On the Relational Character of Mind and Nature

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Abstract It is proposed hereby that experiential qualities arise through an interplay between the subject’s constructivist creativity and the informational landscape of the 'hidden' reality. Traditionally divided, idealistic and realistic philosophical attitudes therefore become merged into a single world-view based on the concept of 'co-creation' of experiential qualities. The idea that only differences and changes present perceivable informations is supported by a considerable amount of experimental evidence, whereas the reflections of the proposed relational character of cognition arising out of the structural interface that connects/separates the subject and its environment are discussed as appearing at various experiential levels of complexity. The role of human values in terms of anticipations and aspirations in the experiential co-creation is discussed, as well as the contextual nature of definition of natural/experiential qualities. The main flaws of both objectivistic and idealistic (including radically constructivist) standpoints are mentioned in the quest for their harmonious balance. Balances and harmonies between the various proposed directions of progress are, furthermore, suggested as the keys to sustainable and evolutionary management of natural systems. The idea that balances as essential goals of sustainable management need to be of dynamic character, so that the balances between balances and imbalances present the ultimate balances in the relationship of a being with its environment, is also discoursed.

Introduction

'The true love of all dancers is dancing'
Gary Zukav, The Dancing Wu Li Masters

The greatest achievements of human creativity, which have carried profound and enlightening philosophical and ethical messages 'on their wings', were inspired by perceptions of disharmonies in understanding and applying specific concepts for organization and co-ordination of human experiences, such as science, language, religion or arts. These perceptions usually stemmed from the epistemological pedestals of genial minds, patiently sculptured with gracious ideals, brilliant values and angelically bright visions of evolutionary harmony. The writing of this
paper has been, accordingly, in part inspired by the contemporary tendencies to neglect relationships and balances as the basic references in the explanation of natural/experiential phenomena, and instead to rely on fixed, unilateral and 'phlogistonc' principles, typically proposed as valid irrespective of the interactional contexts in question. Instead of emphasizing an all-encompassing importance of balances, many of the proposed decisions, models and guiding principles nowadays belong to single-sided solutions that although occasionally may bring the balance back into disharmonized systems, in the long run would swing the modeled interaction into the opposite unbalanced state, and as such could not present the long-term solutions for the reigning problems of the contemporary mindsets and societies. Instead of the old-fashioned single-variable models and maximization ideals, dynamic balances and optimizations, altogether with the proposed symbolism of the Way will in the course of this paper be presented as more promising metaphors for describing and interfering with natural phenomena at various complexity scales.

In accordance with the proposed relational character of all experiential and natural phenomena, represented by the metaphor of the Way, neither the thoughts expressed herein pretend to deliver final solutions to the enigmas that concern human relationships with Nature. The purpose of their invoking is only to widen the domain of our inquiry and deepen the intricacy of the new flows of inspiring questioning. As all linguistic expressions could be in accordance with their metaphorical nature regarded as pointers to specific human experiences, the purpose of the ideas proposed herein is, in part, to point to the very pointing. For, the flow of this paper does not tend to indicate only the importance of the aims of our journeys and explorations, but to equally point to journeys and ways as the aims in themselves. Simply saying, if our desire is to learn dancing, the aims inherent in the very act of dancing need to be acknowledged. However, in order to avoid the solipsistic and existentialist cognitive 'whirlpools' dormant in such an attitude of sole 'pointing to very pointing', a complementary aspect of experiential phenomena, related to realistic sharing of common experiences and 'dancing with others', as well as cultivating bright visions of 'final causes' and
simultaneous pointing to various 'sunrising' horizons that the beings of the world yearn to meet on their evolutionary paths, will be invoked in the context of our search for idealistic/realistic balances at the foundations of human reasoning and being.

**Part I. The Basic Teaching**

'A way that can be denoted is not Tao, the all-pervading way. A name that can be proposed is not the real, eternal name'
Lao-tzu, *Tao-te-ching* 1

*What are qualities?*

'When one goes forth a-voyaging, he has a tale to tell'
Arthur Schopenhauer, *The Wisdom of Life*

The first steps towards amazing scientific discoveries and enlightening ideas are marked with the moments of wondering over miraculously ordered networks of relationships that pervade seemingly random and unpredictable patterns of our experiential worlds, and *vice versa*. 'What are qualities?' is the question that may naturally outline in us the wondering cognitive basis for fruitful stepping on the genuine way of exploring the questions of origin and nature of our experiential realities. However, 'quality' presents a term that may evoke various different connotations. Whereas in the domain of social sciences and common conversations it may denote durability, consumer satisfaction or usage feasibility, in the domain of natural sciences and philosophies it denotes elementary features ascribed to natural entities. Every cognitive moment can be essentially described as a segment of a continuous experience of qualities, subjectively assimilated within meaningful perceptive and interpretational wholes, such as objects or beings.

If one consults the traditional philosophy of science in attempts to unravel the mystery of origin and nature of experiential qualities, he would most probably
be redirected to the empiristic categorization of qualities, proposed in the 17th century by John Locke. According to this categorization, all experiential qualities might be divided to primary and secondary ones. Whereas primary qualities are indicated as independent on the observational perspective and consequently subject to measurements and mathematical representations, secondary qualities are proposed as subjective and incommensurable among different observational perspectives. For example, aesthetic forms discovered in the shape, color, smell, texture and the humming sound of a seashell would present 'its' secondary qualities, whereas its inner structural features (i.e. atomic composition and ordering) would correspond to 'its' primary qualities. Both standard empiricism and the philosophical background of the modern science are, in most circumstances, based on a common opinion that cognitive beings are actively included only in the definition of secondary experiential qualities, whereas the primary ones are considered as existing independently of human observers. Such an assumption is directly related to the concept of objectivity, according to which the natural world leaves impressions on human cognitive substrates independently of their will, interpretational and perceptive assumptions, and phenomenological intentions. Curiously enough, this proposition is compatible with the Platonic conception of the existence of ideas not derived from experience, which may be particularly entertaining in view of the origins of the former idea at the core of the philosophical school of empiricism\(^1\).

Secondary qualities are, however, considered either as epiphenomenal or emergent. Whereas primary qualities would correspond to the ones entirely caused by the complex interplay of primary qualities at lower organizational levels of the concerned systems, secondary qualities would be only conditioned by the latter interplay. Also, whereas epiphenomenal qualities are postulated as unable to cause modifications at the organizational level governed by primary qualities, emergent qualities are hypothesized as able to do so, and as such present an essential qualitative aspect of holistic approaches to the explanation of natural phenomena. Due to a distinct subjective character of their definition, secondary
qualities are, in general, insusceptible to descriptions that involve fixed, objective and observer-independent criteria.

However, George Berkeley, another empiristic philosopher, extended Locke's ideas and arrived to the conclusion that all natural relationships are *de facto* experientially observed relations, and that the complete mathematical apparatus applied for representing and depicting natural qualities, including the primary ones as seemingly objective, can be derived from typical human patterns of abstract reflections. Simply saying, in place of every 'world', there may be only 'a world of one's experience'. The stream of experiential events does not uniquely predetermine, but simply 'invite' subjects to compose the raw perceptive impulses into recognizable perceptual wholes and their abstract representations. Despite the communicational norms of neutrality and objectivity, scientific representations may be, therefore, regarded as inherently dependent on the experiential context of their origins and the corresponding semi-subjective re-interpretational character. Neither the very ideas of primary qualities arise through their hypothetic observer-independent impression upon the abstract substrates of human cognitive apparati, but become subjectively constructed through semi-autonomous comparisons of multiple (or at least two) experiential events. The ideas of causality, Cartesian coordinates and other mathematical and logical forms of representing the physical phenomena present human metaphoric inventions applied in the mutual co-ordination of experiences, with intentions of reflecting not observer-independent, natural order, but the evolution of the world of our experiences at various scales. In that sense, Henri Poincaré observed that 'the geometrical axioms are therefore neither synthetic *a priori* intuitions nor experimental facts. They are conventions. Our choice among all possible conventions is guided by experimental facts; but it remains free, and is only limited by the necessity of avoiding every contradiction, and thus it is that postulates may remain rigorously true even when the experimental laws which have determined their adoption are only approximate. In other words, the axioms of geometry are only definitions in disguise'. Albert Einstein similarly held the opinion that 'physical concepts are free creations of the human mind, and are
not, however it may seem, uniquely determined by the external world... The object of all science, whether natural science or psychology, is to coordinate our experiences and to bring them into a logical system.

The biological nature of cognitive and scientific phenomena indicates that the biophysical structure of the observer, altogether with its complete history of internal processes and of the structural coupling with the corresponding environment, determines the boundaries and qualities of the observed systems. The concepts of primary and secondary qualities present, therefore, merely semi-autonomously constructed metaphors in the domain of cognitive reflections. These inner processes of construction of perceptual wholes and ideas are based not on a passive detection of environmental incentives that uniquely determine the further processes of abstract experiential organization, but on a subjective absorption of perceptual impulses that appear in form of differences at the being/environment cognitive boundary and consequently impel the subjects to semi-autonomously (i.e. coupled with the environmental indications) construct meaningful wholes in concert with the interpretational capacities of the actual biological structures. The major difference between primary and secondary qualities, however, lies in a conceptually more stable and substantial, mathematically expressible (whereby mathematical operations were particularly designed so as to be independent on the perspective of their usage) and, thereupon, facilely transmittable character of primary qualities comparing to enormous conceptual complexity of the natural events abundant with emergent and epiphenomenal secondary qualities, impossible to predict, stabilize and maintain meaningful under observer-independent representational rules.

*Every quality is a way*

'Quality knows no boundaries'
Slogan of the modern era
Every quality from both idealistic and realistic standpoints presents a harmony of relations. To illustrate this statement, an inquiry over a pebble will provide a neat contemplation for the beginning of our journey. First of all, observation and definition of any natural qualities require an interaction between a measuring instrument (including the observer's mind) and the observed system. If one observes that the pebble is firm, it does not mean that it is intrinsically firm, but only that it is stable upon applying a mechanical pressure onto its surface. The assignment of units to each physical quality proposed reflects such a relative nature of observation, definition and control of the physical qualities. In physics, hardness is defined in terms of pressure units, and as such is implicitly related to the humanly derived concepts of space, time and movement. However, it possesses a scientific and practical meaning only in relation to the hardness of other materials. In mineralogy, hardness is, therefore, measured on the Mohs scale where diamond is the hardest and talc is the softest mineral. Any attribute ascribed to experiential wholes similarly presents the result of comparisons with some preconceived referential norms. In addition, only a comparison of one measured quality (e.g. structural integrity) before and after the interaction with the measuring device can yield another quality of the system (e.g. firmness). Comparison between at least a pair of perspectives may be consequently regarded as the starting point for each scientific and philosophical thread of reasoning.

Even from an objectivistic standpoint, hardness needs to be represented in terms of atomic interactions that constitute the respective crystal structure and their subsequent interaction with a corresponding measuring instrument, wherein each quality may be, on the other hand, considered as arising through interactions between entities that may also be perceived as more subtle forms of relations, and so forth. Each system quality is, therefore, from a realistic point of view existent as a complex set of relations that intrinsically constitute the system and yet figure in the interaction between the system and its environment. From an idealistic point of view, each system quality would, however, correspond to a harmony of relations that extend between the system's perceptual representation and the subject's interpretational context. In the domain of scientific and
linguistic descriptions, in general, system qualities are existent as the effects of comparisons of specific interactive paths spread between the observer and its environment. However, the thesis proposed in this work presents a postulation of an inseparable connectedness of realistic and idealistic aspects of experience. The products of human perception, thereupon, present tiny areas of intersection between the sets of ontological and epistemological relations that the observed systems and the observer, respectively, 'spread around'. Whereby the former, ontological set corresponds to an infinite spectrum of relations through which the observed system extends its 'essence' towards the rest of the Universe, the latter, epistemological one corresponds to the observer's 'rays of attention' in terms of interpretational foundations and epistemological tools through which he approaches the observation of the given system.

Whereas the ancient Greeks believed that eye throws light to the world and as such promotes the ability to see, the classical theories of vision have been based on the idea that external photons activate light-sensitive sensory cells and initiate the propagation of directly corresponding signals from the optical nerve to the brain where an image of the viewed area is formed. These two concepts can be, however, merged into a single mechanism that might more faithfully explain the process of visual perception. The classical theories of passive sight, according to which eye may be represented as perfectly analogous to photo-camera, are today being increasingly replaced by the theories of proactive sight, which acknowledge a key role of the sensual dynamics in explaining the world as we see it. Such a conceptual conjunction corresponds to the proposed arising of cognitive informations through the intersection of the sets of relationships between the 'hidden ontological reality' that constitutes the system and its relationship with the environment, and the 'hidden epistemological foundations' that comprise the core of attention that the observer pays to the observed system.

Many experiments have indicated that eye and all other sensory organs do not play a passive role of directly representing the patterns of light or of any other impulses that come from the being's surrounding. Instead, they are actively
included not only in the selection of the absorbed impulses, but in their reshaping and adaptation to the cognitive needs of the subject as well\(^5\). First of all, in accordance with Johannes Müller's discovery that all neural signals that arrive at the brain are qualitatively equal\(^4\), sensory cells during perception code not 'what' (i.e. the physical nature of environmental agents that cause their reaction), but only 'how much'\(^5\). Environmental stimuli, in addition, do not cause perturbations of operationally closed neural networks of cognitive systems until the sensitivity threshold of the given sensory unit gets exceeded. However, a zero response of visual receptors will exist under both weak and intensive illuminations (relative to the susceptibility of the receptor cells) for as long as a perceptual comparison does not become introduced in the visual field. Only the receptors that are in contact with the boundary – such as a variation in illumination or in the wavelength of light – will be able to produce a neural signal and initiate the formation of a visual representation of the given stimulation\(^5\).

Saccadic or micronystagmic eye movements that during a visual observation continually shift the position of light-sensitive retina cells relative to the optical image present a consequence of such an ability of sensory organs to detect only differences as informations\(^6\). Only the dynamic patterns of the environment can, therefore, cause sensory perturbations and initiate perceptual activities within the organism. Visual and any other sensory representations that comprise the content of one's present experience, therefore, present not the results of passive impression of environmental patterns upon the empiristic *tabula rasa* of one's mind, but the products of perceptual processes through which a being internally constructs viable representations of the relations between itself and the corresponding environment.

The processes of interpretation and compression of the 'perceived' data begin already at the processing level of the optical nerve, so that the informations that arrive at the brain are redundant in certain extent and, therefore, partly 'interpreted' as such\(^7\). The imperceptible ‘blind spot’ appearing at the position where the optical nerve protrudes retina and analogously indicates that in other experiential aspects we may similarly not see that we do not see. It can be
referred to as one of the crucial examples in favor of the inclusion of the subjectively constructive experiential features within all comprehensive models of perception and cognition. Consciously guided shifts of attention between the perceptible elements within one’s visual field present another subjective factor in the construction of individual perceptual experiences.

Experienced telescopists and microscopists are aware that the results of their measurements present complex, higher-order intersections between the 'real' (although invisible as such) observed processes and the aperture settings, so that the features of the measuring instrument must be included in the description of each experimental result. Likewise, the products of our perception present complex outcomes of the interplay between the properties of us as biological, cognitive and social tradition-influenced observers and of the 'real' observed systems. Consequently, everything characterized as a quality in the world of one's experience needs to be implicitly regarded as a way wherein the subject's cognitive foundations (defined by his intrinsic physical structure) present one 'co-creational' side, and features of the 'hidden reality' present the other. Any quality from the domain of one's perception does not correspond to a priori existing relationships and entities, a.k.a. things-in-themselves thoroughly independent on the observer's interpretational attitudes. Instead, these qualities are the results of an active interaction between the observed system and the subject. Such an interaction wherein experiential qualities of the world that the subject 'brings forth' are formed through an interplay between mind and Nature is herein named 'co-creation of qualities'.

Each object may be, therefore, considered as a dialogue between mind and Nature. The corresponding comprehension of the physical reality opens a novel space for various religious attitudes that may reflect the original meaning of Latin religare: 'to connect'. Every quality can thus be experienced as a sacred link between our beings and the hidden foundations of reality, metaphorically represented by the concept of 'God' in the religious traditions worldwide. On the other hand, objects could be regarded not as signs that point to themselves, but as Biblical 'signs of the times' that at the same time point to the language of God.
as the 'hidden reality' and to the core of the observer's being. Martin Buber noticed that 'all real living is meeting', and with such an imperative on our minds, every instance of living and experiencing qualities may become a genuine encounter between the deepest foundations of our beings and God. 'The universal divine man, the spiritual communion, has as its father its own proper action and knowledge, while its mother is eternal Love, which it merely feels, but does not behold in its consciousness as an actual immediate object', is a part of Friedrich Hegel's discourse on phenomenology of the mind, which may be appreciated anew in frame of the thesis of the co-creational nature of experiences.

The role of values in the co-creation of experiences

'Be it a leaf, a flower, a fruit or even a little water,
When it is offered to me with love and devotion
That, I with love, will accept,
For it is offered to me with a pure mind'.
Bhagavad Gita 9:26

How deep this interaction between the intersected epistemological and ontological spheres in the co-creational arising of the flow of one's experience goes may be a question of tremendous importance. Does it end with sensory-motoric reflexes, phenomenological intentions, the deepest aspirations, anticipations and values, or it proceeds all the way to one's 'spiritual' essence on the subjective side? And does it on the realistic side end with the perceptive patterns of one's environment, or it proceeds all the way to divine foundations of Nature - and as such may be represented by the metaphor of 'God' - which respond to the subject's intentions and actions on the way of his ethico-spiritual and Nature's informational evolution? In any case, perceptually constructive, reflective and spiritual 'touch' between the subject and its environment, through which all qualities of one's world of experience emanate, are all hereby postulated under the umbrella of the concept of 'co-creation of qualities'.

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Nevertheless, one of the most significant ethical tasks in which both philosophies of sciences and religions can be engaged and produce a substantial contribution belongs to a quiet raising of human consciousness up to the level where the deepest human values would be accepted as the bases of reasoning and the construction of conceptual world-views. The fundamental 'religious' hypothesis that has pervaded all the traditions of wise reasoning throughout the history of human civilization is the idea that the way in which people 'seed' by their creative thoughts, expectations and aspirations is the way in which they will 'reap' in the sense of facing environmental reflections of their intentional attitudes. For 'all the things that we deal with, preach to us'\(^9\), as Emerson noticed, setting our attention to the idea that every detail of one's experience presents a way which, if followed correctly, may lead the subject towards self-realization and the mutual evolution of spirit and Nature. However, these 'mystical' links that connect the subjective foundations of one's experience and the guiding spiritual force of Nature - immanent in every detail of one's experiential world - will remain sources of faith-encompassing contemplations that may, indeed, foster an unending development of the divine qualities within ourselves. In accordance with the idea that 'every quality is a way', instead of proposing final and eternal solutions to dilemmas that concern the conductance of individual actions and management of natural and social organizations, the attitude marked with an endless exploration of novel ethical and conductance norms may be regarded as the drive for achieving cognitive, social and ecosystemic prosperities.

The idea that the complexity of natural phenomena arises out of the co-creational relationship between mind and Nature can be supported by the fact that with physical approaching of the research objects to the observer's mind – from astronomy, geology and geography to anatomy, physiology and psychology\(^10\) – the difficulties in providing simple and consistent depictions of the 'real' systems in question proportionally increase. It was proposed that accepting the mechanistic explanation of the origins and evolution of life as the ultimate one would only mean that 'the enigmas of the Universe' would cede their place to 'the enigmas of human cognition'\(^11\), whereas on the other hand,
accepting the solipsistic idea that the Universe is nothing but a giant tautology would provide an opposite shift in the actual enigmas. Consequently, in quests for the paths of destiny one would be pointed to the ancient prophecy of the oracle at Delphi: 'Know Thyself', whereas in quests for the inner sources of harmony and happiness one would be pointed to hear and explore the 'still small voice' of Nature that underlies all the co-created experiential details. All 'natural' laws have presented neither passive objectivistic 'discoveries' nor solipsistic 'inventions', but higher-order products of the co-creational intersection of idealistic and realistic experiential aspects. The 'inventional' aspect of the formation of scientific theories implies, however, that they partly arise in human consciousness and correspondingly need to be self-referential (i.e. explicit functions of itself\textsuperscript{12}) in certain extent, and as such either inconsistent or incomplete, as Gödel's theorem might have already suggested\textsuperscript{13,14}.

Albert Einstein correspondingly observed that ‘the problems cannot be solved at the same level of awareness that created them’. However, such problematics present an inherent drive for the reflective-behavioral coupled learning. Namely, living implies a continuous cognitive production of differences, and \textit{vice versa}. As we will see later, the processes of distinction whereby the subject continually 'draws' boundaries and thereby indicates various ‘insides’ and ‘outsides’ may be regarded as the fundamental operation of cognition. Such a first-order cognitive performance wherein differences and indications are generated simultaneously\textsuperscript{15}, however, proceeds unconsciously and spontaneously, so that it presents an 'invisible' condition - 'blind spot'. Whereas this primary cognitive differing can be, therefore, only performed, but neither observed nor noticed at the same level of its performance, abstract reflections that correspond to the second-order differing (i.e. observing of the first-order differing) can offer a partial insight into its proceeding. However, in that case the second-order differing will proceed as a 'blind spot'. Ascents to higher orders of observational settings (i.e. observing of observing) and flexible modifications of the actual perspectives, thus, provide the ways to surpass the imperceptible areas of experiential fields and enrich the domain of one's knowledge.
In addition to the role that the biological nature of the observer plays in defining experiential qualities, implicit values can also be regarded as 'invisible' criteria of selection and 'drawing' of boundaries at both directly perceptive and abstract domains of interpretation of our experiential worlds. Scientific and philosophical reasoning rests on implicit assumptions that cannot be verified through experiments, and thus remain the subjects of faith in their viability. Similarly, the foundations of faith are implicit in the assimilation of primary experiential features into perpetual experiential wholes. Therefore, not only do implicit values govern the interpretation of experiential phenomena through imposing the criteria of selection in the accumulation of data and the comparison of logical propositions and inferences, but may be regarded as partly guiding the formation of the primary perceptions\textsuperscript{16}.

