconnectedness could be initiated from Microcosm and Macrocosm^g. Cosmos means, a beautiful, harmoniously arranged parts of any organic system. "The analogy between the macrocosm, the world or universe as a whole, and the microcosm, the human being (usually "man" in the historical record) as an epitome of the world, originated among the ancient Greeks. Which was proved to be a powerful and enduring symbol of the unity of creation"[22]. Ayurveda says "Purusho'yamlokasannidaha"—"Man is the epitome of the universe"[23]. When you know man you know the universe. According to Ayurveda "All material and spiritual phenomenon of the universe are present in the Individual." Similarly, "all those present in the individual are also contained in the universe." In addition, "The basic premise of Ayurveda is that the entire cosmos or universe

is part of one singular absolute. Everything that exists in the vast external universe (macrocosm), also appears in the internal cosmos of the human body (microcosm). The human body consisting of 50-100 million cells, when healthy, is in harmony, self-perpetuating and self-correcting just as the universe is". Moreover, Yajurveda also says "Yathapindetathabrahmande, yathabrahmandetathapinde" (Universe and human body is homologous). It means, in whole universe the inherent laws are same which lead to harmonious relation and co-existence from microcosm to macrocosm. Moreover, human body is also described as mini universe in Sankhya Darshan[24]. Hazrat Inayat Khan^h explains this harmony as "The existence of land and water, the land for the water, and the water for the land; the attraction between the heavens and the earth, all demonstrate the universal harmony. The attraction of the sun and moon to each other, the cosmic order of the stars and the planets, all connected and related with each other, moving and working under a certain law; the regular rotation of the seasons, the night following the day, and the day in its turn giving place to the night; the dependence of one being on another; the distinctiveness, attraction and assimilation of the five elements, all prove the universal harmony" [25]. The most fundamental concept in Buddhist terminology is dependent origination, "which explains the genuine condition of things that exist in the universe. In its simplest straightforward form, dependent origination claims that anything (including sentient and insentient beings) can only exist in relation to everything else; if the causes of its existence disappear, then it ceases to exist. Nothing can exist on its own and everything is dependent on other things. All elements, all entities, all phenomena are thus related directly and indirectly to one another in the universe. Any change in this huge interconnected compound of existence would definitely, eventually exert influence on everything else" [26]. There are many other philosophers in Indian tradition who talk about inherent harmony and interconnectedness in Nature.

In this context, William G. Braudⁱ made his comment as:

"When we look into the night sky, we see what appear to be randomly placed, unconnected points of light. If we change our perspective and view these stars from a greater distance, they reveal themselves as closely interrelated parts of a single, highly organized and highly patterned galaxy.

When we look into a forest, we see what appear to be randomly placed, individual, unconnected trees. If we change our perspective and look beneath the earth's

^g Inayat Khan Rehmat Khan Pathan (Urdu: عنایت خان; July 5, 1882 – February 5, 1927) was the founder of The Sufi Order in the West in 1914 (London) and teacher of 'Universal Sufism'. His message of divine unity (Tawhid) focused on the themes of love, harmony and beauty. Available at "https://en.wikipedia.org/wiki/Inayat_Khan". Seen On 27/11/2016.

^h William G. Braud, Ph.D. is Professor and Research Director at the Institute of Transpersonal Psychology in Palo Alto, California.

ⁱ Downloaded from <http://inclusivepsychology.webstarts.com/uploads/HumanInterconnectedness.pdf> seen on 27/11/2016.

surface, we see that the trees are not isolated at all but are interconnected by an elaborate network roots that reach out from each tree to touch those of others”.

He explained the deeper meaning of connection, not only between people and people but also “connection between different part of the mind, between mind and body, between people, between people and animals & between people and all of Nature.”

A.Nagraj, who is a philosopher and strong proponent of ‘Madhyastha-Darshan’, has realized the whole ‘existence is in the form of coexistence’[27]. He advocates existence in the form of coexistence of unit (material and conscious) and space (which is all-pervading). Moreover, coexistence (units submerged in space) alone is the root-cause of cosmic-order (existential harmony). According to him each and every unit of this Existence is self-organized and fulfills its mutual and harmonious relationships with a larger order. There are no inherent conflicts in units. Everything is related to everything. Nothing exist in isolation in this existence. There is no unit which is devoid of coexistence in space. Being submerged in space every unit is (i) Energized (ii) self-organized and recognizes its relationship and fulfill it with other units in the space. Thus every unit is working for the coexistence of its larger order, and the whole existence is working to ensure coexistence. This philosophy not only talks about the interconnectedness in Nature but also talk about the interconnectedness between the conscious unit and material unit. According to A.Nagraj, there is also coexistence between the conscious unit and material unit because the whole ‘existence is coexistence’[28]. Thus, every unit, no matter whether it is conscious or material, is bound to be in coexistence. The Human Being has to appreciate his role in this Existence and then act accordingly to this. This is what leads to sustainable happiness and prosperity. This understanding enables us to recognize our mutual relationship with another human being as well as with Nature. The human being has to appreciate his role in this existence and then act accordingly.

Thus, all the above discussed teaching indicates towards perfect harmony in the Universe and this understanding is almost common in all faiths. In fact, all the wise people strongly advocate that shifting from unreality to reality is the prime purpose of human life. All these explorations points towards the inherent interconnectedness of oneness of the whole Existence.

Direct Observations

In the above section, the interconnectedness is explored in various ways. If it is understood then our perceptions

might be changed towards reality, which in turn, may lead to harmonious relations with the other human being and rest of Nature. As shown above, the characteristics like inherent harmony, self-regulation, coexistence, and recyclability exist everywhere and every time which can be seen directly also if we concentrate on events seriously. There are many cyclical processes that can be observed directly which shows self-regulation and recyclability like ‘the weather phenomenon’ where winters, summers and rainy seasons (in India) occur in a cyclic manner. In a forest, growth of trees can be observed, there is a balance between the tree, soil, river, other animals...etc. It never happens that increasing number of trees exploit the soil or animals. Everything is self-regulated[29]. In our surrounding, we can see easily that continuity of species is ensured with the procreation of male and females in particular seasons and there is almost a balance between male and females. Moreover, when we are able to ensure coexistence with another human being (in the form of feelings like, trust, respect, care...love) we feel comfortable otherwise it creates pain.

Conclusion

The present exploration started with the investigation of an inherent interconnectedness, co-existence and self-regulation in the whole Universe of which the human being is an integral constituent. It was the focus of this investigation to search and analyze sources from various disciplines including direct observations, which support this understanding and can be helpful in facilitating the appreciation of this reality by people in general. In this context, Madhyastha Darshan propounded by Sh. A. Nagraj provides a powerful framework to understand the reality in terms of its interconnectedness and co-existence. The methodology provided by this philosophical framework, it is found during study, can be easily integrated with modern education to facilitate the recognition of the inherent interconnectedness and co-existence. If this understanding comes into general perception of everyone through education then it would lead world’s mechanistic view to holistic world view. It means realization of our interconnectedness with the cosmos at large including living and non-living, leads to holistic world view. If this understanding is included in education, it would result happiness & prosperity for all.

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¹A. Nagraj is a philosopher and proponent of Madhyastha-DarshanSah-astitva-vad (existence-rooted human-centric studies). He has presented his thought as an alternative to Materialism and Idealism (Spiritualism, Theism, etc).

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