It is worth recalling that the notion of 'understanding' in the context of scientific reasoning becomes identified with 'explaining', whereas the scientific explanations are based on the principle of logically consistent incorporation of descriptions onto a specific set of postulated logical rules, known as tautology. Hence, just like a strictly consistent application of logical rules requires placing 'If' in front of any tautological proposition wherefrom a specific conclusion is derived, a precise and the only accurate application of scientific relationships would require annotating their resting on the fundamentals of implicit and metaphysical assumptions. However, besides the sets of proposed logical premises, tautologies also inevitably comprise certain 'common sense' representations and relationships. Erich Fromm accordingly observed that 'rationalization is not a tool for penetrating the reality, but post factum attempt to match one's desires with the existing reality'\textsuperscript{17}. This niche might also provide an explanation for the tremendous sensitivity of scientific 'towers of knowledge' to sudden transitions from ideas based on implicit questioning 'how' (that lead to reinforcing the links between the basic assumptions and observable inferences) to the ones that comprise implicit questioning 'why' (that lead to revisions and reevaluations of the fundamental propositions that govern scientific practice based on the given formal system of reasoning). Experience, thereupon, gives
rise to faith, whereas faith, so to say, gives to experience. 'All observations are theoretically permeated: there is no pure, disinterested, theory-free observing... our sensory organs embody that which adds up to prejudices', Karl Popper correspondingly thought, whereas Jean Piaget held that 'a profound synthesis between beliefs and the conditions of knowledge is what we have named wisdom, and it seems that it is the subject of philosophy as well'. Norbert Wiener similarly claimed that 'without belief that nature is subject to law there could be no science... Science is the way of life which can flourish only if people have been given freedom to have faith', pointing at the fact that each fruitful scientific research blossoms upon the stem of an ecstatic quest for knowledge, permeated with faith and beliefs, without which ordinary scientific professions would be transformed into 'a cold, policing inspection carried out on top of the logical labyrinths of human imagination, and resembling the role of the devil from John Milton's 'Paradise Lost'. And 'the current detective-like attitude of the heads of scientific administration is one of the main reasons for the futility of a large part of today's scientific work', as Norbert Wiener further observed.

These implicit bases of reasoning and the co-creation of experiences may, however, unrevised maintain the form of 'blind spots', and as such sustain the subject's cognitive sensitivity towards environmental feedback responses to his subtle actions at a reduced level. Beautiful values typically correspond to a high cognitive flexibility/sensitivity and the corresponding tendency to increase the diversity of the optional states for the being/environment interaction. This explains why the freedom of choice brought forth by a cognitive openness towards environmental stimuli has been proposed as the ultimate criterion of the value effectiveness. Comparing to computational algorithms and other strictly formal systems of reasoning, natural patterns of thinking involve metaphoric and intuitive changes in perspectives, which do not correspond to inert tracing of the logical 'threads' of one's thinking only, but to an incorporation of imaginative and logically unconstrained leaps between various established metaphorical levels of representation of the given systems as well. In such a way, they provide a natural way for avoiding the long-term 'blindness' in relation to the implicit assumptions
applied in explaining the experiential phenomena and conducting personal behavior. In the following sense, Rudyard Kipling used to say, 'Who knows England who only England knows'. Like doves\textsuperscript{22}, the modern symbols of peace, who in their wobbly walk need to linger every now and then so as to compensate for an innate inability to form stable visual images during moving, human beings also need to pause every now and then on their straight-heading journeys, step back and observe the features of their reflections and actions from novel perspectives. Changes that in formal languages correspond to new descriptions of the limiting conditions\textsuperscript{23}, thus present the way for surpassing the inherent limitations within any experiential point of view, whereas the natural evolution may be identified with the development of ever more flexible capabilities to create diverse experiential perspectives through their synthetic comparisons (as has been illustrated with the example of a pebble).

\textit{Contextual effects in the co-creation of qualities}

'Verily, verily, I say unto you, except a corn of wheat fall into the ground and die, it abideth alone: but if it die, it bringeth forth much fruit'.
John 12:24

Cognitive beings react on environmental impulses in accordance with their biophysical structure, which is unique at any moment of their existence. As a result, unique perception results, data-compressing categorizations and abstract interpretations will always be produced out of even hypothetically identical impulses. Whereas from the idealistic co-creational perspective it may be noticed that what humans may observe as qualities and objects (the latter being 'holders' of certain qualitative harmonies), a neutrino or a cricket would either not notice at all or perceptually assimilate into thoroughly different patterns that may help facilitate the co-ordination of experiences, from the realistic co-creational perspective numerous witful illustrations of the theory of relativity may point out the relative character of experience in relation to physical conditions of the
existential reality. Also, whereas investigations of 'identical' natural systems by means of different measurement techniques or methodological approaches can result in thoroughly different descriptions of the 'same' systems, inter- and trans-disciplinary approaches to scientific research are today widely acknowledged as the most prosperous (but at the same time professionally riskiest\textsuperscript{24}) research strategies for sustainable and well-balanced conductance of the scientific practice.

Contextual character of the co-created qualities, including both the context of 'hidden' realistic relations that the observed systems are involved in and the subjective character of the contextual framing of the process of observing, thus possesses a decisive role in the process of the co-creational observation. An 'overwhelming' depiction of contexts and the 'root-like' picture of epistemological and ontological foundations of the experiential co-creation may in this sense become united into a single circular scheme where the foundations define the contexts and \textit{vice versa}.

Relying on single-variable description models is equivalent to the disregard of the contextual and relational character of experiential/natural qualities. First of all, invoking qualities and quantities that are meant to stand for a single side in interaction presents an erroneous practice because such qualities were initially derived from certain relationships. Secondly, different contextual 'enwrapping' of invoked relationships in both interpretational and realistic domains can result in a multitude of effective qualitative characters of those relationships, so that thoroughly opposite results comparing to one's intentions behind their invoking might be obtained.

So far we have seen that ultimate intrinsic qualities that might be able to correspond to Kant's things-in-themselves are non-existent. It is impossible to observe only one side of any interaction, because it is imperceptible, like the 'one-hand-clapping' from the famous Zen koan. On one hand, in order to observe it, we must interact with it and - as the 'weak' interpretation of Heisenberg's uncertainty principle suggests - consequently modify it. Such a modification of inherent properties that prevents formation of purely objectivistic measurement has been evidenced in the domains of quantum and multiatomic systems,
cellular, psychological, physiological and anthropological systems. On the other hand, only relations in terms of differences produce raw perceptible data. The formalism of quantum mechanics has, for example, shown that instead of inert, independent and unchanging material entities, particles that constitute the Universe may be more precisely represented as processes and relations through which they interact with their infinitely spreading environments. The common characteristic of systems and quantum theories is describing relations without relata, correlations without correlata, the 'nodes' of postulated systems without any intrinsic qualities. This presents a natural reflection of cognition and human knowledge as derived upon differences, whereas each physical and seemingly intrinsic quality owes its existence and purposefulness to its interaction with the corresponding environmental context. The networks of life and cognition are, therefore, not webs of independent and inherently static entities, but functional webs composed of endless relations and pathways and thus being patterns that connect patterns that connect patterns...

Although most of the actual scientific assertions (and particularly the popular ones) implicitly comprise a presumed existence of an observer-independent objective world, all seemingly intrinsic physical qualities, such as energy or momentum of a particle, could be defined only in terms of their relations with the postulated environments. For example, a particle may be observed to be highly energetic only by referring to its environment through which the particle passes. Consequently, the energy content of the particle becomes inseparably related to its environment. The same principle of the contextual definition of qualities may be applied in any other domain of the cocreation of experiential phenomena, including biological, ecological, social and cosmological complexity levels. One of the significant ethical consequences of such a niche wherefrom all qualities of a system may be picturesquely represented in terms of their 'spreading hands' towards the corresponding environments, is that any form of possession can be realized as illusory, and 'to give is more than to have', as the ancient religious ethical norm might suggest us. Martin Buber correspondingly deemed that 'the core of man is relationship', whereas Ferdinand
Ebner observed that 'there is no I, but I am'. Either mind or human emotions could, therefore, be seen not as localized patterns of relationships, but as limitlessly spreading relations, picturesquely represented by 'sunny' glowing sources of the rays of light.

The co-creational nature of the construction of primary experiential qualities and of their subsequent assimilation into perceptual and abstract wholes implies that the subjectivization and the rise in self-awareness of one's mind in early stages of life proceeds in parallel with the development of awareness of objects as experiential features that seemingly belong to an 'external' world. Nonetheless, there can be no subject/observer without object/observed, and vice versa. As Martin Buber noted, ‘It is simply not the case that child first observes an object and then sets itself in relation to it. The tendency towards forming relations comes first’. The idea that the co-creation of experiential qualities simultaneously and interdependently establishes awareness of the subject and of the objects implies not only that verbs more faithfully represent the experiential phenomena comparing to the standard linguistic reliance on nouns, but that the ethical improvements of the epistemological foundations of our beings lead to observing 'the world around us' in more profound and beautiful light, and vice versa: the more one becomes devoted to discerning beautiful features in the 'outer world', the more it enriches the epistemological foundations of his being as well. Neglecting the precious co-creational links between the 'observer' and the 'observed' may be involved in the illusion of an alienated dwelling in the world that develops independently of the deepest aspirations of our beings. Or as Martin Buber further noticed, 'If culture ceases to be centered in living and perpetually renewing relational appearances, then it hardens into It-world...then smooth causality which did not have the power of disrupting spiritual conceptions of the Universe before, raises until it becomes oppressing, suffocating destiny'.

Yet, in accordance with the 'co-creational' thesis, the origin of experiential qualities is explained through a mutual creative involvement of the subject and its environment. This implies that individual experiential worlds can be considered
neither as solipsistic 'inventions' independent on the environmental content, nor as objectivistic 'discoveries' independent on the subject's cognitive foundations. Instead, all the products of one's perceptual activities can be regarded as co-creational 'touches' between the subject and its environment, which may from the religious perspective yield a metaphor of the co-creational 'walking along the road that leads to evolution of heavenly purity of human spirits and awakening of the dormant kingdom of heaven throughout the natural widths'. The moments of indignation depicted by either childish superstitiously objectivistic anger caused by stumbling over a stone and accusing it for mean intentions, or manipulative solipsistic irritability caused by the deviations of experiential patterns from the way the child commands them to behave, can be transformed into serene, humble and attentive cognitive attributes that naturally arise from the acknowledgement of the co-creative interaction between mind and Nature as the cornerstone of any being and becoming. Objectivistic quests for the ‘treasures of life’ in ‘external’ situations and landscapes, independently of the epistemological settings of one’s being are reminiscent of the quests for a pot of gold at the rainbow’s end. The latter cannot be ‘touched’ because the rainbow’s position shifts together with the imaginary path that connects the subject’s observational perspective and the position of the Sun. ‘Imaginary paths’ that link mind and Nature accordingly present the ‘strings’ that fluctuate and thereby create all the details of one’s experiential world. Through embracing the co-creational nature of experiences, many cognitive, ethical and emotional disharmonies that result from the subject’s ‘receding’ towards only one of the sides in the balance – to the side of ‘Nature’ with the symptomatic observation of predestined, mechanistic and observer-independent world which justifies the neglect of one’s precious improvements of cognitive and ethical foundations, or to the side of ‘mind’ alone which typically results in the sense of mental isolation, manipulative anger and disregard of the importance of comparisons of one’s own rational and emotional perspectives with the ones of the others – could be transformed to an ‘enchanting music’ that corresponds to one’s alternate cognitive approximations towards opposite, but mutually accentuating balancing sides, as we shall see later.
in the text. As in the movie ‘La Strada’, when the circus tightrope walker consolates sad Gelsomina by pointing her to an all-encompassing meaning and the key role of even an inappreciable pebble in the story of the development of the whole Universe, one’s feeling of devastating anger and hopeless desperations that naturally arise from solipsistic and objectivistic cognitive stances may similarly be transformed into a creative wondering in front of the experiential patterns that arise through the co-creational interaction between mind and Nature, so that the subtle lines and ridges ‘drawn’ on a tiny pebble that one carries in the palm of his hand may be seen as inexhaustible sources of genuine ‘communications’ that emanate from an evolutionary ‘walk’ in which ‘divine’ Nature similarly points to an all-encompassing meaning and sources of observation, contemplation, research and refinement of human knowledge (and attainment of ever more beautiful experiences), as ‘sleeping’ in small, unapparent and ‘hidden’ features of experiential realities.

Informations of the world as differences

'Why no! I never thought other than that God is that great absence in our lives, the empty silence within, the place where we go seeking, not in hope to arrive or find. He keeps the interstices in our knowledge, the darkness between stars'

R. S. Thomas, *Via Negativa*

In the previous sections we have shown that biological systems are sensitive only to differences in the spectrum of environmental stimuli that they are in contact with. Gregory Bateson correspondingly defined information as a 'difference that makes a difference'⁶. The realistic side of the co-creation of experiential qualities comprises environmental differences that ‘invite’ cognitive systems to internally construct the corresponding differences within their autopoietic cognitive networks. In that sense, only the impulses of environment that succeed in inducing a change in the structure of the cognitive being may be considered as informations. 'In-formare' in Latin originally meant something created from within, and the contemporary connotation of 'informations' as objectivistically
transmittable differences that may consequently imply biological instillation of knowledge and unidirectional stimuli – response manipulation of beings, could accordingly cede its place to the acceptance of subjectively constructive character of all ‘informations’. Information may be regarded not as an objective quantity, but as a qualitative process of informing, although pervaded with potential ambiguities and incompatibilities of meaning that arise out of its inherent subjective and contextually dependent character. However, incompatible descriptions of the ‘same’ systems from diverse perspectives present the starting points for the development of any science and knowledge whatsoever; for, we have seen that only synthetic comparisons of different, seemingly incompatible and exclusionary perspectives may give rise to novel, higher-order experiential aspects that unite the lower-level standpoints around the concepts wherefrom once confronted niches would ‘watch’ together the same horizons of knowledge.

Because only contrasts, fluxes, changes and differences could be sensed by biological systems, on the realistic co-creational side everything potentially observable presents qualitative emanations of relationships and processes, whereas on the other, subjective co-creational side one needs to constantly change perspectives in order to be able to notice subtle changes and frequently almost constant flows of environmental stimuli as sources of significant informations. ‘The unchanging is imperceptible unless we are willing to move relative to it’, observed Gregory Bateson, whereas the quasi-scientific observation of a frog cooked alive after being heated with a sufficiently low temperature gradient, and of numerous accommodational cognitive phenomena, including the effect of spontaneous instigation of one’s attentiveness by producing novel cognitive contexts and environments, may from a wider perspectives support the thesis of the ‘differential’ character of experiential content.

Each information presents a boundary (either a physical or an abstract one) that divides a certain uniformity to corresponding 'insides' and 'outsides'. Consequently, every form of knowledge is of polar structure: every 'no' comprises implicit 'yes' (so that every negation presents an affirmation at the
same time\textsuperscript{32}, every distinction, naming and description implicitly point to the rest of one's experiential context, every critique and declaration of goodness and validity comprise implicit pointing to what is not good and viable. Because of being a link between particular 'insides' and 'outsides', every information as a boundary at the same time presents the line of separating and connecting the respective poles, and could be, therefore, similar as each quality, regarded as a way. For, each way represents a path of simultaneous separateness and connectedness. Structural coupling between individual beings and their environments, and the co-creational dichotomy between mind and Nature reflect the same symbolism of the Way.

Every description and every act of creation, therefore, imply a formation of polarities and a breaking of symmetry from the system states pervaded with uniformities and higher symmetries. The theories nowadays employed in explaining the origins of both the Universe and life invoke gradual differentiations of energies, symmetries and biological self-organizing patterns from the initial states dominated by physical singularities and the absence of primordial autocatalytic reactions as precursors of advanced metabolic cycles, respectively. Traditional narratives that depict the origins of the world employ various metaphors to account for such differentiations of complexity of natural relationships in the course of their evolution\textsuperscript{33}. The Biblical story of Genesis includes the descriptions of dissociation of light from darkness, day from night, heaven from earth, and sea from land, and can be correspondingly regarded as a metaphorical reflection of the evolutionary streaming of life towards increasing informational, negentropical content of both human cognitive spheres and the living environment.

The evolutionary progress is inherently related to the formation of ever subtler differences in the domains of perception, abstract reflections, being/environment interactional interface, and 'realistic' informational content of the environment in which individual beings are immersed. The evolutionary 'invention' of consciousness (i.e. self-awareness) has corresponded to the capability of autonomous 'drawing' of reflective differences and establishing
boundaries within our experiential domains in accordance with the outlines imagined. 'Draw a distinction and a Universe comes into being', was accordingly the celebrated George Spencer-Brown's norm. Emergence of two from one has ever since presented a miraculous natural event, whereas the moments of Big Bang, the first division of a fertilized egg cell, or a hypothetical decision of a being living in an imagined, Schopenhauerean world - in which the environment would perfectly correspond to the being's inner aspirations and desires - to sacrifice its uniqueness and share the world with a co-creational 'partner' (as has been depicted in the form of a profound screenplay parable of Andrei Tarkovsky’s movie 'Stalker') present examples that concord with the famous Chuang-tzu's observation: 'If there would be no others, there would not be me either'

It seems that in order for anything to appear, a boundary that intersects a single entity or perspective forming two contrasting entities needs to be drawn. To render an information perceptible, a boundary between two individually imperceptible areas needs to be established. The evolution of human knowledge similarly implies the process of differing within continual and uniform wholes, and in that it resembles the role of 'Maxwell's demon'\[35\], a being that – similar to the Little Prince who on his small planet needs to continually make differences between roses and baobabs\[36\] – intelligently differs gas particles according to their heat content, and as a result of such selective permeability decreases the entropy of a gas vessel. It may be recalled that even the Latin word for science - *scientia*, comprises Indo-European root *skei*, which denotes the activity of dividing, selecting and distinguishing. Then, it is not only that each representation of our experiences in the domain of reflective knowledge requires comparisons of perceptive and symbolic constancies, but also in order for any abstract inference to be arrived at it becomes necessary to perform a comparison between at least two logical propositions. 'Relationship is always a product of double description'\[36\], is the thought that Gregory Bateson demonstrated by offering an analogy between forming a novel spatial perspective through comparing the images obtained from a pair of eyes and the idea that comparing at least two different
perspectives may provide us with a relationship and as such open the way towards new levels of understanding.

However, every postulated or imagined pathway or relation necessarily comprises two end points. Consequently, in order to define or observe any change, it becomes necessary to establish a relation between at least two constancies. Change in the distance between two objects can be, for example, observed only after assuming the constancies of these two objects in time. If one observes a shift in the position of a star by comparing two photographs of a stellar constellation, such an observation would be based on the assumption of constancy of the appearance of the star and of the constellation in the background. Analogously, each property referred to in scientific or common linguistic descriptions is always drawn relative to some implicitly presumed constancies. Hence, there could be neither absolute qualities nor absolute skepticism and query in the domain of human knowledge and experience. For, ‘who would want to be skeptical about everything, he would not arrive to skepticism at all… Inquiry about everything would not be inquiry at all’

From the fact that living beings are able to perceive only differences, it may also become clear why abstract reflections are predisposed for analytical reasoning. The method of thinking wherein boundaries between both seeming perceptive constancies and their abstract representations become diversified during the development of one’s knowledge presents a continuation of the child’s perceptual distinctions aimed at improving the coordination of its experiences, although at the cost of the subjectivization of its mind and the development of an awareness of its separateness from ‘the world around’. However, thinking based on analytical reasoning alone would be as unsustainable and unimaginable as a bird flight with only one-wing-flapping. Child’s construction of experiences is based on the balance between diversifying distinctions and assimilations of elementary experiences into wholes such as objects or the surrounding beings. In that sense, the synthetic linking of diversely separated and disconnected experiential wholes into new meaningful unities
corresponds to another, genuine religious (from religare) need inherent in human beings, which resembles the search for the childish unity with the whole world as in the initial stages of one’s life. The metaphor of the Way corresponds to such a simultaneous existence of separateness and connectedness (which all ways, roads and paths symbolize), and through their dynamic interplay the evolution of human knowledge and cosmic informational content proceeds. Fostering diversity that preserves unity and unity that preserves diversity, therefore, presents the key ideal to truly wise, simultaneously sustainable and evolutionary management of the interaction between the beings and the environment.

Patterns composed of alternate differing and merging may be discerned as elementary matrices of reasoning and both perceptive and abstract ordering of experiential worlds. As in the case of a grandfather clock where one becomes free to decide whether the clock strikes the first hour multiple times or an hour indicated by the number of consecutive ‘dongs’, the environment provides impulses that cognitive beings autonomously arrange into categories (such as numbers in this example) by applying the operations of identifying and differing. In this case, the counted experiential patterns may not be regarded as existing independently of and prior to the process of counting, because it is the discerned acts of perceptual categorization that are being reflectively counted. The basic concepts of scientific reasoning, including Cartesian coordinates, time and mathematical operations are similarly not present in the ‘world around us’, but are being co-created in the interaction between environmental stimuli and active ‘constructivist’ minds. Mathematical abstractions as prototypes of conceptual patterns ostensibly detached from the real-life experience may be, therefore, notified as co-creatively founded on biological, ontological and ‘realistic’ grounds as much as on the subjective ones. Investigations of physical phenomena that are regularly considered as detached from subjective observational aspects may similarly be acknowledged as co-creatively founded on interpretational, epistemological and ‘subjective’ grounds as much as on realistic ones. Consequently, the scientific disciplines of physical chemistry, philosophy and biology could be arranged within a closed circle wherein each successive field
would provide epistemological foundations for the preceding one. As Erwin Schrödinger put it, ‘the world appears as one, and not as the world that exists and the world that is observed. Subject and object could not be separated… Object and its image in the mirror are one and the same. The world in space and time is only our representation’.

And indeed, the co-creational perceptive coalescence of the observer and the observed prevents any attempts of non-arbitrary and ‘neutral’ distinction between the two.

With an ability to perceive only differences and boundaries between individually imperceptible wholes, cognitive beings may be only able to observe the cracks in an endless continuum of the divine physical reality. "The deepness of the world and its secrets are not found where the sky is filled with clouds and is dark, but where it is bright and clear," as Joseph Knecht observed in Herman Hesse's 'Glassbead Game'. In Taoistic tradition it is regarded that empty, unused space on a painting carries the essence of its value, whereby Claude Debussy observed that 'music is the space between tones'. "While we look not at the things which are seen, but at the things which are not seen: for the things which are seen are temporal; but the things which are not seen are eternal" (Corinthians II 4:18), as St. Paul the Apostle professed, pointing to the essential subject of interest and devotion of all religious and ethico-aesthetical thoughts: invisible and implicit patterns of the world and communication. Continual communicational explication of these implicit sources of meaning may be noticed as the pathway of natural evolution and scientific progress. "Our knowledge of the world seems to me like a top of an iceberg; it is like a tiny piece of ice that protrudes out of the water, whereby our ignorance reaches the greatest ocean depths," Heinz von Foerster correspondingly declared. Besides their metaphorical character, another common feature of science, philosophy and religion lies in their representation of the relationships that connect the invisible foundations of reality with the apparent experiential phenomena. By acknowledging the co-creational nature of experiences and deriving from there on not objective and universal, but metaphoric, multiversal and pragmatically co-orientational nature of sciences, religions and all other communication endeavors, ethical virtues such as love,
care and benevolence may be notified as those implicit bases upon which all the fruitful human interactions in the respective domains rest.

'Two nodes and a change' as the nature of human thinking

'The feeling remains that God is on the journey, too'
St. Teresa of Avila

In the previous section we have seen that proposing a pair of fixed end points and a change presents the basis of human thinking. Such a conceptual organization of reasoning may be, therefore, neatly represented by the metaphor of the Way, as well as by the one of all-encompassing music. Similar to simultaneous separateness and connectedness symbolized by every way, acoustic oscillations arise through the alternate moments of approaching and distancing of two nodes. They should never become too distanced or completely merged if the charm of music is to keep on existing, i.e. if the fruitful ways of interaction are to be preserved. Despite the fact that language commonly stresses only one side of interaction, all reasonable explanations need to rely on relations. The relation between subject and 'explanatory principle' – locomotive and the train's caboose – presents the key to reasonable scientific explanations.

Scientific explanations ultimately rely on relationships, and some of the remarkable blunders in scientific practice have been related to adoption and implementation of certain qualities as fundamental ones. Despite this, the nature of human reasoning is such that an explanatory principle (equal to placing a caboose at the end of the train of logical thoughts or fixing the nodes that enable the strings of constructed relationships to oscillate and produce sounds) needs to be employed within each explanatory procedure. The examples of explanatory principles in science may include 'gravity' in Isaac Newton's classical mechanics, the 'speed of light' in Albert Einstein's theory of relativity (wherein the assumption of identical physical laws permeating each particular observational frame, as a matter of fact, supports the relativistic character of physical
observations, and accordingly provides this theory with an inherent 'absolutistic' character), 'instinctual drives' in psychoanalysis, and 'genetic code' in the contemporary molecular biology. Some of the notable examples from the field of philosophy may include the concepts of 'Will', 'Absolute', 'Absolute Spirit', 'Being', 'I', 'a priori categories of understanding', 'Monads', 'Res cogitans' and 'The Highest Good' in the philosophical systems proposed by Arthur Schopenhauer, Joseph Schelling, Friedrich Hegel, Martin Heidegger, Johann Gottlieb Fichte, Immanuel Kant, Gottfried Leibnitz, René Descartes and Aristotle, respectively.

In theology, the concepts of God, soul and the Holy Spirit present 'explanatory principles' as the end points of one's inquiry within the given 'formal' system of reasoning.

Similar as the Sun cannot be watched directly, but only the effects of its light sourcefulness can be appreciated, explanatory principles as the key points in formal systems of reasoning can only be invoked, but never explained, particularly because they are used to explain everything else. Circular relationships wherein each cause presents an effect and *vice versa*, become frequently employed in order to overcome the logical paradoxes that arise from the application of iterative algorithms. However, due to the constant character of linguistic notions, employed to ensure an efficient communication of meaning, the same fundamental terms in each specific explanatory methodology remain. Although informations could be presumed as existent even after their sources have decomposed, there may be no exactly constant, fixed and ultimate entities in the organization of the world. All cognitive systems are in the dynamic states of continual biological self-production and becoming, whereas - as we shall see later - the fundamental units of evolutionary survival are not genetic units, but epigenetic patterns and relations. As physical entities are in the framework of quantum field theory represented not as objects of permanent qualities, but as patterns of their relations with endless surroundings, cognitive beings may be considered as similar relations through which their cognitive foundations spread towards the world. The significance and beauty of informations that a being co-creates and as such 'gives' to the world comprise the essence of his being, which
may be illustrated by the movie 'It's a Wonderful Life', and which explains why the metaphor of the Sun is frequently elicited as the ultimate ideal on the path of the spiritual evolution of living creatures.

'Invention of one new word will often be enough to emphasize relationship, and the word will be creative', was the opinion of Henri Poincaré. In the domain of scientific reasoning, only qualitative or quantitative relationships can be used for explaining natural events. Single dimensional qualities can be consistently used only in the frameworks of logical matrices, whereby the effective character of the latter is dimensionless. Implicit assumptions of constancies in form of tautological premises of reasoning may be seriously shaken as soon as we start investigating the nature of cognition, experience and language, and realize that the linearized pathway of scientific method presents, in fact, a cyclical, abductive pattern of the research conduct. By reducing the nature of scientific qualities to their elementary experiential character, one would eventually realize that conceptual networks of reasoning may be basically supported by only dimensionless qualities, such as probabilities, informations (as either perceptive boundaries or quantities of selection), differences, forms, contrasts, symmetries, correspondences, congruencies and conformities, which all present abstract and unlocalizable qualities. Similar to the ideas of phlogiston, instinct, nutritional calories, and the 'dormative' principle that was thought to rest in opiates, all the explanations based on single variable models and unilateral principles that are acontextually designed to account for all the respective natural phenomena, regardless of the other side of interaction, are thus doomed to failure. Delusionary apprehension of certain physical qualities as fundamental ones stems upon a disregard of the fact that scientific propositions are not objective statements, but human inventions applied for the mutual coordination of experiences, and as such are based on numerous implicit assumptions. On one side, these implicit assumptions cannot be verified by means of experiments, whereas on the other side their resting upon the foundations of subject's faith and belief in their validness disables them from being used in proving verily any scientific hypothesis at all.
Avoiding the traps of objectivistic and solipsistic stances on the way of reaching fruitful consequences of the concept of co-creation of qualities

'A flag was waving in the wind. One of the monks observed: 'Look, the flag is moving'. The other monk replied: 'It is not the flag that is moving; it is the wind that is moving'. Then the Zen master said: 'It is neither flag nor wind that are moving, but it is a mind on a journey'.

Zen Story

A fundamental consequence of the proposed co-creational nature of the emergence of experiential qualities is that epistemology and ontology, as much as idealism and objective realism, as traditionally divided approaches to describing reality become integrated into an interdependent and inseparable whole. Thereupon, if one seeks to unravel some of the natural mysteries, he needs to know how humans know (i.e. to 'know thyself', when a clear and bright view towards Nature may open) and vice versa: if one seeks to know oneself, he must face through his questioning and inquiry the mysteries of Nature. Versatile philosophical branches of contemporary scientific disciplines and theories, including systems theory, theory of constructivism and autopoiesis, first- and second-order cybernetics, information theory, quantum theory and theories of non-linear, dynamic and complex systems, are closely related to investigating the fundamental epistemological question: 'How do we know?'. Owing to the co-creational coalescence of the observer's and the observed system's influences at the level of final perceptual and interpretational outcomes of the observer's experiences, inquiries over the basic epistemological questions simultaneously present the way of improving one's understanding of the natural realities. 'It is not the thoughts that ought to be known, but the one that thinks', are the concordant words from Kaushitaki Upanishad. These words may point to the fact that mind reflections and scientific expressions both originate from implicit foundations of the subject's reasoning and its inherent biological nature, so that learning about the effects of these (and all other) foundations upon reasoning,
emotional and behavioral patterns may be regarded as the main tasks of the true philosophy that brings the keys to a wisdom of being. It is through deepening the basic epistemological questions that one opens the door to the discovery of metaphorical and socially co-orientational character of science and language, and may thereafter travel along the way of overcoming their objective character (deprived of the need to invoke ethical values in the course of their usage) and spontaneously stimulating the roots of a more harmonious, flexible and fruitful reasoning\textsuperscript{16}.

The ethical flaws of objectivistic cognitive stances are numerous. Neglecting the co-creational character of all critiques, opinions and 'measurements' of others, and correspondingly disregarding the fact that the subject's cognitive foundations in terms of phenomenological intentions, anticipations and communicational aspirations become partly reflected on the observational outcomes, may lead one to develop somewhat intolerant and manipulative attitudes in relationships with others. One may become a 'peep-hole' observer\textsuperscript{23} conquered by the illusion that he is able to change the world without changing himself, and thus judge about the world in a detached, neutral and objective manner. The subject's responsibility for the state of his world may become diminished, as all the experiential details are to become regarded as events taking place in a distant and subject-independent surrounding. However, responsibility and purposefulness that one ascribes to existence seem to inevitably go hand-in-hand, so that the suppression of responsible decisions via submissiveness to the power of authorities diminishes one's creative capabilities and depletes one's inner sources of inspiration.

The truthful character of scientific expressions that are mistakenly identified as real and objective representations of the respective natural phenomena, presents such an authoritative force that requires an unconditional 'surrender' and 'retreat' of incompatible perspectives. For, together with acknowledging the truthful character of science and language, the space for 'battles' among representational perspectives open, since only one is the 'ground of truth'. When it comes to scientific communication of meaning, it seems that in
the end 'the question is which is to be master - that's all"43, as Humpty Dumpty notified Alice in Wonderland. However, it is a well-known psychoanalytic fact that masochistic submissiveness and sadistic oppressions become simultaneously manifested at different domains of one's psychological attitude, and effectively compensated as such17,44. Mixing up 'maps with their territories" - i.e. scientific and linguistic representations with the corresponding experiential phenomena that they metaphorically point to - gives rise to objectivistic attitudes and submissiveness to the 'true' nature of knowledge, which may be manifested in form of the tendencies to dominate and oppress at various other levels of one's existential manifestation. Despite this, scientific knowledge truly rests of human willingness to benevolently coordinate each other's experiences by means of accepting, applying and progressing the complexity of the metaphors of science.

In parallel with the externalization of seeming constancies of the co-created perceptual qualities and the wholes composed thereof (such as 'objects' and 'beings'), one forgets that all the constituent qualities and boundaries of these experiential wholes are being incessantly created and semi-autonomously established. The qualities of the co-created 'external world', therefore, become seen as pregiven, despite the fact that they are semi-subjective constructions. 'All objects are indications of processes and the symbols of capability of our neural systems to create stabilities and calculate invariances"41, as Heinz von Foerster noticed. During the child's cognitive development, the relational character of objects and qualities, however, gradually pales into cognitive background, whereas the assumptions of the existence of an objective world take over and become affirmed as the basis for the coordination of subsequent experiences. In fact, the more one becomes successful in stabilizing the perceived qualities in forms of objects with permanent outlines and qualities, the higher the potential for feelings of 'objectivistic' isolation and burdening individuality may be. Cognitive intentions aimed at fixation of experiential qualities correspond to various attitudes of reliance on fixed norms and prejudgments at different organizational levels of consciousness, and could be picturesquely represented by the fixed, focused and rigorous look of eagle's eyes, hesitating and afraid to revise
and reevaluate the foundations of perceptual and reflective cognitive patterning. Aging normally corresponds to such an affirmation of over-stabilized, rigid and routine \textit{a priori} 'recognition' (although always being a 're-creation') procedures in the co-creation of experiential qualities. But as the sunlight becomes reflected from the sea surface in innumerable tiny and tenderly wavering dazzles, a wondering attitude of flexible revisions of one's foundations of thinking may be depicted with similarly sparkling and vivid eyes that with their inquiring attentiveness 'heavenly' seed the qualities they co-create.

The whole history of the evolutionary progress in adaptional capacities, and the alternations of social trends, ethico-aesthetical behavioral norms, conceptual world-views and generations may be seen in the light of the continual fulfillment of Lao-tzu's norm that 'flexibility conquers strength'\textsuperscript{45} (Tao-te-ching XXXVI). As the flexible renaissance of scientific inquiry defeated rigid religious norms and intolerant inquisitional attitudes, rigid approaches of contemporary objectivistc and mainstream branches of science nowadays become susceptible to (and fruitfully enriched by) the flexible standpoints of systems science and other subject-oriented philosophical approaches, enwrapped in novel and contemporary ways for interpreting the ancient ethical guidelines that religious narratives are abundant with, and proceeding according to the norm that 'every scribe which is instructed unto the kingdom of heaven is like unto a man that is an householder, which bringeth forth out of his treasure things new and old' (Matthew 13:52). Independence of the method of scientific inquiry on the content of the probed knowledge has presented a typical flaw during the history of the scientific method, despite the fact that no progress in science could be related to its proceeding along the line of preconceived methodologies or a closed abstract set of rules\textsuperscript{11}. Research methods, therefore, need to continually adjust to their objects of research, whereas the both are becoming subject to change during the evolution of knowledge or complementary observations from different perspectives. From the point of view of physical sciences only, a single molecule of water included in a river or a sea stream may be, for example, investigated through various theoretical frameworks\textsuperscript{46} that involve multitude of
qualities, ranging from atomic and molecular orbitals to hydrogen bonds, density, purity, osmotic and vapor pressure, capillary forces, compressibility, surface tension, cohesive and adhesive forces, thermodynamic quantities, qualities inherent in the laws of hydraulics, gravity, celestial orbits and the qualities from the laws of geometry and trigonometry in explaining tidal effects, the variables of hydrodynamic principles, ecosystemic and biospheric 're-cycling' and the natural purifying of water, and the qualities of meteorology and climatology in understanding and predicting the movement of water within the actual weather patterns. Reducing such a versatility of research perspectives (that adjust their inquiring methodologies to complexity of investigated systems) to a single probing methodology would decrease not only the potential diversity of the optional space of the current knowledge, but narrow or even permanently obstruct the pathways that may lead to novel synthetic conclusions via comparing and correlating various perspectives, which has previosly been shown as the general basis for the advancements in science and philosophy.

Analysis of experiential events by linguistic means presents an inescapable aspect of a fruitful co-orientation of human experiences, although its immanent flaws correspond to an unavoidable fixation of objects and their qualities into mapped symbols and operations of the given formal system of reasoning that entails each transfer of experiential knowledge into the communicative domain of language. Maps, so to say, need to be composed of fixed entities, whereas it is identifying these entities and the literal representations that they comprise not as modest and pragmational metaphors, but as true and universal reflections of the natural order that produces objectivistic flaws in our reasoning. Objective representations of natural phenomena (similar to their linearizations) are only pragmatic efforts that facilitate human-to-human communications related to a mutual co-orientation of experiences, although at the same time they enable an errant elimination of scientists' responsibilities via accepting illusionary observer-independent observational attitudes and identifying 'maps' with their 'territories'. Each application of external causality as the sole explanatory basis (and not as a pragmatic and conventional means for organizing the mutual coordination of
experiences) can be, therefore, translated to an implicit excuse that 'one is not responsible for the observed effects'. However, with acknowledging the co-creational and partly subjective character of the scientific practice and the vital significance of the ethical and philosophical foundations of knowledge for the design and development of R&D pathways (routinely neglected in standard, frequently purely programmic education), a large extent of the irresponsible, inert and programmic aspects of the scientific progress would be able to cede their place to more creative research attitudes permeated with and based on a powerful moral responsibility of the researchers. In order to avoid Kain's irresponsible attitude depicted by the famous words: 'Am I my brother's keeper?' (Genesis 4:9), and the tragical consequences it may introduce, we should keep in mind that responsibilities and creative purposefulnesses, as we have already noticed, support each other on the road to every humane development.

However, in applying one's efforts to cope with the 'streams' of objectivistic attitudes that are inert to subjective experiential effects, there is always an immanent danger of 'falling' to the opposite side of the dynamic co-creational balance, dominated by solipsistic 'whirlpools' that are inert to the productive 'streams' of common experiential features. Whereas Humberto Maturana compared experiential phenomena with an underwater submarine ride wherein - similar to biological cognitive inability to gather any insights into ontological features of the environment - the submarine crew can never form the concepts of 'coastal ridges', 'seas' and 'lands', but only explain them in terms of environmental constraints to the coordination of the submarine's movements, Arthur Schopenhauer started his major work with claiming: 'The world is my representation: this is a truth valid with reference to every living and knowing being, although man alone can bring it into reflective, abstract consciousness. If he really does so, philosophical discernment has dawned on him. It then becomes clear and certain to him that he does not know a sun and an earth, but only an eye that sees a sun, a hand that feels an earth; that the world around him is there only as representation, in other words, only in reference to another thing, namely that which represents, and this is himself'. However, an observer is due
to the ‘blind spot’ effect never able to see his true ‘eye that sees a sun’, as much as he is not able to directly observe and resolve the ontological order of his cognitive environment. All the experiential results of one’s perceptual and ‘representational’ activities emanate from a continuous co-creative ‘dialogue’ between ‘hidden’ epistemological foundations on the subjective co-creative side, and ‘hidden’ ontological foundations on the realistic co-creative side. The concept of co-creational nature of the emanation of experiences might correspondingly present a ‘middle Way’ metaphysical foundation for the construction of philosophical ‘pillars’ as supports for a more profound and clarified empirical investigation of reality and scientific communication of meaning.

From the co-creational perspective, each experiential detail may be regarded as a ‘sign’ that metaphorically points not only to the subject’s deepest values and aspirations that partly comprise the cognitive foundations of experiential co-creation, but to ‘divinely revealing’ messages of ontological origins that partly comprise the realistic foundations of the co-creation of experiential qualities. This ‘hidden’ and somewhat mystical character of the both co-creative sides in their interdependent ‘drawing’ of personal experiences justifies the use of metaphysical and theological metaphors in representing experiential details as the products of the communication between mind and Nature, that is, spirit and God. ‘Eyes and the Sun’ of one’s experience may be, therefore, regarded as reflections of the communication between deep and profound ‘eyes of the spirit’ of the being’s cognitive foundations and ‘Sun-like’ foundations of life on the road towards a mutual evolution of cognitive and informational landscapes of mind and Nature, and the spiritual ‘glows’ that arise in their co-creational interplay. Exploration of epistemological foundations in terms of observing the reflections of the subject’s assumptions and aspirations on the state of his experiential world on one side, and the quest for an ‘angelic guiding voice’ of Nature that pervades the world as emanating from the ontological foundations of the being’s experience on the other side, as well as relating the two, may become regarded as the essence of the true religious studies. It is highly probable that in
the course of such a genuine quest one will realize that discerning the reflections of one side of the co-creative foundations implies an inherent insight into the reflections of the other, so that the words of Meister Eckhart - ‘who wants to get to the foundations of God, needs to get to his own foundations… no one other than God resides in the foundation of soul… here is the foundation of God and my foundation, so that my foundation is the foundation of God… God and me, we are one’ - may apply in accordance with St. Augustine's theological concept of perfect correspondence between 'knowing God' and 'knowing oneself', Joseph Schelling's idea that 'Nature is visible Spirit; Spirit is invisible Nature', and neo-Hegelian, dialectical representation of ontological nature of the world, which is to be mentioned later in the text.

Beneficial consequences of the implementation of the idea of the co-creational nature of experiential qualities may indeed be numerous. Instead of identifying with either objectivistic or solipsistic extremes, the significance and the meaning of the co-creationally arising experiential qualities are placed upon the bidirectional, interdependent and co-evolutionary interaction between 'mind and Nature' (i.e. 'spirit and God'). For, only interactions guided by mutually developing and co-creational character possess the potential to enkindle the sparks of carefulness, inquiring awakeness, love and co-evolutionary learning to an ardent blaze.

_Spiritual and materialistic unity springing out from co-creational thesis_

'It is the glory of God to conceal a thing: but the honour of kings is to search out a matter'
Proverbs 25:2

Two of the most revolutionary theories of the 20th century - quantum theory and the theory of relativity - have stressed out the non-existence of absolute referential frames and the inseparably connected observer-observed interactions. One of the consequences of the framework of reasoning wherein every
observation is *de facto* the one of an interaction and mutual change is that 'understanding of the world' presents, indeed, an indication of the understanding of our own understanding. This is because the co-creational investigation of reality is partly 'through a glass, darkly' observing the indications of natural reality, and partly investigating our own cognitive, biological and ontological nature. 'Observers in action primarily look into themselves. What they describe is their view to how the world looks to them'⁴¹, as Heinz von Foerster observed. Saying that 'the world is fine' may, therefore, be translated to 'I am fine'²³, and *vice versa*. Werner Heisenberg in a similar sense wrote that 'in natural sciences, the object of research is not any more nature as such, but nature exposed to human questioning, and in that sense, man herein faces himself'⁵¹. The co-creational flow of experience may thus be regarded as a continual responding of the 'hidden reality' from one co-creational side to the subject's deepest aspirations and questions with which he approaches the intertwined and simultaneous phenomena of autopoietic existing, perceptual constructing and learning from the other co-creational side. However, the extreme solipsistic attitudes and the ideas of a Schopenhauerean world providing perfect and sole reflections of our being may remind us of the ancient story about Narcissus and his 'mirroring' lake⁵². Thereupon, instead of expecting that Nature presents a passive reflection of mind's questions, concepts and intentions as in Schopenhauer's world-views, adopting the bidirectional character of the co-creation of experiences gives rise to actively communicating, dynamically changing and mind/Nature co-evolving cognitive attitudes pervaded with the awareness of inexhaustible sources of religious devotion, overwhelming joy and humble creativity, immanent in each experiential detail as arising from the conversation between the holistic 'voices' of mind and Nature. The classical, bifurcational indeterminism and the probabilistic behavior of quantum particles, coupled with the proposed co-creational nature of experience, could present the 'pillars' that support a view at the spiritual nature of matter, regarded as inert and mechanistic in the frameworks of objectivistic science. As Leslie White noted, 'Matter can be regarded as a form of thinking, whereas thinking can be regarded as a form of matter'¹⁰. Mihajlo Pupin might
have also had a similar idea on his mind when he wrote the following lines: 'God's spiritual realities are invisible, but they are illustrated and made intelligible by the physical realities revealed in the physical things which are made. According to this interpretation of the Apostle's words the physical and the spiritual realities supplement each other. They are the two terminals of the same realities, one terminal residing in the human soul, and the other in the things of the external world. Here is one of the fundamental reasons why Science and Religion supplement each other. They are the two pillars of the portal through which the human soul enters the world where the divinity resides.

From the perspective of sole spiritual transcendence – which may be, as an ostensible paradox, regarded as a form of 'materialism' – the devotions to 'distant' religious aims may make us ignorant of the nearby beauty and genuine sources of meaning. However, the dynamic spiritual immanence within the co-creational threads of experiential realities opens the door for observing every detail of one's experiential reality as a profound communication between the spirit and God. In a hypothetical world wherein God would occupy the place of an external observer (as was depicted in mechanistic, 'clockwork' models of the Universe during the enlightenment era), ethico-aesthetical qualities that present the basis of culture, science and humanity in general would gradually vanish, in accordance with the Lord Tennyson's verse: 'The stars, she whispers, blindly run'. Senses of wonder that drive the evolution of science, consciousness and maybe even life are inherently related to the existence of horizons and the areas of unknown in the domains of human knowledge, and would similarly become trivialized in a hypothetical world dominated by perfect, all-encompassing power of knowledge which endows humans with the abilities to predict and control all natural phenomena. 'Does God have a big TOE?' (TOE, of course, meaning Theory-Of-Everything as well) has been a lucid question proposed by Leonard Sweet, whereas Leslie White further mentioned that 'theory that explains everything, does not explain anything', thus corresponding to the ideas of Lucretius who through an Epicurean, atomistic and atheistic framework of reasoning noticed how without an inherent indeterminism 'nature would not create anything'.
Aspirations to learn and ingrain the essential human values would wither in a world free from the incessant 'battles' between known and unknown, harmonious and disharmonious, evolutionary and degrading. Every form of learning and evolution is based on the transformations of noise into informations, and the development of any knowledge is correspondingly based on drawing order upon the substrate of chaotically organized and unknown. According to the thesis proposed herein, the incentives for evolutionary advancements and the 'joy of living' are present not in the procedures of finding, concluding and finalizing, but in endless searching, preluding and widening of the cognitive perspectives. For, 'the more thou searchest, the more thou shalt marvel' (Esdras II 4:26). Numerous Biblical narratives, including the story of St. Paul's conversion on the road to Damascus, the book of Job, the stories of Babylonian tower and the city of Enoch may illustrate such a need for uncertainties, horizons and the fields of unknown to partly take the place of unnatural and rigid over-certainties in the domain of human knowledge until a fruitful, driving balance between the two becomes reached. The free will of cognitive guidance and conduct of actions, the inherent indeterminism, the probabilistic character and the overwhelming complexity of natural phenomena, and the co-creational nature of experiential qualities, therefore, go hand-in-hand on the road to cultivation and evolution of the sacred values of life and humanity. Wisdom flourishes upon the foundations of carefulness towards natural systems that could not be predicted and controlled⁵⁷, as is the case with both individual living creatures and the whole Nature. An inability to observe a true and objective nature of any real system presents the 'fuel' that drives the wheels of emergence of new holistic qualities⁵⁸ and new levels of organizational complexity in the evolution of life; for, searching, and not merely finding is the purpose of living. 'The essence of philosophy is seeking the truth, and not its possessing...To deal with philosophy means to be on a way'⁵⁹, Karl Jaspers claimed, whereas Emerson thought that 'a fact is the end or last issue of spirit'⁶⁰, and Henry David Thoreau wrote that 'the highest that we can attain to is not Knowledge, but Sympathy with Intelligence. I do not know that this higher knowledge amounts to anything
more definite than a novel and grand surprise on a sudden revelation of the insufficiency of all that we called Knowledge before – a discovery that there are more things in heaven and earth than are dreamed of in our philosophy. It is the lighting up of the mist by the sun."

On the opposite side from both objectivistic and solipsistic attitudes that imply the subject's domination and manipulation over the environment are positioned some of the ancient religious norms that may be neatly illustrated by the following Buddhist story. In it, a barefooted monk faces rugged and spiky terrain that he has to cross. He thinks of two possible choices: paving the way with a smooth surface or making himself a pair of sandals. As we all know, he opts for the latter way. But instead of the tendencies to either dominate and conquer Nature and submit other people to subjective rules or passively renunciate from attempts to beautify the lives of fellow beings, the co-creational thesis implies an implicit invitation to meet our own nature and revise it according to ancient religious norms as much as to creatively change and improve 'the world around'. 'Seek ye me, and ye shall live...Woe unto you that desire the day of the Lord! To what end is it for you? The day of the Lord is darkness, and not light' (Amos 5:4-18), has in the following sense been recorded as a divine message to human seekers. On the other side, the more one becomes preoccupied with causing merely his own enlightenment, the more he also becomes 'immersed in darkness', whereas living for others coupled with wise and vigilant reevaluations of ethico-aesthetical foundations of the subjective patterns of reasoning and behaving, may present the ultimate key to one's enlightenment. Battling against the environment with the purpose of increasing the subject's short-term opportunities for survival and self-satisfaction (which might be distinguished as an elementary drive underneath the current competitive nature of economical development) may result in the destruction of the essential threads of the environment, without whom the very subject might become extinguished in the end. The only possible route for a sustainable evolution is, therefore, a mutual evolution of the being and its environment. As a result, instead of objects and substantial entities, it is only patterns composed out of complex relationships
that may present the evolutionary 'units of survival'. 'The one who has become great, does not find valuable becoming great\textsuperscript{34}, as Chuang-tzu noticed, whereas the words of Jesus Christ may similarly accentuate the need for a careful orientation towards the foundations of one's knowledge and action that spontaneously give rise to fruitful results of his existence: 'He is like a man which built an house, and digged deep, and laid the foundation on a rock: and when the flood arose, the stream beat vehemently upon that house, and could not shake it: for it was founded upon a rock' (Luke 6:48).

**Revision of constructivist and realistic theses and their merging into the 'middle Way' concept of co-creation of experiential qualities**

\begin{quote}
'Chiaroscuro is all very well, but William Blake tells us firmly that wise men see outlines and therefore they draw them'
\end{quote}

*Gregory Bateson, Mind and Nature*

So far we have seen that constructivist/idealistic aspect of the co-creational formation of experiences implies that both perceptive and abstract elements of one's experience stem from the subject's cognitive roots, so that devotions to re-evaluating, cultivating and sustaining the epistemological foundations - that besides basic logical assumptions comprise deeply ingrained values, aspirations and desires - in a bright and ethical light, presents the way towards improving one's comprehension of the natural order. However, the realistic character of the co-creation of experiential qualities on the other side prevents us from being caught in the 'whirlpools' of solipsistic world-views that may naturally follow from idealistic or radical constructivist epistemological assumptions. The extreme idealistic and realistic standpoints that respectively correspond to pure solipsism and passive representationalism, therefore, become merged into the dynamic subjective/objective balance of the co-creational formation of experiences.

Accepting both realistic and idealistic nature of experiential origins may favorably increase the level of the subjects' responsibility for the qualitative
patterns co-created in perceptive, reflective and behavioral domains. The fact that the cognitive results of the biological activity of a single organism are neither completely incompatible with the experience of others in their idealistic subjectivity nor entirely identical with and reducible to the experience of others in their realistic objectivity supports the proposition of the realistico-idealistic 'middle Way' of the experiential co-creation. However, whereas uniqueness and individuality of experiences present a 'taboo' topic in the objectivistic frameworks of thought, the existence of common and 'shareable' experiences presents a mystery of a similar scope for the solipsistic frameworks of reasoning. Thereupon, whereas the objectivistic standpoints have naturally instigated individual quests for 'self-identity', originality and specialness, radical constructivist standpoints have required an introduction of metaphysical reasons which would account for the existence of common and compatible experiences.

Immanuel Kant's categorical imperative, the principle of relativity\(^6^2\) (according to which a scientific hypothesis becomes instantly refuted if it becomes proven as invalid for two mutual events, despite the fact that it may be valid in describing each one of the separate events; an encounter of two solipsistic cognitive systems would thus be shown as improbable, and the anarchistic 'battles' of pure idealistic stances prevented), Heinz von Foerster's identification of reality with togetherness\(^6^3,6^4\), Ranulph Glanville's ethico-aesthetical imperative according to which one ought to aspire to give more than he has or asks in return\(^6^5\), metaphysical Love\(^4^8\) and the Golden rule of Christianity have been correspondingly invoked in order to overcome the potential dangers of solipsism, inevitably dormant in constructivist world-views.

In relation to the cultivation of aspirations to get rid of solipsistic tendencies at the root of the constructivist thinking, the following Zen story may be recalled\(^6^6\). A Zen disciple wondered about the position of a nearby stone within the order of the Universe. Approaching his teacher, the disciple offers a possible answer in spirit of the idealistic teaching by asserting: 'It should be in my head; for the whole world is an objectivization of mind'. The teacher, however, replies: 'Your head must be a heavy one; for you are bringing a whole stone...
everywhere you go'. From the co-creational point of view, the stone would have presented a perceptual product of an interplay between mind and Nature in their co-creative evolutionary interaction. Idealistico-constructivist attitude according to which the qualities of the stone become constructed by the perceptual and interpretational foundations of one's being presents, therefore, only one side of the co-creational organization of experiences. Its other side corresponds to realistico-objectivist side of experiential origins, which can correct the autistic imbalance of solipsistic attitudes by provoking one's attentiveness towards the social character of experience, i.e. experiential aspects governed by benevolent quests for common meanings, sharing of experiences and an implicit togetherness. The sense of responsibility that emanates from knowing that our deepest values and holistic (so-called 'inner') qualities outline and guide the cognitive processes invigorates the stable roots of the co-creational organization of our experiences, whereby ethico-aesthetical attitudes of giving, 'stretching hands' and devoting our deeds to joy and happiness of others fosters an eventual blossoming and fructification of the effects of our creativity.

However, finding the right balance between a responsible 'constructivist' placing of the referential center for all of one's ideas, propositions and expressions right at the epistemological and ontological core of one's being, and empathic 'realistic' devotion to observing 'the world from the eyes of the others' presents a hard, but not an impossible task that will be in more details discussed in the last section of this paper. At this point we can only note how truly enlightening actions responsibly and implicitly refer to the cognitive core of one's being, but point towards the beauty and significance of the others. For, 'if I honour myself, my honour is nothing' (John 8:54), as the words of Jesus Christ remind us. The inherent drives of human actions and of the co-creation of perceptual and reasoning patterns of the experiential worlds need to be always 'facing' others, and as such present the ultimate 'patterns that connect' living creatures across the intricate vastness of the Universe. The classical, objectivistic approach to studying 'natural' phenomena and the modern, constructivist approach to organizing 'experiential' phenomena could be, therefore, considered
as complementary aspects of an ultimate general framework for describing and managing experiential realities, whereby only in their Yin-Yang dance of their mutual support may hide the way for a continued evolution of the planetary consciousness.

A reference to Ernst von Glasersfeld's example of observing celestial constellations as an illustration of the radical constructivist thesis\(^7\) will be drawn as a conclusion to this section. In this example, a being wonders beneath the sky interspersed with stars about their and the observer's origins, purpose and evolution. Whereas from the constructivist point of view the appearance of a specific constellation depends on subjectively performed perceptual operations during the process of observing, from the realistic point of view the appearance of the constellation is also dependent on the objective standpoint which the observer occupies in relation to the celestial order of the Universe. Whereas the subjective aspect of the experiential co-creation implies that each specific biological structure gives rise to unique experiential qualities, the realistic aspect of the experiential co-creation implies that each specific observational perspective additionally limits the optional space of perceptually constructable patterns.

Perception itself presents an active construction of subjectively stable qualitative patterns in reference to which one can viably coordinate experiences. Then, the subject's shifts of attention present a second-order element of the experiential construction through which one organizes the primarily formed perceptive boundaries into meaningful forms and objects of his experience. This attention can be more literally presented not as a beacon that shines a light on objectively existing forms, but as a neural pulse focused on sensory differences. Conscious character of the attentional shifts may be evidenced by the so-called 'cocktail-effect'\(^1\), which accounts for the fact that surrounded by numerous conversations at a party, one can by reflective flips of attention pick the one he is interested in. These shifts of attention are determined by the complete subject's history of inner processes and structurally coupled interactions with the environment. They are also evidently guided by the subject's intentions,
anticipations, aspirations and values. By means of an active and dynamic redirection of attention along perceptual differences, one constructs individual stars and their celestial patterns. Also, in order to perceive the plural character of a stellar constellation, one needs to be capable of reflecting on the similarity of the perceived starry forms, which implies a partial awareness of one's own cognitive operations and the existence of 'self' thereupon.

Primary perceptual qualities in terms of raw experiential differences are thus being co-created, whereas the interpretational construction of the objects of one's experiential reality may be seen as arising from the similar interplay between the subjective activity of selecting and the previously co-created perceptive outlines that guide one's inner processes of organization of experiences along the line of spontaneous perceptual categorization and reflective thought. Every detail and aspect of one's experience may be, therefore, regarded as a dialogue between mind and Nature, and such an enlightening proposition may present a starting point in bridging the traditional gap between the disciplines inclined to emphasizing either subjective or objective aspects of experience. Through such a perspective, the subject can in the idealistic/constructivist spirit regard every detail of the world of his experience as verily himself, and *vice versa*: in the realistic spirit, the patterns of the 'hidden reality' could be regarded as inherently ingrained within every aspect of the subject's cognition (which can be additionally witnessed by the fact that the similar patterns of fractal nature pervade the Universe at all scales). The subject outlines the starry patterns, and the starry patterns outline his being. Every detail of the subject's experience presents a way that leads him to face not only the reflections of his own understanding of the essence of being, but the providential reflections of the divine ontological essence of Nature as well. Two elementary principles of radical constructivism (‘knowledge is not passively received, but actively built up by the cognizing subject’, and ‘the function of cognition is adaptive and serves the organization of the experiential world, not the discovery of ontological reality’) may, therefore, be enriched in favor of a more significant role of 'hidden' ontological organization of the world in the processes of co-creation of one's experiences.
'The stars are beautiful because of a flower that cannot be seen', the Little Prince once observed, reminding us that the foundations of our observations, interpretations and reasoning present a 'hidden guide' of the experiential organization, whereas on the other hand, a 'hidden guiding force' of divine Nature also manifests itself in every detail of the being's co-created experiential world. The outcomes of their endless co-creational communication may incessantly point to the ways of beauty and harmony in an endless story of the spiritual evolution of cognitive beings, proceeding through cultivations of inner aspirations to become and endow others with some similar starry sources of planetary life, and shining with light that arises from a deep meditative inwardnesses and spreads to the world without asking for anything in return.

If anyone asks now about 'where the stars that we see are', we may become deeply pondered and recall that whereas from an objectivistic point of view, the correct answer would be: 'In the sky', the constructivist response might be: 'In you'. But from our co-creational perspective, an answer which says: 'On the way that connects the hidden foundations of Nature and you', may be presented as a support for numerous succeeding, both fruitful and wondering moments of contemplation.

Part II. Application

"The essence of knowledge is, once you have it, apply it"
Confucius

Circularity and mutuality as immanent in the concept of the Way

"The Sun don't go down,
it's just an illusion caused
by the world spinning 'round"
Wayne Coyne, Do You Realize
In accordance with this contemplation, the proposed co-creational nature of experiences implies that every communicational pathway, irrespective of its complexity scale, presents an act of co-creation permeated by bidirectional causal interactions and transformational mutualities. Whenever one observes hypothesized linear, unidirectional and chain-like causal interactions, he may eventually realize that such models are at best pragmatic approximations aimed for representing specific experiential relationships in form of analytically solvable equations, despite the fact that those relationships always present circular causal interactions and non-linear phenomena in experiential realities. For example, if anyone proposes that it is the 'spirit' of the current era that gives rise to actual human expressions, values and behavioral patterns, a reasonable response would be: 'Yes, but it is the individual creative efforts that also give rise to the 'spirit' of the current social era'. Or if someone proposes that it is the inherent and cultivated human values that define the qualities of human creative achievements, a reasonable response would again be: 'Yes, but it is the qualities of human deeds that partly shape the inherent values of individual beings'. And so on.

However, linearization of experiential/natural non-linear phenomena has become such a ubiquitous practice in scientific simulations that many young scientists nowadays erroneously believe that all natural relationships might be perfectly represented by linear equations. It becomes forgotten that even the famous Einstein's equation \( E = mc^2 \) was set up after omitting an infinite number of its nonlinear terms in the process of the equation linearization. Therefore, instead of invoking experientially observed phenomena in their thorough complexity, small and harmonic oscillations, waves of small amplitudes in homogeneous environments, small temperature gradients and atoms as incompressible spheres become employed with the purpose of composing the given representations in terms of analytically solvable, linear models. Also, whereas linearized scientific models are based on postulated unidirectional dependencies between limiting conditions and specific variables of the model, in real circumstances modifications of a single systemic variable affects all the others, so that in case of complex natural systems it becomes impossible to
control all the inherent correlations without drastic simplifications of the investigated models through the introduction of approximations related to neglecting the inter-variable interactions. At this point, it can be noted that the linearity of quantum theory has been adopted on the account of introducing infinite-dimensional space, whereby each finite-dimensional non-linear model can be routinely transformed into an infinite-dimensional linear model.

The ideas of linear causality may be traced back to Aristotle who postulated that 'we regard our knowledge as complete only if we know the initial cause', and through such an assumption established the foundations of logic. However, the historical refinement of human knowledge has corresponded to transitions from pragmatically overlinearized models of physical systems to the ones that invoke interdependent variables and circular causal arrangements, as can be exemplified by a few paradigmatic shifts during the history of science. Aristotle's general theory of movement (that in its derivative form corresponds to Newton's law of inertia) was replaced by Newton's law of reciprocal action that emphasized not unilateral, but mutual action of objects in contact. Independence of space and time on object (i.e. mass) movements in Newton's classical physics was replaced by the dependence of space and time coordinates on the observer's position in Einstein's special theory of relativity. However, the definition of space-time coordinates affected by the presence of mass in the latter theory was replaced by the mutual effects within mass (energy) – space-time relationship through introducing the concept of space-time 'warping' in the presence of mass (so that modified geometries of space-time define new trajectories for the mass movement). Numerous other fields of scientific research nowadays witness transitions from applying more reductionist, hierarchical models of the investigated systems to acknowledging more holistic, multihierarchical causalities that extend throughout all the organization levels of the given systems.

The problem of 'chicken and egg' can, in fact, exist only in the frameworks of reasoning pervaded by the neo-Aristotelian idea that if one traces experiential relationships back enough in time, one would eventually come to the initial cause of their experiential origins. This approach comprises the basic teleological
problem of linearized world-views, which can be evidenced as an impossibility to apply the standard logic in explaining the functions of the simplest cybernetic, feedback loops without generating obvious paradoxes. As a matter of fact, by observing any control loop, the definition of its 'controlling' and 'controlled' parts would present an arbitrary choice of the observer\textsuperscript{70}. If we watch an acrobat in the act of orange juggling, we may ask whether it is him controlling the oranges or it is the oranges controlling him. Control in terms of imposing constraints over the system's behavior is always dual, so that a necessary precondition of controlling the controlled is to let the controlled control the controlling system in the reciprocal amount\textsuperscript{47,70}. Both the famous Juvenal's question 'Quis custodiet ipsos custodes?' and Bertrand Russel's paradox may therefore exist as insolvable intricacies only in the frameworks of reasoning that rely on employing linear causal relationships as explanatory bases. As a correlation to this, Ranulph Glanville proposes a joke: 'The class Skinner was lecturing to decided to smile when he moved to the right and frown when he looked to the left, while lecturing. He ended up standing in the rightmost corner. But the students also had frozen grins on their faces. The control was mutual and interactive, and as unlike Skinner's behavioural model as you can get until you ask the question about why the rats running the maze correctly make the scientists smile\textsuperscript{70}. The observation that an increased level of 'mastery' over natural events and an engagement in the pragmatic redirection of their flow towards human 'millwheels' leads to both an increased disciplining of human beings at all existential aspects and an increased level of 'slavery' in relation to the same controlled natural phenomena (manifested as diverse attachments to those, partly self-imposed environmental constraints), may be naturally inferred thereupon.

Even in the case of a thermostat – as simple cybernetic circuit as it can get - an observer can not tell for sure whether it is the thermostat causing the work of the heating/cooling system that maintains the stable temperature in a given environment, or it is the temperature causing the work of the thermostat. A reply to Chuang-tzu's question, 'Is it the clouds that make the rain or it is the rain that makes clouds?'\textsuperscript{34}, may comprise pointing to circular ecosystemic causality wherein
the clouds form rain, but the rain forms clouds as well, similar as humans form their deeds and values that indeed make humans in a wider existential context. The building atomic elements of life are in the constant state of circulating between atmosphere, oceans, biological structures, rocks and sediments of the biospheric planetary whole, whereas as far as the social aspects of the eco-science are considered, John Kenneth Galbraith has written that all 'economic life, as always, is a matrix where the result becomes a cause and the cause becomes a result.'

Cognitive beings have arisen from the foundations of Nature, which has provided ontological constraints and drawn the limits to their rationalizing and comprehensional abilities, whereas human deeds in terms of tools, technologies and shaped communications modify the 'Nature' as humans see it. Human actions influence human reasoning and vice versa. For example, human reasoning in relation with the natural constraints co-creates sciences and technologies, which through stretching the existing and opening new optional spaces present environmental stimuli that are included in the co-creation of new thinking patterns and creative tools in relation with the other, subjective co-creational side that belongs to human cognitive foundations. For instance, stone carving tools, a chalkboard, a fountain-pen, a typing machine and a computer text-processing software (with the revolutionary facility of erasing and copy-pasting) stimulate specific writing skills, features of written expressions, and compositional pathways for the linguistic 'sculpturing' of ideas. Also, each form of human thinking has blossomed upon the soil of a specific social tradition, and as such can be visualized as a part of the hermeneutic circle wherein the social grounds of one's abstract concepts applied to comprehend experiential phenomena present one, and the subjective aspect of the internal construction and re-interpretation of these concepts presents another co-creational side, which results in subjectively unique and yet 'objectively shareable' interpretations that may enrich the thinking patterns of others and further build the tradition of social knowledge. Through such an understanding of the potential existence of enlightening 'configurations' of experiential interpretations and the evolutionary
prosperity of humans only in a pregiven social context, end points of the imperative chain of Arne Naess' Ecosophy-T, 'Self-realization! - Self-realization for all beings! – Diversity of life! – Complexity! – Symbiosis!' can be interlocked into a single circular chain. Circular causality in the domain of biology of consciousness can be acknowledged not only through the observation that physical structure of the subject co-creates its thoughts and emotions, whereas the latter co-create its physical structure, but in the mutual, feedback interaction between abstract reflections and direct perceptual experiences as well. For, whereas experience (immersed in social interaction media) poses limiting conditions for the reflective construction of its 'maps', by investigating the latter models one can discern pathways for re-search of novel details on the 'territory' of direct perceptual experiences, which may lead to the creation of novel maps with the directions towards enriched experiences and horizons that initiate novel and more profound quests for knowledge. Hinduistic and neo-Hegelian ontological representations of the world have depicted it as reflection of the divine qualities of Nature (as one co-creational side in the emanation of every detail and aspect of one's experiential world) in the eyes of wondering beings (as the other co-creational side) that behold eternal beauty and sources of divinity in every detail of the world, which exists for the sake of living beings that mirror the divine beauty of Nature. 'God had become man in order for the man to become God', observed Athanasius of Alexandria, in accordance with the Biblical record of 'God's words': 'I am who I am (i.e. I become what I become)' (Exodus 3:14), pointing to an endless process of becoming and evolution of Nature, and not finding and concluding, but searching and preluding as the paths that lead to glimpses of an ultimate meaning and beauty of existence.

Whereas in the world of mechanics, Newton's law of action and reaction may illustrate the fundamental principle of change according to which it becomes impossible to exert an impulse on a body without the body exerting the equal force in the opposite direction, in the biological domains autopoietic features of living organisms and their ecosystemic 'hives' present an evidence in favor of their inherent circular organizations wherein each entity, irrespective of its
complexity and size (i.e. molecules, organelles, cells, tissues, organs, organisms, communities, ecosystems), has the function of creating all the other entities. Due to its inherent self-production character, every living form presents a giant harmony of processes in which there is no distinction between the 'creator' and the 'created', as well as between the actions of existing, acting, cognizing, learning and creating. A cognitive subject's attempts to comprehend such systems may be regarded as a dizzying 'application of an instrument of analysis to analyze the instrument of analysis', whereas Gödel's theorem may have already pointed one to the fact that 'if human mind would be simple enough to be understood, then it would be too simple to understand it'. Stepping out of the whirling perceptions based on solipsistic self-referring, and into the readiness to observe 'mysterious' reflections of one's aspirations and the deepest, directly invisible qualities as the bases of one, subjective co-creational side of the experience formation from the other, divine co-creational force of Nature, and engaging one's creativity in dialogues and relationships with attempts to maintain the subtle balance between referring to the foundations of subjective epistemological attitudes and the realistic sharing of experiences, presents the way to engage one's being in endless self-realizing evolutionary cycles.

Whereas linear and single-variable models of natural phenomena may give rise to the norms of conduct established in accordance with the ideals of maximization and 'grow big fast' strategies, only optimizational attitudes can in reality present simultaneously sustainable and evolutionary paths of development. Monotonous and context-independent values do not exist in the biological world, whereas the tendencies towards linear maximization normally become reflected on an increased rigidity of the system's performance and decreased susceptibility and adaptivity towards environmental stimuli. Systems analyses have shown that economic projects guided by maximization ideals can provide long-term viable and sustainable effects only in rare conditions, when an array of systemic variables coincides in giving a set of convenient outcomes. Game theory models may provide a large body of evidence that the tendencies to reach solutions in a quick and bustling manner, irrespective of their harmonic and
prospering character, can lead to long-term disharmonies and misunderstandings\(^78\), so that even the balance between a growing harmony and a reigning disharmony needs to be maintained in the framework of sustainable and globally prosperous management, despite usual tendencies to bring forth harmony and enlightenment to the areas of strife and ignorance in a fastest possible way. Interference of a multitude of circular relationships provides unsurpassable obstacles to modeling attempts, as can be exemplified by the hypothetical case according to which even if a perfect, zero-waste ecological environment would be created, anthropomorphic influences manifested as pure variations in the rate of renewable utilization of ecosystemic resources could create unpredictable effects on the resulting behavior of the individual ecosystemic wholes and the eco-patterns of the whole biosphere. Predictable and surprising, repeatable and renewing character - in a sense that 'inside every white box there are two black boxes trying to get out'\(^79\), as Ranulph Glanville observed - typifies all natural appearances and presents the drive for a continual re-drawing of the limits and horizons of the human co-creation of perceptual and abstract experiences.

The relation between linear and unilateral, and non-linear and bidirectional interactions can be analogously interpreted as a relation between irresponsibility and responsibility of human interactions with the corresponding environments. Every form of fine perceptual coordination and learning behavior is based not on inert performances that follow pre-established rules of conduct, but on cultivating sensitivity towards feedback impulses of the environment upon the subject's subtlest actions and reasoning patterns\(^80\), and an openness to revise and improvise preconceived expressions. In order to become a successful dribbler, a soccer player needs to conduct his movements in relation to the gestures of an opposing player. Exceptional educational, lecturing and management approaches are, likewise, based not on 'blind' following of preconceived guidelines, but on instigating one's feedback sensitivity to responses from the other sides in the interaction and accordingly correlating one's expressions. The idea that learning presents not a passive absorption of environmental stimuli and unilateral,
'training' modifications, but 'co-evolutionary' changes of the being and its environment altogether, may be evidenced by notifying such action-experience feedback sensitivity as inherent in the essence of every learning procedure.

A material structure typically receives the attribute of either an organism or an active device component when its behavior in terms of inherent relations and the relationship between input and output signals becomes non-linear. Systemic and cybernetic descriptions of biological entities and natural phenomena in terms of relationships (with the inherent indeterminacies and unpredictabilities) are nowadays becoming merged with their ‘substantial’ representations in terms of fixed, permanent and localized entities that are only through structural dissipation and metabolic exchange of energy in contact with their environments. The presumed independence of physical particles has been shown as illusory from the quantum perspective, and in the quantum field theory particles are represented as quantized states of the field that extends throughout the whole space. As quantum descriptions of atomic entities in terms of relations that figure between the hypothesized entities and their environments have been regularly replacing the classical representations of atoms as entities that are isolated, autonomous and independent on the context of their existence, neither can the living beings be seen anymore as isolated bodies that could be described by René Descartes’ definition of substance as ‘a being that so exists as to require nothing else for its existence’, but as harmonies of interactions spread between them and the rest of the world, so that it can become clear that human beings do not possess their values, aspirations and emotions, but that they are them. Instead of experiencing one’s subtle thoughts, desires and feelings as ‘screams suffocated by darkness’, one may reasonably regard that ‘the universe is like a dome: it vibrates to that which you say in it, and echoes the same back to you; so also is the law of action: we reap what we sow’, as Inayat Khan observed, as well as be reminded that ‘among the appliances to transform the people, sound and appearances are but trivial influences…the superior man being sincere and reverential, the whole world is conducted to a state of happy tranquility’, as Confucius thought. Also, similar as musical chords present more than the sum of individual tones that
compose them, the richness of the relational character and holistic nature of all the natural systems and experiential phenomena develop in parallel.

One of the significant ethical and developmental implications of the fact that all experiential qualities and, correspondingly, all natural interactive phenomena and types of communication may be regarded as reflections of a 'way', is that the willingness to continually change and mutually transform presents an attitude that provides the basis for participating in any prosperous worldly communication. Every process of inquirious, open-hearted and learning encounter with others is pervaded by one's readiness to change and modify itself. 'If you want to find yourself, change!' has correspondingly been Heinz von Foerster's imperative, whereas Heraclitus' norm was that 'through its changing, the world as One becomes sustained'. The co-creational character manifested in form of mutual changing in any social interaction of values, world-views, self-imposing constraints and meanings presents the way of communication that carries wide potential benefits comparing to unilateral, controllable and manipulative interactions where the sides in interaction are resistant to change.

The behavioristic approach which justifies manipulative attitudes and educational conditioning wherein the 'teaching' system influences and controls the 'taught' system in a unidirectional manner can be disregarded in face of the cybernetic principle of requisite variety which states that the system of a lower complexity could not control the system of a higher complexity. Autopoietic perspective according to which living beings present feedback-permeated, self-organizing and operationally closed systems, and as such autonomously create their own experiential worlds in accordance with the raw perceptual differences that arise at the interface between their biological structures and the corresponding environments, presents a general basis for accepting the process of co-modification, co-learning and co-evolution as the inherent process of any biological and physical communication. It seems, therefore, that all the effective educational approaches are based on the willingness of not only 'taught', but of the 'teaching' side as well to change.
Significant differences between the ethical approaches inherent in Christian and Buddhist theologies have already been mentioned. Namely, whereas the Christian concept of 'love' may be understood as a representation of a force that changes the world while maintaining the constancy of qualities of the 'forcing' side, the Buddhist 'empathy' may be regarded as a humble productive force that is inwardly oriented towards changing and improving the very subject and, thereupon, quietly and spontaneously, the whole nature. 'Buddhas could only point out the way', Gautama Buddha said, whereas healings and 'moving the mountains' were part of the divine revelation of the Christ's teaching. Anyhow, extreme attitudes that correspond to meditative inwardness and renunciation from the world (and searching for the ultimate 'treasures' within) on one side, and 'blindness' by the features of 'external world' (that initiates endless searches for the 'treasures' of life that are always 'somewhere else') on the other, are thus through the co-creational 'middle Way' led to the same source wherein every treasure is acknowledged as arising via relations between the subject and its environment in physical, social and ecological, mind and Nature in metaphysical, and soul and God in theological frames. Although a similar dichotomy may be found in the relation between Taoism and Confucianism, in a dialogue recorded by Chuang-tzu Confucius observed: 'For a long time I have not occupied the place of a being that keeps abreast with the process of changes. But if I myself do not behave in accordance with the process of changes, how can I hope to change other beings?' 'Bravo Chiu, now you know!', allegedly replied Lao-tzu.

Whereas the attitudes of faith can be applied in relation only to uncertain aspects of one's experiential development, and as such can exist only in cognitive domains where the tendencies to reach final proofs, conclusive evidences and ending summaries are partly discarded on the account of developing a mindset guided by a never-ending adventurous quest for knowledge and the corresponding readiness to continuously evolve and change, a direct correlation between a true religiousness and the questioning and wondering 'frame of mind' can be proposed. The blossoming of Christian love is also inherently related to one's openness to change, as much as sincere prayers are conditioned by one's
receptiveness to fundamental cognitive 'turnovers' in the acts of 'forgiving', mutually directed to others and oneself. Such inquirious and wondering cognitive standpoints may be, thereupon, proposed as another essential thread that links the realms of science and religion. However, as has previously been notified, any inquiring attitude necessarily rests on a balance between firm 'leaning' of one's reason upon premised ideas that cannot be empirically derived, and one's receptiveness in absorbing novel influence and perturbing one's biophysical and conceptual settings, so that the more diversified and enriched one's explanatory framework is, the more opportunities there should be for questioning and experimenting on their bases, and vice versa. For it is through learning of and adopting diverse experiential perspectives that the potential for healthy development of one's own conceptual framework used for explaining experiential phenomena becomes increased, and vice versa.

Besides the fact that there can be neither an 'observer' without an 'observed' (i.e. living without cognizing) nor an 'observed' without an 'observer' (i.e. objective observation), each observation process implies mutual transformations of both the observing and the observed system. Devastating effects of disregarding environmental responses upon one's actions can be evidenced by an observation that the social transition from invention and small-scale application of originally bidirectional radio-communications to their massive implementation in form of single-directional information media marked the following decades with a worldwide proliferation of numerous dictatorial regimes. In that sense, the actual emphases on entities, nouns, monologues and amphitheatrical one-to-many lectures, unilateral interactions and unidirectional communication media should in certain extent cede their places to feedback-pronounced, participatory and 'open-source' communications, as well as to relations, facings, encounters, meetings, verbs, dialogues, round-tables and mutual interactions in order to restore the fruitful unidirectional/bidirectional balance within the contemporary societies. However, in such balancing attempts there always lies an immanent risk of swinging the tackled imbalance to its opposite side, which would in this case correspond to an excessive...
decentralization of communications, and as such may be reflected on an increased level of disorganizing interference of the multitude of ideas and world-views. Identical risks of either an exclusionary ignorance towards novel and paradigmatically unfitting ideas in the social organizations whose cognitive members are connected by the objectivistic bases for organization of experiences and their 'exchange', or a potential anarchism in the subjectivistic society permeated by the ideals of erasing all common and 'objective' criteria for the evaluation of relevancy of ideas and world-views, are immanent in attempts to balance realistic and idealistic aspects of individual experiences that govern the dialectical evolution of knowledge at the social level.

In that sense, it may be recalled that it is not only that linearity presents an essential aspect of every advancing and evolutionary process, but through its association with an irreversible quality of time it may be said to comprise an essential aspect of every natural and experiential interaction. The irreversible character of thermodynamic phenomena, inherent in the physical substrate of experiential reality, implies partially unidirectional character of the evolution of physical systems, manifested through their 'arrow of time' dimension. As the movements of walking forward combine circular, cycling movements of feet and the linearly directed propulsion of the body's center of gravity, the evolution of life and cognition is marked by their spiral character that combines assimilative periodicities and seeking novelties, as well as 'visions' and 'revisions'. Metaphor of the spiral with its character of simultaneous recurrence, yearning to 'squat back' to the central beginnings of its being and becoming, and 'adventurous' streaming forward to meet novel circumstances, ideas and challenges, may concordantly depict the balance between periodicity and novelty that pervades all experiential/natural phenomena at various time and complexity scales. Whereas on one side Nature provides cognitive beings with essential 're-sources', the beings are engaged in a continual 're-search' that enables their survival and evolution, and correspondingly all natural, ecosystemic and cognitive phenomena are established on re-current patterns that in always novel ways combine repeatable and novel aspects, so that the cognitive research and evolution can
propagate immensely. 'The sun also ariseth, and the sun goeth down, and hasteth to his place where he arose. The wind goeth toward the south, and turneth about unto the north; it whirleth about continually, and the wind returneth again according to his circuits. All the rivers run into the sea; yet the sea is not full; unto the place from whence the rivers come, thither they return again' (Ecclesiastes 1:5-7), Ecclesiastes observed, whereas Confucius noticed that 'every day the sun shines with a new light, and rivers incessantly flow with new waters'. All human achievements as various forms of the all-pervading music of life may need to reflect such a balance between sustainability and evolution in every aspect of their creative efforts and results. In the sense of recalling such a linear/non-linear balance, we may be again reminded of Chuang-tzu's Taoistic teaching of the ethics of tracing and drawing the optimal, 'middle Ways' with one's existential and spontaneous 'shining' of relations of one's being: 'Tao is not choosing between this or that; it is moving along with all of them'.

*Dialectical reflections of the concept of the Way*

'To those who think like us, things all dance themselves: they come and hold out the hand and laugh and flee - and return. Everything goeth, everything returneth; eternally rolleth the wheel of existence. Everything dieth, everything blossometh forth again; eternally runneth on the year of existence. Everything breaketh, everything is integrated anew; eternally buildeth itself the same house of existence. All things separate, all things again greet one another; eternally true to itself remaineth the ring of existence. Every moment beginneth existence, around every 'Here' rolleth the ball 'There.' The middle is everywhere. Crooked is the path of eternity.'

Friedrich Nietzsche, *Thus Spake Zarathustra*

The relational character of all experiential qualities implies that each logical or linguistic emanation of knowledge will comprise implicit dichotomies. Also, circular causalities, shown as typical for all experiential relationships in the previous section, presented in terms or opposing and contradictory logical assertions comprise 'mirroring' dialectical confrontations wherefrom novel levels of understanding can be reached. When literally understood, such linguistic
dichotomies are typically comprehended as pointing to an implicit separateness of 'observer' and the 'observed', and 'controlling' and the 'controlled', so that their subjective, arbitrary and inseparably mutual co-creational nature becomes disregarded on the account of cultivating 'objective' attitudes in their subsequent usage. However, all qualities in general comprise relations between certain polarities, and consequently all qualities imagined in the domain of abstract, reflective knowledge necessarily exist in forms of contrasts to their opposites. In that sense, Søren Kierkegaard observed that even 'being a Christian is possible only contrary to something; when the contrast is diminished, being a Christian becomes nonsense'\(^8\). Such a dialectical conflict of opposites that presents a necessary precondition for attaining novel synthesis pathways and evolutionary stages is reflected in numerous theological concepts, whereas the most notable examples may be found in the Christian parables and Hinduistic imagery depicted in Bhagavad-Gita.

Dialectical approach to the enrichment of individual and social understanding of experiential reality, comprised of confronting perspectives, their constructive comparisons and arrivals at novel syntheses and world-views and their comparisons at higher levels of organizational complexity, naturally emanates from the concept of the Way. Swami Vivekananda, whose name means 'happiness in discerning', stood in the defense of dialectical and confrontational verisimilitude of ideas by saying: 'Any attempt to bring all humanity to one method of thinking in spiritual things has been a failure and always will be a failure…If you and I and all who are present here were to think exactly the same thoughts, there would be no thoughts for us to think. We know that two or more forces must come into collision in order to produce motion. It is the clash of thought, the differentiation of thought that awakes thought…Variation is the sign of life, and it must be there'. Each perspective of comprehending the natural order in its entireness provides essential complementarities to the sum of all other perspectives (as in the Hinduistic story of many people describing an elephant in the dark), and carries as much of insight into the 'real' order of things as it carries delusionary aspects that derive from its 'blind spots' that correspond
to invisible assumptions and innate patterns of one's observations and reasoning. Or as Charles West Churchman observed, 'In the nature of systems is a continuing perception and deception, a continuing re-viewing of the world, of the whole system, and of its components. The essence of the systems approach, therefore, is confusion as well as enlightenment'.

A recent game theory model has shown that the optimal way for the emanation of goodness and love in the world would necessarily be paved by hardship and misery. From the framework of systems science we know that a precondition for the existence of 'something' is the existence of 'nothing', whereby the beauty of music and the twinkling stars is similarly conditioned by the moments of silence and the dark interstellar spaces between. In one Sufi story the sultan invited the best Chinese artists, trained in drawing paintings in vivid and lively colors, to ornament one wall of the interior of his palace, and Byzantine masters, trained in the art of polishing and producing perfectly clean and shining walls, to ornament the opposite wall. When the work was finished, a magnificent interior of the palace was revealed, for the two creative sides had been during the ornamentation vis-à-vis reflecting each other's approach, meaning and beauty. Such a concept of development and evolution of natural systems through reflections of opposing qualities resembles the principle of the formation of a hologram. Namely, a hologram gets formed by an interfering comparison of two laser beams, one of which has the purpose of representing all the variations in luminescence, whereby the other provides a monotonous reference signal of the highest achievable levelness. Correspondingly, more pronounced differences that give rise to experiential phenomena lead to their clearer and brighter outlook. Therefore, maintaining the reference level of high purity and 'nothingness' through meditative attitudes on one side and learning to 'draw' ever finer and more diverse differences at ever subtler details of one's experience through practicing attentiveness and a 'wide-awake' inquiry on the other, may thus present the complementary interaction that can lead us to embodying the Confucius' ideal which states that 'ordinary men wonder in front of extraordinary things, but wise men wonder in front of ordinary ones'. Implicit
subject's values may also be regarded as 'standards'\textsuperscript{21} that provide selection criteria as 'semi-guides' of the processes of perceptual and reflective co-creation and interpretation of experiential phenomena, which explains why in certain extent 'we do not see the world the way that it is, but the way we are', as the Talmudic saying goes.

Simultaneous separateness and connectedness, apartness and unity that the symbolism of the Way presents also corresponds to depicting experiential realities and ontological organization of the world in terms of an all-pervading music, arising from the incessant moving of natural entities 'to and from' each other, so that through alterations of the thetic aspirations to empathically unite and the antithetic tendencies to restore individuality and self-creativity, novel synthetic harmonies of knowledge, being and cognitive beauty are being produced. Ontological reflection of the proposed co-creational nature of experiences may, therefore, correspond to neo-Hegelian, dialectical relationship between mind and Nature. According to it, divine Nature projects itself in the multitude of cognitive perspectives with the purpose of 'observing its own beauty'. Holograms may be, therefore, due to their fractal nature according to which each part thereof structurally reflects the order of the whole, again employed as neat metaphors for describing both the ontological organization of the world and the experiential distribution of sources of potential cognitive enrichments\textsuperscript{96,97}. 'Absolute spirit is the one who from eternal and self identical being becomes other to itself and that other recognizes as the very self', were the words of Friedrich Hegel\textsuperscript{85}, according to which not only the Hubble space telescope\textsuperscript{98}, but reflective beings as well present, so to say, 'eyes of the Universe'. In order to be able to observe, the world needs to divide itself to an 'observing' and an 'observed', which implies that every single perspective of this observing would be partial and incomplete. The origins of the multitude of beings, experiential perspectives and experiential time flow may be derived thereupon, whereas constant changes in perspectives and syntheses based on their complementarities present the avenues for avoiding permanent 'blind spots' of one's reasoning and forming as complete and integral world-views as possible.
On the other hand, mutual causalities (as outlined in the previous section) and symmetrical divisions of experiential uniformities to complementary, mutually 'mirroring' sides with every cognitive distinction drawn and each corresponding informational enrichment of cognitive and natural landscapes, presents the key to explaining one's 'karmic' finding of oneself in experiential world that perfectly corresponds to one's spiritual evolutionary stage and the actual cognitive attitudes, and sudden 'revelations' that 'the whole world may indeed be the reflection of one's spirit'. One's experiential world may at each moment be realized as the only possible and ideal reflection of the spiritual essence of one's being in the flow of their 'structural coupling', so that it can become clear that only through loving care and sincere devotion to 'save' and enlighten details and beings of one's experiential world, one can enlighten the spiritual and cognitive foundations of his being, and vice versa.

'Structural coupling' and co-evolution as preconditions for each evolution

'O chestnut tree, great rooted blossomer,
Are you the leaf, the blossom or the bole?
O body swayed to music, O brightening glance,
How can we know the dancer from the dance?'
William Butler Yeats, *Among School Children*

The balance between the operational closeness and thermodynamical openness of all biological, cognitive systems may be acknowledged as a biophysical reflection of the proposed co-creational nature of experiences. While the operational closeness provides beings with the capabilities to autonomously construct and interpret the perceptual differences co-created at the being/environment interface, the fact that they are thermodynamically open physical structures signifies the balancing interplay between a constructive openness to environmental stimuli and autonomous rearrangements of one’s cognitive patterns as the key to sustainable living. In accordance with the postulated concept of the Way, evolution and learning occur in mutual, co-
creational interactions of beings and their environments. The following discussion attempts to provide arguments for the pursuit of a giant leap from the evidenced co-creational nature of qualities in the domains of primary perceptions, abstract reflections and linguistic patterns of social communication to general stages of the evolution of life.

Despite an obvious need for referring to balances between autonomous and environmental creative aspects in any biological explanation of cognitive phenomena, the contemporary descriptions of organisms amazingly fluctuate between the extreme standpoints of a complete dependence of the being's learning and evolution on environmental conditions and a complete inherent self-guidance with disregard of any environmental factors of influence. For example, in the fields of psychology and physiology, living beings are typically represented through conditional, behavioristic models according to which 'human behavior is the function of environmental variables alone'\(^{41}\). On the other side, an essential independence of the being's development on environmental factors would correspond to the contemporary paradigm of genetic determinism, according to which the genetic code presents the sole determinant of the being's phenotype.

Each of these two extreme standpoints comprises apparent flaws. In contrast to the idea of linear, unidirectional and hierarchical spreading of informations from the genetic code to the physical traits of an organism, a considerable amount of evidence can be provided in support of the circular exchange of information between all the cellular components. The simplest observation may be related to the fact that cellular DNA presents a template for the synthesis of polypeptide and RNA molecules, whereas the latter ones are engaged in the maintenance and replication of DNA sequences. Biological forms are not predetermined by the genetic code alone, but present emergent qualities of the whole epigenetic network of metabolic processes\(^{100,101}\). Genetic constitution of an organism presents only a 'chain' in the complex network of interactions pervaded with iterative, circular correspondences\(^{102}\), and as such may be regarded as the basis for ontogenetic and phylogenetic epigenesis of the
organism in terms of not strictly defining the pathways of epigenetic development, but providing conditions that determine the space of possibilities thereof. Phenotype is not the reflection of a partial expression of an inherent genotype, but a unique set of ever-changing qualities that is continually being re-created through an interplay between the inherent biological bases of one's development and environmental constraints and conditions\textsuperscript{103}. Investigating the characteristics of DNA sequences in isolation is for that reason not sufficient for providing the insights into always co-creational processes that outline the qualities of life, whereas shifts of the research emphasis to holistic epigenetic networks of processes and inner pathways of communication in correspondence with the environment have been presented as routes to improved comprehension of the origins and evolution of life.

Numerous discoveries from the fields of biochemistry and molecular biology, related to the mapping of the genetic code and the functional analyses of genome activity, have suggested that the key to understanding life cannot lie in genetic structure only or in any other single interactive side. Some of the results from the structural genome analyses include the facts that 98.5 % of human DNA is identical to that of chimpanzee, that 98 % is present in other vertebrates, that humans and bacteria share hundreds of identical genes, and that rice genome possesses twice more genes than human genome. The results of various functional analyses have shown that the initial developmental potential of cells can be recreated in specific oocyte environments\textsuperscript{104}, that mother's genotype becomes expressed as its offspring's phenotype (so-called 'maternal effect'), and that some genes are typical of exhibiting multiple functionalities (including the example of a gene that presents template for the synthesis of two antagonistically confronted hormones: one that stimulates appetite, and the other that suppresses it\textsuperscript{105}). Numerous other epigenetic phenomena, including RNA interference and 'gene silencing' phenomenon, hereditary nature of epigenetic DNA methylation pathways and the phenomenon of reprogramming thereof, the effects of paramutation and transvection, the effects of translocation of genes on their expression, the mechanisms of gene imprinting, and the depictions of ever more
significant roles of ever smaller DNA-related cellular components (e.g. transcription factors, chromosomal proteins including histones and their modifications, the role of microRNAs, silencing RNAs, etc.) in the expression of genotype, point to networked, iterative and holistic character of cellular processes. The propositions of multihierarchical networks of interactions as inherent to life have previously been supported by the exceptional regenerative abilities of embryos, as observed in Paul Weiss’ research on embryonic development and the early experiments where embryos depleted by a few cells or genetic sequences in the early stages of their growth developed normally. Equifinality manifested through the existence of numerous ways that lead to identical final states, has previously been indicated as the basic feature of non-linear and self-organizing living systems. The exceptional tolerance of mistakes in biological syntheses is overcome by high inherent selectivities of the final products, and may be described only through employing iterative, feedback-pronounced and self-correcting explanatory frameworks.

Instead of being a sole blueprint for all the emergent qualities of life, DNA may be regarded as evoking, but not defining ontogenesis of biological patterns of higher levels of complexity. The informational 'content' of DNA is not versatile enough to strictly specify all the neural patterns of the organism, so that only a redundant network of patterns (which enables 'unreliable' components to build 'reliable' outcomes, as can be evidenced by the inherent imperfection of all biological syntheses, and the fact that numerous 'wrong' transcriptions of nucleotides during DNA replication processes only later become recognized and corrected by certain DNA-correcting enzymes) that becomes activated and continuously re-created during life (as evidenced by an observation that the repeating mental tasks are each time performed via different neural pathways), may be DNA-specified. The fact that human beings possess $10^5$ times more synapses than receptors could support the idea that only differences and boundaries can be related to experiential qualities, so that the key to complexity of natural organizations consequently does not lie in the complexity of the individual components thereof, but in the complexity of patterns that they
compose and continually re-create\textsuperscript{93}, as has been one of the major assumptions of the autopoietic framework for describing biological phenomena. The effect of synaptic summation\textsuperscript{6} which corresponds to an arrangement of neural pathways so as to perform operations of logical conjunction, presents another evidence in favor of differences and comparisons as elementary features of experiential realities.

Despite the fact that one of the biggest 'truisms' of biochemistry and molecular biology is that 'structure defines function', it is nowadays becoming increasingly evident that knowing only the static structure of any biomolecule is insufficient for understanding and predicting its function\textsuperscript{111}. Qualitative essence and functionality of natural entities is from an ontological perspective determined by a complex interplay between their inherent properties and the overall context of their interactive existence. Due to holistic nature of such a network of relationships in relation with a corresponding environment, wherefrom all the inherent qualities of the system are being created, even though all individual relations might be hypothetically mapped, they might not be enough for understanding and predicting the evolution of biological systems in time.

On the other hand, the idea that living beings could be manipulated by means of external influences may also be discarded on the basis of the fact that living beings are self-organizing systems that subjectively construct meanings (in accordance with the inherent physical structure) out of the perceptual differences co-created at the being/environment interface. It has been known from the field of anthropology that environment does not determine, but only conditions the appearance of cultural traits of its beings and communities\textsuperscript{10}, whereas in the other direction, it may be claimed that individual actions could not present causes that may with absolute potential accuracy determine the features of the environment, but become incorporated in complex non-linear networks of interactions where seemingly gigantic amplitudes of influences may be aligned and diminished in the course of time, and seemingly mild and negligible actions may be spontaneously amplified until presenting significant and widely dispersed effects.
Similar as the shape of the already mentioned pebble is neither strictly determined solely by its inherent chemical composition and crystal symmetry nor merely by its physical surrounding, but has been continually formed in an interplay between the inherent potentials of the crystal growth and environmental circumstances, biological organizations present similar intersections of complex co-creational encounters of the influences of natural environment and the being’s inherent potentials.

The major conclusion that can be derived from such a niche is that ‘structural coupling’ presents a necessary precondition for living, perceiving, cognizing, learning and evolving. Structural coupling is in the autopoietic framework defined as the history of interactions that leads to a structural congruence between either two or more living beings or a being and its environment, as well as the process that leads to a coincidence between changes in states of the respective congruent systems. Interaction between a being and its physical surrounding is always mutual, so that any living environment could be considered not as a static, all-absorbing and inert object space, but as a sensitive systemic space that changes in accordance with the subtlest transformations within one’s cognitive domain. A crucial difference between robots that were designed so as to either passively adapt to a specific environment or insensitively perform the programmed tasks, and the living creatures that always co-modify and co-evolve in the co-creational interplay between the autonomous aspect of experiential construction and action management and the influence of also mutually changing environmental spurs (sources of stimuli), may be acknowledged from this point of view. Each evolution thus inherently presents a co-evolution. From this perspective, the co-creational nature of experience may be once again realized as a dance between minds and Nature, wherein beautiful harmonies between reflective imitation and unities on one and autonomous differences and individualities on the other side ought to present an ideal of the most fruitful interaction between the two. An all-encompassing importance of such a balance between unity and diversity, imitation and
originality, reflection and self-realization, and one and two, will be discussed in more details in the last section of this paper.

- As a consequence of the structural coupling, the history of interactions between a being and its environment becomes 'ingrained' in both the being's physical structure and its environment, so that investigation and analogous descriptions of such a history of interactions ought to present the basis for explaining origins and co-evolution of the beings and their environment. Ontogenesis of an organism may be seen as an epigenetic flow of structural changes in the course of a continual co-evolutionary modification of the being and its environment. Any momentary structure of the being may be seen as a reflection of the complete history of interactions between the being's epigenetic network and its natural environment, which is equivalent to the 'structural flow' of the realization of the being and Nature, and which presents the basis for the ontogenetic-phylogenetic correspondence between the dynamic structure of the being and its environment. Modifications of biological structures merely at the level of the genetic code (that are according to the classical, neo-Darwinian concept assumed to present the basis for an evolutionary advancement) may not be sufficient to instigate evolution in terms of phenotypic changes within the organism, whereas changes at the level of the whole epigenetic network in which genetic sequences figure only as components, may be indicated as the key ones for accomplishing constructive redirectioning of life and cognition on the evolutionary roads. Changes at the level of the relationship between mind and Nature (i.e. the beings and their environments) may present the initiations of constitutive genotypic modifications, so that the evolution of life can be seen neither as a unireational external design (corresponding to Neo-Lamarckian views according to which beings evolve by passively adapting to environmental constraints), nor as a unireational inherent development (corresponding to neo-Darwinian views according to which random genetic mutations initiate evolutionary advancements), but as an evolution of the 'way' that connects/separates mind and Nature. Relationships that wave between
worldly beings and relations that present 'hands', 'bridges' or 'sun-rays' that the beings spread, build and shine between their epistemological foundations and the hidden, ontological features of their environments, present both the drives and the targets of co-evolutionary development and spiritual growth that may take place in parallel.

Gregory Bateson described the processes of evolution as perfectly analogous to the processes of learning, despite the fact that he objected to any proposed links between the two levels of organizational complexity\textsuperscript{114}. Correspondingly, the shift from the ideas of unilateral effects of the external environments on their cognitive 'representations' (as corresponding to objectivistic attempts at explaining cognitive phenomena) to the proposed co-creational character of all aspects of experience may analogously correspond to the shift from a passive (i.e. 'objectivistic') adaptation of living creatures to environmental constraints to the idea of an active co-evolution of versatility and comprehensional potential of cognitive apparati on one co-creational side, and diversity of environmental boundaries and constraints on the other. Learning and evolution phenomena, therefore, do not proceed in linear directions, but arise from the co-creational interplay between the inherent self-organizing activity of beings and environmental constraints, and as such do not spread from either lower to higher complexity levels only (as in neo-Darwinian views) or \textit{vice versa} (as in neo-Lamarckian views), but present circular, multihierarchical and feedback-permeated harmonies of relations that spontaneously evolve into ever more organized states.

One more analogy between evolutionary processes in the domains of reason and biology may be realized by invoking Seymour Papert's cognitive principle which states that 'some of the most crucial steps in mental growth are based not simply on acquiring new skills, but on acquiring new administrative ways to use what one already knows'\textsuperscript{115}. This principle points to changes at the level of foundations of observing and comprehending experiential events as the key transitions in the evolution of both one's creative potentials and life. Evolution of life can, therefore, be regarded as proceeding along the line of
balance between the 'external' diversifying and complexifying the relationships of life and the 'internal' enlightening improvements of foundations of one's thinking and interpreting experiential patterns. Changes that continually change themselves, evolutions as evolutions of capacities for evolution, and similar higher-order evolutionary reflections may be regarded as inherent features of each directly observable and evident, first-order evolutionary process. Looking back, revising and improving the foundations of one's thinking thus presents the way for propelling one's being forward on the path of evolution, whereas creating ever finer criteria of selection, branching the spaces of possibilities and opening novel options can be identified as the ultimate aims and destinations in a never-ending story of diversifying and yet sustaining unity of the overall being and becoming.

A few words may also be said in favor of the 'forbidden' links that (dis)connect the levels of somatic learning and genetic evolution. For instance, Weismann barrier that prevents the acquired traits to be transferred to progenies, presents the central argument that supports neo-Darwinian theory of evolution. Whereas on one hand impermeability of this barrier ensures that degenerating modifications upon individuals (as through genetic engineering, for example) could not be transferred to progenies, numerous examples may support the fact that acquired characteristics can be inherited. In his theory of pangenesis, Charles Darwin thought that inheritance of acquired traits is possible, whereas the horizontal transfer of genes through the action of retroviruses, the discovery of numerous retrogenes (that comprise the majority of so-called 'pseudo-genes' or 'parasitic' genetic sequences), and Steele's hypothesis (which proposes that endogenic retroviruses are able to transfer specific genes through the activity of immune system from somatic to reproductive cells), present some of the indications of the semi-permeability of Weismann barrier, which may deliver the sign for a bidirectional balance between somatic and natural selection on the evolutionary path of life. The described phenomenon of epigenetic inheritance - according to which the fact that in addition to genetic sequences, the whole cellular contents become divided during fertilization,
implies that epigenetic networks of relations become inherited in addition to genetic sequences - presents an already mentioned evidence in favor of a partial phenotypic inheritance as well. A further evidence of the semi-permeability of Weismann barrier (in addition to 'trivial', natural selection guided effects, such as Baldwin effect \(^{118}\)) on one co-evolutionary side and of the divine character of 'natural selection' criteria on the other, would provide the support for bringing back the central focus of evolutionary studies to relations between beings and Nature.

However, in regard of the cybernetic thesis which states that the emergence of any novelty needs to be based on a source of randomness \(^{86}\), a stochastic character of the evolution of life and ideas cannot be neglected. Similar to the neo-Darwinian concept of evolution, creative mental processes comprise random 'shuffling' of concepts and ideas, guided by basic values, immediate intentions and long-term aspirations, and intersected by selection criteria. Acknowledging a stochastic character of conscious and evolutionary processes may present a starting point for uniting two classically confronted world-views: creationist, rigid, predetermined and fateful on one, and random, accidental, absurd and pointless on the other, and turn their flaws into complementary traits, resulting in an analogy of the co-creational concept of experiential organization at the level of learning of individual organisms and evolution of the biosphere. From the co-creational view at the evolution of life, the inherent neo-Darwinian sources of randomness, the neo-Lamarckian somatic-genetic correspondence, and the Creationist acknowledging of 'intelligent design' and divine character of ontological foundations of Nature as the co-evolutionary side that through the experiential co-creational 'communication' with Her beings guide them on the path of ethical, aesthetical and spiritual advancement, may be altogether assembled in form of another 'middle Way' concept.

*Conscience of the way*

‘To travel hopefully is a better thing than to arrive’
Robert Louis Stevenson, *El Dorado*

One of the main ethical and creative implications of the all-pervading symbolism of the Way is that the character of endless searching, questioning, wondering and widening the space of human inquiry corresponds to the attitude that promotes the evolution of knowledge and life.

The co-creational nature of experiences and its metaphysical and theological analogies according to which each detail of one's experiential world may be regarded as an evolutionary dialogue between mind and Nature, and spirit and God, respectively, provides implicit incentives for perceiving aims and destinations in the very 'here and now', and devoting one's intentions to the quest to 'see a world in a grain of sand and a heaven in a wild flower, hold infinity in the palm of your hand and eternity in an hour', as William Blake noticed. 'Conscience of the Way' as attentive and semi-meditative observation of subtle patterns in the substratum of one's experiential reality and imaginative, metaphorical constructing versatile analogous ideas and relationships on top of them, presents a complementary aspect of one's reason to strict and rigid rules of logical thinking. The most creative human inventions and problem-solving ideas have been throughout the history of human reason typically occurring in 'daydreaming' states that correspond to the boundaries between the 'shores' of wide-awake and 'stony' ordered logical patterns of reasoning and the 'seas' of dreamy intellectual wavering and intuitive 'flashes' of metaphorical analogies (all encompassed by clear values and bright intentions that correspond to a contextually guiding 'sky' and the sunrising horizons of one's inner aims and 'final causes' – and occasionally enriched by a child that builds castles in the sand as another metaphor of the balance between an infantile spontaneity and aspirational chastity on one side, and the innate tendencies to construct and create on the other - in some of the most inspiring metaphorical landscapes of mind reflections). Knowing that artistic 'writing is nothing more than a guided dream', as Jorge Luis Borges noticed, 'conscience of the Way' may present an originative complementarity to the visionary drawings of the landscapes of hope.
and 'final causes' on the abstract 'canvas' of one's mind. However, such a creative balance between one's meditative immersion into 'here and now', and a cultivation of precise and ordered abstract reflections poses inherent risks of falling to the unbalanced extremities that correspond to 'blindness' to numerous essential experiential signs on the path of one's development, in one case due to a meditative lunacy and disregarding 'the trees from the forest', whereas in the other case due to one's preoccupiedness with 'eagle-eyed' focusing activities with tendencies to ever more improve the resolution of one's superficial detection of experiential patterns, although without the holistic ability to assemble them into the signs of deeper meanings, and divine co-creational messages and evolutionary directives.

The highest summits of implicit ethics that the expressional and behavioral analogy of the concept of the Way points to is neither sole implicit pointing to the very pointing, typical of constructivist ideals\(^{63,64}\) (drawn from existentialist influences), nor mere implicit pointing to the significance of 'objective' and 'universal' world around (whereby neglecting the subjective co-creational factors in the rise of experiences), but mutual and interdependent pointing to one and the other, i.e. to the way that co-creatively spreads between the features of the 'hidden reality' and implicit values and aspirations that belong to one's epistemological foundations, and that may enlighten one's expressions with a hidden 'teaching' influence analogous to the one implicitly emanating from the divine, ontological co-creational side. Spiritually realized living may therefore be visualized as the path that points to the beauty of seeking and an endless quest for the 'sunrising' horizons of knowledge. Dreaming of wonderful landscapes and expressions, waiting for the presents of life to be opened, and air-drawn carrying of unopened letters of the loved ones on one's chest, present on one hand the crucial points of living, whereas on the other hand, their existence is conditioned by the moments that belong to discoveries, factualizations and revelations after which one may again raise the sails for novel quests on the sea of knowledge and being. Accordingly, living beings may be defined as autopoietic systems - i.e. self-organizing systems whose purpose is self-organization\(^{119}\) – and
the circular arrangement of inherent relations in a single organism consequently prevents distinctions between causes and effects, as well as between creating entities, created entities and the process of creation. The living system as a whole is a result of the local operation of its component molecules, not the realization of a plan… There is nothing in a molecular system that could be properly thought as an organizing or guiding principle, as Humberto Maturana observed. However, as linguistic constructions and all descriptive patterns necessarily produce dichotomies and polarities, any attempt to draw a perfectly consistent and complete description of such an ultimate organization of life processes will end up in facing particular harmonies between logical consistencies and paradoxes, and realizing inherent inadequacies as much as acknowledging pragmatically usefulness of the applied explanatory models. For, 'we lose the substrate at the moment when we try to place it into language, to describe it,' as Humberto Maturana continued. A dancer from the dance, entities from the processes, and qualities from the relational contexts that define them could not be objectively separated. Similar to this, a writer in its devotion to bring enlightening ideas to the social daylight and fulfill his creative aspirations lets his whole being pulsate with the composing words and ideas, so that the 'writer' and the 'written' become 'writing' each other, and one does not know any more whether it is the writer writing the book or it is the book writing the writer.

Introducing spontaneous elements at the level of contemporary social meetings guided by overconceived plans and agendas may restore the communicational balance in favor of the one comprised of both the aspect of periodicity and predictability, and the aspect that draws on communication as the ultimate purpose of communication. Such a balance may increase the potential of communicational bearing of novel and creative synthetic standpoints, unexpected ideas, perspectives and conclusions, and may further edify the actual competitive and 'racing' character of the modern 'developed' societies in the sense of enriching it with the 'flavor' of imaginative, intuitive and unconditional friendly nature inherent to human creativity. Whereas the lack of aesthetic richness of overconceived expressions becomes apparent in the form of diminished ability to
inspire others (and the most beautiful smiles never know of their reasons), the lack of their ethical character is noticeable in form of disregarding the feedback-permeated sensitivity to environmental responses to the subject's subtle acts and signs. Creative acts that succeed in achieving the background harmony between intelligent, conceptual rigor and flexible, spontaneous exertion are normally favored as pointers to both the inherent drives of creativity in form of imaginative inquiry, beautifying inspiration, wonderful reasoning and surprising character thereof (essential for magnificent scientific and philosophical achievements), and the balance between spontaneous, empathic and trustful imitation and self-realizing and self-responsible originality as the relational key to creative learning. Whereas the integrity of organizations whose members and segments are connected by emphasizing the significance of merely satisfying the proposed goals becomes seriously threatened in situations marked with deviations from the desired outcomes, organizations pervaded by the harmonies between emphasizing 'destinations' and 'journeys' become sustained on the ground of spontaneously cultivated unconditional respect and altruism, and as such are able to surmount significant instabilities and crises in their relationships with the environment. Also, whereas the aims of organizations pervaded by 'shallow' implicit ethics may be related to mere self-survival, the ideals of 'deeply' ethical organizations might be referring to evolutionary aspects of the members' inner development and pointing to the sources of enjoyment and meaning in the very journeys. Co-evolution of cognitive members of the contemporary social organizations – nowadays typically shifted away from the balance towards the side of utilitarianistic individuality and competitiveness versus the side that corresponds to acknowledgment of common interests and cooperativity – may be actually favored with the increased valuing of relationships based on unconditional respect, mutual acceptance and trust, sincerity and clemency on the account of nowadays dominating relationships based on manipulative tendencies and egocentric disparity, so that the competition/cooperation balance may be restored to its co-evolutionary most productive fluctuations around the 'equilibrium' points.
The cultural shift from valuing work processes and journeys to valuing work products and destinations has induced various modern forms of dissatisfaction and people's 'slavery' to the products of their work, instead of *vice versa*. The values related to the power of control, domination and presidency have frequently tamed the innate senses of wonder, humble epistemological settings (corresponding to the cognitive 'seas' that are 'below' all the observed beings and experiential patterns, and yet all the 'rivers' of experience are flowing in their direction), and sacred aspirations to explore the fundamental existential relationships that support the questions of meaning, purpose and evolution of cognition and life, and consequently sustain all the apparent 'towers' of knowledge and other pragmatic edifices of humanity. However, the silent exclusion of ethical responsibilities from the domain of scientific methodology by referring to the objective character of the 'programme' of science and its progress, may result in an alienation of the pragmatic programme of science from its metaphysical roots (that belong to benevolent tendencies to coordinate human experiences in mutually constructive ways), and its metamorphosis from a 'faithful servant' to a 'bad master', as was depicted in the Stanley Kubrick’s movie '2001: A Space Odyssey'. Forgetting that all human professions and areas of science rest on meta-professional and meta-scientific foundations that partly correspond to empathic tendencies towards successful intersubjective coordination of experiences lies at the core of the paradoxical contemporary deteriorations of the implicit intentions and long-term effects of human professional activities, and that frequently in the direction of complete opposites from their basic assumed character.

The goals of human creative efforts are from this, co-creational perspective as important as the quality of performance, that is, the way that leads to their attainment. To recall the words of St. Teresa of Avila, 'I will conclude with this advice: do not build towers without a foundation, for our Lord does not care so much for the importance of our works as for the love with which they are done'\(^ {125} \). The ethics exposed in the book 'Tao-te-ching', and the one emanating from the teaching of Buddhist and Hinduistic tradition (including, most notably,
the imagery of Bhagavad-Gita) emphasize the meditative experience of spiritual aims within each moment of existence, devotion to the quality of performance and maintaining attention upon the implicit ethics that supports and outlines the spectrum of the finest qualities of all of one's expressions, irrespective of their immediate significance, superficial purpose and literal meanings. The idea that 'the aims justify the means' has induced numerous tragic events throughout the history of human race, and an important lesson that can be learned thereupon is that instead of being blinded by the results of one's actions and creative efforts, one should attempt to awaken the conscience of an enormous significance and purpose immanent in the very act of performance. In that sense, the fact that all great human deeds have arisen from neither the bases of an innate talent nor inert, programmic reasoning, but through 'shining' aspirations to gratify and enlighten others by one's marvelous and enduring work, presents one more reason that explains why simultaneous pointing to the very pointing and pointing to beauty, divine significance and pathways to one's self-realization in the 'eyes of the others' – and as such equates with the pointing to relations between the hidden epistemological foundations of the subject's being (as one co-creational side of the continual 'drawing' of experiential details) and the hidden, ontological foundations of Nature (as the other co-creational side) - may present the ideal of communication in accordance with the concept of the Way. Because from the co-creational perspective one is aware that every detail of one's experiential world becomes partly subjectively constructed and as such hides the essence of the subject's being in terms of the epistemological pedestals from which the process of its co-creation springs, that fact that peaceful and lovely observations and blessings of the beings of the world become reflected on clarity and brightness of one's epistemological foundations and vice versa, becomes clear and reasonable.

However, as in the case of revealing the significance of linear/non-linear balance, here we can also recall that no path could exist without hypothesized and at least visioned starting and final destinations. Human beings can be represented as cybernetic, purpose-driven systems, for the majority of our conscious actions are driven by the ideals of attainment of certain goals.
However, throughout the evolution of life we may witness the refinement of these aims from the ones related to the satisfaction of the basic existential needs to ever finer ones, so that each experiential observation of 'here and now' may be seeded with endless 'starry' aims that are being reflected from the co-creational assumption which states that every minor detail of one's experiential world emanates from the dialogue between mind and Nature, and as such presents the potential source of immense messages, precious directives and the Biblical 'signs of the times'. Eventually, according to Heinz von Foerster's ethical and educational imperative which states that one should 'act always so as to increase the number of options', diversifying the space of possibilities, the degrees of freedom (although subtle constraints and meaningful degrees of freedom are necessarily developed in parallel, so that order and freedom may be seen as opposite sides of an evolutionary 'coin' of life and cognition) and the multitude of cognitive perspectives and behavioral patterns is regarded as the ultimate goal of systemic educational approaches. However, every fruitful educational approach comprises inner drawings of the visions of final destinations and outcomes of one's work, enwrapped in the light threads of hope and faith, so that once again, the balance between ways and aims may be regarded as one of the crucial analogous reflections of the co-creational concept of experiential organization.

The boundaries between visions, hallucinations and experiential 'reality' cannot be strictly drawn from the autopoietic perspective, for they all become overlappingly constructed upon the cognitive 'canvas' of one's being. 'Destinations' derived from abstract reflections and 'paths' as immanent in the co-creation of primary perceptions present, therefore, inseparable aspects of one's experience, which the metaphor of the Way may have already suggested. The subject's epistemological foundations have in the previous sections been presented as partly comprising the inner desires and aspirations as, so to say, 'final causes' that correspondingly guide one's actions and the co-creational construction and interpretation of perceptual wholes. Because of this, we partly 'see what we believe in', and even more importantly, 'we become what we see'.
'Let there be vision: and there was light"\textsuperscript{126}, was thus Heinz von Foerster's thought that pointed to the co-creational assumption according to which Nature responds with 'light of the world' to all the subject's sincere and benevolent visions and tendencies. Together with the complementary Biblical stance according to which 'the Creator announced: 'Let there be light: and there was human vision", these two propositions present a perfect pair of imperatives that can support the blossoming of numerous ethico-aesthetical consequences of the proposed co-creational organization of experience, wherein mind and Nature act simultaneously imitatively following and originally responding to each other's movements in the mutual dance of evolution of being and life.

Whereas the idea of existence as equivalent to an active perceptual co-creation of qualities can be formulated by saying that 'in order to be, one must see', Humberto Maturana has offered a complementary idea in favor of instigating the spontaneous aspect of creativity by saying that 'in order to see, one must let it be''\textsuperscript{119}. However, letting the conscience of spontaneous, unreflective reasoning character - expressed by John Lennon's neo-Buddhistic ideal of 'be here now' - become predominant in human cognitive spheres, we may find ourselves one day asking each other the famous question of Jonathan Livingston Seagull: 'Overcome space, and all we have left is Here. Overcome time, and all we have left is Now. And in the middle of Here and Now, don't you think that we might see each other once or twice''\textsuperscript{127}. Such an air-drawn attitude and an overpronounced recklessness - frequently related to the artistic attitude of favoring fanciness on the account of disregarding the importance of conceptual rigor and intellectual pedantry - would provide as many disharmonious consequences to the reflective nature of humanity as the overemphasized striving for aims, results and prizes that we currently witness in today's societies. Self-awareness which is often criticized by the proponents of leisureful aesthetics and purely spontaneous expressions, can be seen not only as the vehicle for abstract reasoning, advancement of science and informational enrichment of the experiential realities, but as a 'gift of the biology of love''\textsuperscript{103,128} as well. For, many of the sensual attributes of cognitive reflections, such as the senses of
cautiousness, prudence, vigilance, circumspection and other self-conscious traits, become transmitted from mother to child during their mutual playing and 'co-creating' of each other's experiential worlds. Also, none of the ideas developed by individual beings as steps on the evolutionary streaming of humanity towards informationally/cognitively and spiritually richer states would have been developed if there were no resolved reflective attempts to overcome thermodynamic barriers as obstacles on the way to negentropically enriched states by means of strenuous abstract reasoning activities. It is the precise balance between valuing spontaneity and meditativeness of 'being here and now' on one side, and the cultivation of mindful efforts related to purposeful reflections guided by imagined 'final causes' on the other, that the concept of the Way calls for as the key to evolution and inner happiness of human beings. For, only through fixing a pair of nodes on a string instrument one can give rise to a wavy activity pattern of the 'way' between them and thus to lovely music that spreads the inherent qualities of the instrument towards its environment; similarly, only by fixing at least two 'aims' in terms of fixed perspectives, ideas, visions, ideals or explanatory entities - such as mind and Nature in the concept of the Way proposed herein - is that a potential for the rise of the music of narratives in form of artistic stories, scientific models or the religious supply of ethico-aesthetical directives, and spreading of the inner essences of one's being towards the 'hidden reality' of its environment, can be established.

Th aethetics of tracing the Middle Ways

Tai-chi-tu diagram

Another consequence of the fact that each perceptual event and each reflective description are conditioned by and result in the co-creative formation of qualitative boundaries that divide specific uniformities to polarities, is the idea that reasonable explanations of experiential phenomena and problem-solving
pathways ought to be based not on accentuating the propagation of only one of the 'confronted' interactive sides, but on emphasizing harmonies in their contrasting relationships and the dynamic balances in their alternate, fluctuating emanations. Nevertheless, the contemporary management attitudes within various professional fields seem to be, in general, more concerned with maximizations than with optimizations, despite the fact that biological and ecological systems can provide numerous examples from which a conclusion that only optimizational streaming and dynamic balancing can lead to long-term prosperity and sustainable development may be derived. Numerous context-independent variables - ranging from economic profits to sold records to calories and journal impact factors – used to define quality management guidelines within diverse social domains present evidence that the popular culture is permeated not by optimization and balancing ideals, but by the ones of maximization and unlimited growth.

The discourse presented herein at its core comprises an attempt to juxtapose and conjoin two separate 'rails' of the actual philosophical tradition - constructivist, idealistic and solipsistic on one side, and objective, universal and realistic on the other - into a single 'railway track' that may guide the 'trains' of one's thoughts to novel and uncharted cognitive landscapes. We have shown that reflecting on experiential qualities as emanating from only one of their co-creational sides (either idealistic or realistic) results in ignorant and disharmonious attitudes in relation to a wide array of ethical qualities. Parts of a cognitive landscape that are covered by 'curtains' of such ignorant attitudes may be illuminated by invoking a genuine awareness in contemplation of experiential wonders on an epistemological pedestal marked with a belief that all details of one's experiential world are being continually co-created in the communication between one's inner cognitive and existential cores on one side, and divine ontological foundations of Nature on the other.

Each way possesses two simultaneously separated and connected sides, and not mutual exclusions, but their balancing presents the ultimate ethical approach to one's interference with them. The following examples related to the
nature of experiential realities and ethical ideals, unable to fit the current content of this work, may be only mentioned in order to illustrate the diversity of 'middle Ways' in the organization of experiential worlds.

- All natural/experiential systems are pervaded by the balance between order and freedom, rigor and flexibility, periodicities and novelties, stabilities and inconstancies, sustainability and evolution, predictabilities and uncertainties, information and noise. For only their interplay and mutual feeding, as depicted in the ancient Tai-chi-tu diagram, can result in the system's continual development and evolution. Homeostatic nature and adaptive flexibility have been shown to be maximized in neural networks set at the order/chaos boundary, so that the system states that correspond to the points of balance between order and freedom may be regarded as attractors of the evolutionary dynamics of neural networks\textsuperscript{129}, and \textit{vice versa}. The balance between a 'conformistic' adaptivity to environmental and social norms on one side, and evolutionary improvements of the era's dominant doctrines on the other, typifies all harmonically developing cognitive creativity efforts.

- Similar to a guitar string that needs to be both rigid and flexible to produce musical tones, firm and tensed integrity on one side, and relaxing, wavy freedom on the other in their dynamic interplay produce music of natural, co-created experiential qualities at all complexity scales. Simultaneous firm willingness and faithful drawing on self-specified premises of reasoning on one, and the readiness for their flexible revisions and improving modifications on the other side thus presents the attribute of a true and balanced intellectual development. The balance between stabilizing and strengthening effects of centralization, implementation of learned techniques and 'confirmed' methodologies, and the reinforcement of reoccurring situations and repeating experiential patterns on one side, and the stimulation of decentralizational flexibility, chaotic fluctuations, improvisations and adventurous quests for novelties on the other, may be found in all sustainable and healthy developing natural organizations.
• Harmonious social development depends on the balance between the 'top-down' influences of regulations and constraints imposed by the centralized authorities, and the 'bottom-up', 'grass-root' spreading of values and behavioral patterns that co-shape one's attitudes towards life at the cognitive 'roots' (as 'home' to cognitive relations that stretch from there on towards the being's environment in form of ethico-aesthetical qualities). Similarly, the future prosperity for the field of chemical engineering and nanotechnologies might be conditioned by R&D success in combining manipulative, hard-tech, 'top-down' processing methodologies with self-assembly, soft-tech, 'bottom-up' synthetic pathways\textsuperscript{38,130}. This may bring scientific design efforts back to Francis Bacon's ideal that 'Nature to be commanded must be obeyed'\textsuperscript{131}, which points to an acknowledgment of the co-creative interplay between the subject's imagined 'blueprints' and uncertain, 'self-assembly' effects of Nature in any design process, in a way that corresponds to an artistic balancing of learned techniques, visioned outcomes and cultivated aspirations with the dose of meditativeness and spontaneity, and which as a result produces outcomes that could not be identical and may be even more inspiring ("with the help of Nature") compared to the artist's primary visions. Imperfections may be, therefore, considered as inherent aspects of any 'perfect' creation. Similar as a successful traveling on a sailboat depends on a precise interplay between the application of one's yachting skills and reliance on convenient weather patterns and the sea currents, all human achievements are based on the co-creational interplay between one's inner sources of creativity and the 'guiding' patterns of Nature. Life harmony as achieved and maintained through an active balance between upward and downward extending 'forces' can be found in numerous civilizational traditions of knowledge, ranging from the philosophies of Heraclitus and Hermes Trismegistus to the Christian symbol of cross, Persian stories and Egyptian symbol \textit{ka}, Hinduistic mythological parables and the principles of Hatha Yoga, alchemist '\textit{solve et coagula}' principle, and Simone Weil's concept of 'gravity and grace'. The demarcational character of informations, the co-creational nature of
experiential qualities and holistic nature of experiential/natural systems - according to which predictions of behavior thereof require their description in terms of an interplay between lower (i.e. constituent) and higher (i.e. constituting) interactional complexity levels – may present neat physical reflections of such traditional metaphors of intersectional and/or 'mirroring' encounters that pervade all aspects of one's experiential reality.

- All creative patterns of reasoning are typified by the harmony between 'knitting' rational and logical threads and making imaginative, intuitive and metaphorical 'leaps' between logical levels of reasoning. Unities of logical precision and artistic inspiration, partly designed and partly spontaneous character are following the steps of all truly creative cognitive 'wanders'. Inseparable inherent aspects of 'wisdom' and 'beauty' pervade all wonderful expressions (as the original meaning of the Greek word for 'philosophy' might have already suggested), as much as 'ethics and aesthetics are one and the same', as Ludwig Wittgenstein noticed. The ideas that comprise this work have also been formed by stretching one hand towards the estate of science and philosophies on one side, and of arts and religion on the other, and finding the 'middle ground' that adopts an evolutionary optimism of the contemporary scientific attitudes and an ethico-aesthetical wisdom of the ancient thread of religious traditions of the human civilization into a single conceptual whole, and in that provides the pathways for enriching scientifi-co-atheistic world-views with the acknowledgment of an inherent evolutionary intelligence (that through the proposed concept of co-creation of experiential qualities links ontological and epistemological foundations of existence), and provides comprehensional 'leaps' that may help in transforming literal understanding of religious stories to an open acknowledgment of their metaphorical meanings, applied in form of ethical directives in one's spiritual/cognitive evolution.

- Although a well-balanced interdependence between theoretical/conceptual and experimental capabilities and efforts presents important complementarity for scientific, technological, informational and spiritual advancement of
human societies, a more profound dichotomy in the world of science could correspond to the division between 'know-how' and 'know-why' potentials within the individual cognitive schemes, whereas the former types would be mostly preoccupied with developing the fruits of the actual paradigms of knowledge, the latter types would be more interested in revisiting, revising and questioning the foundations of knowledge. Despite this, every type of knowledge comprises the respective balance wherein 'know-how' knowledge corresponds to programmic skills and 'ingrained', inherent and spontaneous patterns of behavior, and 'know-why' knowledge relates to flexible revisions of the given programmes of reasoning and action, with the purpose of improving the further flows in their pragmatic application. Continual improvements at the level of 'focusing' attentiveness and instrumental, measurement resolution skills on one side, and investigation of the contextual character of the observed features on the other, may be related to a well-balanced and healthy management of the scientific progress. The ancient Greek social gap between thinkers and workers – reflected on dichotomies between 'seeing' and 'acting', philosophizing and working, contemplating and performing - may be neatly bridged by perceiving an inseparable character of the two within all truly effective professional commitments (hence the actual popularity of 'reading' among hard workers and 'recreating' among scientists). For, whereas it is obvious that in order to act successfully one must first learn 'to see' (i.e. to conceive actions and foresee the effects), Heinz von Foerster's aesthetical imperative may remind us that 'if you desire to see, learn how to act'\textsuperscript{5} (and according to the 'weak' interpretation of Heisenberg's uncertainty principle\textsuperscript{132}, 'giving' necessarily precedes 'seeing' in any measurement procedure), and correspondingly, the dichotomy between speculative and practical human character may be transformed into a well-balanced whole, as the biological unison of 'functionally specialized' cerebral hemispheres into a complementarily lateralized structure of the brain may have already indicated.

- The harmony between analytic skills, informational diversification, specialization scrutiny and pragmatic reductionism on one side, and
synthetic skills, unifying contemplations, systemic knowledge and holistic 'eye' on the other, presents another balance that typifies well-conducted progress in knowledge. When asked by one of his disciples whether it is true that he knows a lot of things, Confucius replied: 'Oh no, all that I know is like one tiny thread. But it relates to (i.e. connects) all the others'. Generally applicable systemic knowledge is similar to such a Confucian 'thread' which pervades all natural/experiential relationships, and which presents an essential complementarity to analytic skills solely 'glorified' in the domain of contemporary scientific education. The balance between performing various $I \rightarrow Y$ transformations in the course of diversifying experiential optional spaces and branching the scientific 'tree of knowledge' on one side, and devotion to the search for common 'roots' that, so to say, perform $Y \rightarrow \forall$ transformations (whereby the latter sign is the first letter of the oldest known alphabet), and unify an apparent verisimilitude of experiential aspects and realities into meaningful wholes on the other, may bring us to an essential complementarity between scientific and religious studies after revising the already mentioned original meanings of Indo-European 'skei' and Latin 'religare' (being the original roots of the words 'science' and 'religion', respectively), corresponding to the art of differing and discerning, and the art of connecting and unifying, respectively. However, in order to avoid the tendencies to attain static and ultimate balances of this kind through invoking too rigid, 'Esperanto-like' unifying threads that instead of instigating, come to constrain further diversifications of individual perspectives, the 'Confucian' threads need to be light and unobtrusive, so as to foster a continual 'drawing' of informational differences at the level of individual perspectives. Similar to a thread that ties other threads into a strong rope, unifying relations need to be drawn at novel spatial and functional domains, not interfering with the 'modeled' relationships and perspectives at the same levels of complexity, but providing contextual 'guiding lights' from higher-orders of investigation. The dynamic character of the balance between diversity and wholeness implies that aspirations to evolve into final answers, ultimate theories and conclusions
of the story of human wondering evolution ought to cede their place to the knowledge that the evolution of human knowledge and being may be depicted as 'knitting' of the wonderful 'embroidery' of human knowledge, which proceeds through complementary acts of differing and creating novel 'threads' as experiential relations on one side, and always new 'wisping' of 'wisps', 'wisping' of the 'wisping' of 'wisps'...on the other.

- Symmetrical perfections and asymmetrical imperfections are balanced in all natural creation pathways, as is depicted in a Zen story where the Zen master after visiting a too perfectly arranged garden, throws a can of leaves over it and says: 'Now it is perfect'. Only one side of any hypothetic interaction or balance presents a non-existent and unsustainable path, respectively, for we all know that there is no answer to the famous Zen koan: 'What is the sound of one-hand-clapping?'

The mutual ‘mirroring’ of natural and experiential polarities is of dynamic character, as depicted by the confluent character of the opposing sides in Tai-chi-tu diagram. Similar as the flow of a day leads into a night and vice versa, cognitive diversity of ‘daydreaming’ results in an empty-minded sleep and vice versa, amplitude of a sea tide signifies the beginning of an ebb and vice versa, inhaling activity brings about exhalin one and vice versa, ‘artistic’ impressions imply aesthetic expressions and vice versa, natural tensions and relaxations are alternately shifting at any particular point of any system’s harmonious development in time, and all the balances mentioned above are maintained and evolve not through their static equilibriums, but through the propagation of dynamic, fluctuating and mutually supporting interactions. For example, social relationships that ‘oscillate’ with producing the senses of empathy and carefulness naturally lead to individual insights into the crucial aspects of philosophical and intellectual reasoning, whereas the development of speculative reason naturally leads to acknowledging the biological nature of cognition and the pragmatically, co-orientational character of scientific and other abstract concepts, illuminating their foundations composed of the patterns of love, care
and benevolence. Also, if one wants to deepen and develop the extent and richness of his ethical relations with the environment, one should devote his attention to the co-creation (= discovery + invention) of experiential outlines in ‘the shades of eternal beauty’, whereas strengthening moral attitudes at one’s epistemological bases through providing an unconditional respect towards beings and details of one’s experiential world may lead to a natural emergence of the outlines of invisible, ‘eternal beauty’ that pervades all the details of one’s experience.

‘If you want to understand mental process, look at biological evolution and conversely if you want to understand biological evolution, go look at mental process’6, was Gregory Bateson’s message, consistent with his views at analogies and narratives as the keys to creative human reasoning. Another previously proposed idea was that in order to improve the understanding of reality, one should be devoted to scrutiny of the cognitive foundations of his being, whereas in order to learn more of his essential qualities and values as ‘invisible guides’ of the co-creational construction of one’s experiences, one should be devoted to scrutiny of the patterns of the ‘outer world’. In a narrower sense of the concept, knowing the roots of one’s reasoning requires learning about the roots of one’s education, social tradition and communicational features of the environment, and vice versa. As a training in ‘superficial’ swimming is required to learn the art of ‘deep’ diving for pearls, in order to become a fruitful researcher in a special scientific field of interest, one ought to value the importance of drawing ever wider contexts (through learning of novel perspectives and observing the same ‘programs’ of interest with ‘new eyes’) in which the areas and details of the particular research find their place, guidance and meaning, whereas one ought to know that each individual research or a topical area of science may be represented as a bottom brick of a pyramid, so that a detailed investigation of the given problematics presents steps that lead to its top which comprises invaluable cognitive, philosophical and ethico-aesthetical insights. Metaphors co-created through elaborate feedback correlations between experimental/observational settings and a theoretical/abstract modeling carry the potential of infinite ways of
their analogous interpretation, and as such may be regarded as pointers to the
deepest philosophical and ethical secrets of being. In other words, scrutinizing
and developing particular perspectives of experiencing and schematizing the
patterns of experiential reality results in a familiar acceptance and understanding
of diverse other world-views, research paradigms and cognitive foundations,
whereas tolerant, welcoming and all-embracing attitudes in encounters with
novelties and changes become invigorated through one's insights into reflections
of 'secret' epistemological foundations of his being. Heinz von Foerster observed
that 'if one wants to find himself, let him change' in encounters with diverse
cognitive perspectives, whereas the cognitive sensitivity to subtle changes, fluxes
and differences of one’s co-created experience becomes reinforced through
cultivating meditative peacefulness and purity. And finally, Jesus Christ taught
that 'he that findeth his life shall lose it: and he that loseth his life for my sake
shall find it... And whosoever shall exalt himself shall be abased; and he that
shall humble himself shall be exalted' (Matthew 10:39...23:12), pointing to the
idea that egotistic self-gratifications lead to the loss of integrity and satisfaction in
one's cognitive and experiential becoming, whereas a devotion to other beings
and Nature itself leads to one's becoming wholly integrated and exhibiting a self-
satisfied physical and cognitive harmony of 'glowing' relations.

Therefore, instead of propagating the ideals of permanent and static
balances, one should be aware that the 'balance of the Way' corresponds to the
dynamic character thereof in terms of alternate exposition of confronting
polarities. Evolution of such polar interactions in the direction of continual
informational enrichment and diversification of these dynamic relationships is
possible only in conditions that correspond not to their annihilating character,
but to a mutual potentiation of each other’s alternate emanations. In this sense,
we may be reminded of a tightrope walker’s walk as of a perfect analogy of the
dynamic and mutually potentiating character of the confrontations of natural
polarities in the course of their informational and spiritual evolution. Namely, a
tightrope walker proceeds along the line whilst alternately falling towards the
opposite sides. Static balance would be equal to a sterile equilibrium, whereas
only alternate ‘falling’ towards points out of balance can provide him with the potential of advancing forward. Similarly, it is only through one’s excursions from perfectly balanced states that enriched cognitive and evolutionary states can be reached. Through such temporary disharmonic deviations, one simultaneously opens the views towards devastating ‘abysses’ (that may correspond to one’s ‘fall’ into permanent disharmonies) and steps towards the attainment of his evolutionary visions, so that every ‘opportunity’ carries immanent ‘risks’, and *vice versa*. This is also why each evolutionary, truly progressing ‘walk’ in any creative domain during its attempts to continually alternately harmonize the disharmonies and *vice versa*, resembles the insecurities of a tightrope walker in its act, so that utilizing the practice of being secure in one’s insecurities and *vice versa*, being strong via one’s cognitive flexibility and *vice versa*, being wise in spontaneous living and *vice versa*, all on the epistemological bases enlightened by one’s ethical qualities, visions of hope, and strong and yet flexible will, presents the way to co-create healthy cognitive stances that may spontaneously promote evolutionary ‘walks’ on the relations that connect the being with its environment. Balance between balance and imbalance presents, therefore, the ultimate balance of the profound co-creative guidance of our experiential realities in the stepping of humanity towards novel, evolutionary ‘sunrising’ horizons.

*The Way of Love*

‘She saw every relationship as a pair of intersecting circles. It would seem at first glance that the more they overlapped the better the relationship; but this is not so. Beyond a certain point the law of diminishing returns sets in, and there are not enough private resources left on either side to enrich the life that is shared. Probably perfection is reached when the area of the two outer crescents, added together, is exactly equal to that of the leaf-shaped piece in the middle. On paper there must be some neat mathematical formula for arriving at this; in life, none’

Jan Struther, *Mrs. Miniver’s problem*

Simultaneous connectedness and separateness, unity and disparity, being One and yet being two in the subject’s relations with other beings of the world is what
the metaphor of the Way symbolizes at the level of social relationships. It may present a wonderful inspiration in the attempt to outline the 'Way of Love' as an ultimate and yet the most elementary foundation for building social relationships permeated with the senses of love, care and benevolence, which can be from the co-creational perspective regarded as the beginnings, drives and the ends in the corresponding representations of the purpose, meaning and evolutionary steps of being and life.

Similar as the Sun procreates life through the balance between the 'inner' burning of its essence and 'giving' the results unconditionally to others, human actions and comprehensions of experience need to be guided by the corresponding ideal of balance between an inwardly-oriented meditativeness and cultivating an introvert 'glow' of one's sacred aspirations on one side, and living for others and dedicating all of one's products of work and contemplation to well-being and happiness of beings of the world on the other side. The image of crucified Christ as one of the oldest Christian symbols depicts a similar intersection of the meditative immersion into the 'heart and soul' of one's self and stretching the 'bliss-bestowing hands' towards the world. The 'lonely' imaginative co-creation of 'shining' sources of the sense of self-responsibility and of wonderful relations that one may send to its environment becomes intertwined with passionate aspirations to deliver one's 'inner treasures' to the world, knowing that 'blessed are the poor in the spirit: for theirs is the kingdom of heaven' (Matthew 5:3). Two essential Christian commandments (Mark 12:29-31) may, in fact, be considered as two 'normative nodes' that establish a firm basis for attaching the strings of the 'Way of Love'. Through incessant stretching to reach novel impressing perspectives and expression pathways, the 'strings' may subtly oscillate as kept between the two hard rock foundations of the basic Christian norms, so that a wonderful music of spirit is being produced and sent to vibrate throughout the natural breadths. This pair of normative 'nodes' presents a basis for achieving the balance through which wholeheartedness and devotion to others potentiate one's patterns of inner creativity, and vice versa. Whereas leaning firmly only to the first norm related to one's devotion to finding
his own way and neglecting the significance of self-realization of other beings 
may result in one's intolerable loneliness and mental isolation to one's own 
'planets' of life experiences - as in the tale about the Little Prince\textsuperscript{36} – a sole 
surrender to the needs of the others (corresponding to holding on to the second 

norm only) with disregard of the need to meditatively follow one's own nature 
and 'inner voice' may lead to a creative desertification of one's domains of 
cognitive creativity, as can be noticed in case of many atheistic, moralistic and 
even Christian (Romans 13:9) teachings. It is only the balance that the Way of 
Love epitomizes that may provide one with the Little Prince's aptitude to 
inquiriously leap from one 'planet' to another, trustfully and openheartedly 
modifying the perspectives of observing the world of human experiences, 
although with a careful preservation of its own mission, journey coordinates and 
a heartily devotion to the 'rose' from his own 'planet'. With such an attitude, one 
can live out the words that Moses proclaimed when he descended from Mount 
Sinai: 'I stood between the Lord and you at that time, to shew you the work of 
the Lord' (Deuteronomy 5:5), promoting the idea that when being 'crucified' 
between the pair of essential Christian norms, one spontaneously becomes an 
instrument for expressing the music of heavenly prophecy and love. 

Through the cultivation of a cognitive attitude depicted as the Way of 
Love, any living instance may become a sacred encounter with the divine 
foundations and creatures of Nature. As Martin Buber noticed: 'When I say: 'He 
believes', I mean 'He encounters"\textsuperscript{7}. By neither forgetting about the reliance on 
inner foundations composed of one's deepest values and aspirations, nor 
overlooking the importance of endowing others with empathy and \textit{agape}, a being 
may set itself into holy relationships, which can be picturesquely represented as 
bridges that are supported by strong, Biblical foundations in form of deep ethics 
and sacred intentions, and benevolently provide the paths for cognitive 'troubled 
waters' to be crossed. No prayer can radiate with a healing and integrating 
harmony if it proceeds in the direction of degradation of one's inner sense of 
responsibility by placing it in hands of other authorities (including the concept of 
'God'), or if it becomes unrelated to hopes and wishes to find the ways to
provide the fruits of one's goodness to others by being oriented to mere individual beneficence. However, prayers that succeed in achieving the balance between alternate empathic approaches towards the whole world with one's being and receding to recall and reconstitute one's foundations of inner responsibility for the decisions and choices made, become producing 'glowing spiritual music' by such fine oscillations around the central point of balance between the senses of benevolent devotion and inner creativity.

 Numerous traditional gaps between contrasting creative approaches can be bridged and united into single dynamically balancing attitudes by invoking the 'Middle Path' of the Way of Love. For example, a well-balanced harmony between Epicurean humbleness, meekness, renunciation and self-satisfaction, and Stoic predisposition to hardship and missionary engagement in actions aimed for the well-being of others, may be accomplished. The balance between meditative stillness and solitariness, and charitable resoluteness and active involvement in pragmatic creations - that the Serbian Saint Sava preached about\textsuperscript{134} - may similarly become attained in frame of a single, dynamically oscillating state. Subtle fluctuations around the central equilibrium point in alternate directions that correspond to self-withdrawing meditativeness and empathic unity, intimate reflections and gracious acting, holding hands and waving farewells, approaching and distancing, may indeed be responsible for producing the 'enchanting Cosmic music of Love'. Through such a fine dance of perspectives that alternately correspond to meditative inwardness and empathic outwardness, the juxtaposed ideals of Christian Love and Buddhistic 'non-attachment' seem to be transformed from an apparent incompatibility and mutual exclusiveness into single, mutually supporting 'rails' on the passage of the 'train' of Love. A genuine religious sense of connectedness to all the details of one's experiential world and a spiritual, 'free-as-a-bird' attitude of non-attachment can be, therefore, transformed from their seeming contradictroriness to a single dynamically fluctuating perspective. The Christian 'peace' (John 14:27) that corresponds to one's inner peacefulness, quiet gracefulness and blessing acceptance of every detail and being of the experiential world, and the Christian
'fire' (Luke 12:49) related to one's 'burning flame' of empathy, love and desire to co-create each moment of one's life for the sake of enlightening others, may also become merged into a single attitude denoted by the Way of Love. As has been remarked earlier, these two balancing 'sides' may be visualized in terms of fixed points of a guitar string that enable and sustain its oscillations (produced by continual switching from one perspective to the other) and create divine harmonies that spread from the human beings' 'hearts' into the furthest natural breadths.

In the state of a perfect and yet imperfect, always dynamic and balance-seeking balance, one's being fluctuates between the states of Buddhistic non-attachment and meditative inwardness on one side, and blending with the world, becoming One with each detail and being of the experiential world on the other. Considered as an art of balancing diligence in ordering one's 'inner' reflective and aspirational patterns and openhearted devotion to 'outer' details and beings of the experiential world, the ultimate 'meditation' can be regarded not only as an exercise of self-focused and 'empty-minded' attentiveness, but as a practice of balancing and 'medi-ation' between one's 'insides' and 'outsides' through a vigilant knitting of the co-creational threads that religiously link one's foundations of ethics and ingrained values on one side, and 'divine' messages of 'hidden reality' on the other, so that the traditional gap between the Christian notion of 'prayer' and the Oriental concept of 'meditation' can be gracefully bridged. Instead of cultivating a self-immersed resistance to change or a self-losing fictile vicissitude, posing one's attention in form of the 'bridges' between one's 'insides' and 'outsides' presents the key element of enriching communications with all the beings, artistic pieces and co-created details of the experiential world. 'A warrior of light dances with his companions, but does not place the responsibility for his actions on anyone else'\(^{135}\), Paulo Coelho wrote, and the Way of Love correspondingly presents neither a manipulative egotism nor a 'blind' following of pregiven or preconceived rules of conduct, but signifies the balance between accepting responsibility for the development of all the details of one's world of experience and being holy devoted to endow others with the gifts of divine inner
creativity. Self-responsibility as delivered from one's anchorage in sacred values and aspirations, and an empathic pining to see 'how the world looks from the eyes of the other', become combined in a mutually potentiating balance of the Way of Love. As can be inferred from the proposed concept of the co-creational organization of experiences, the more one branches the domain of personal responsibility, the more enlarged the purposefulness and meaning of the whole existence become, and vice versa. Similarly, cultivation of sacred values, wonderful intentions and the senses of self-responsibility, and encouragement of the ideals to support and foster the spiritual growth of others mutually potentiate and reinforce each other in the course of an active emanation of the Way of Love.

Aspirations to empathically 'blend and become One' with the beings and details of the experiential world, therefore, present only one side of the essence of Love, whereas continual changes of perspectives are required in order to avoid ignorant consequences of the 'blind spot' effect that each single perspective generates. Similar as a stone upon which one stands could not be raised, observed and restructured unless one steps aside and changes the perspective of their relationship, the foundations of one's cognitive settings for the processes of observation, abstract reflections and creative actions can be improved only by investigating the effects that belong to invisible, 'blind spot' regions from new perspectives that 'illuminate' them. Despite their seemingly paradoxical character, the moments of distancing and stepping away present inherent aspects of the development of one's knowledge of the encountered systems and enrichment of the patterns of Love that reverberate during the propagation of such subtly oscillating relationships between the observer and the observed. The Way of Love reflects such a dance composed of alternate moments of approaching and 'blending', and again derailing to find novel relationship perspectives with the purpose of mutual development. The popular contemporary slogan which states that 'quality knows no borders' may in the context of the 'blind spot' effect be endowed with a novel and more profound connotation, that is related to the fact that 'boundary knows no boundary for boundary is boundary'. Similarly, by
constantly dwelling on a 'thin edge' of the Way of Love and spreading from there on the relations of goodness and grace one cannot be aware of his inherent qualities, similar as the Sun that 'lives in the darkness' and yet endows the planets with the cheering life, cannot 'observe' its own beauty and meaning.

The co-creational thesis on the origins of experiences, according to which mind and Nature at the same time autonomously and in unison co-create the patterns of individual experiences and natural environments, may be considered as a metaphoric reflection of the same harmony that can be invoked to oscillate between the beings of the world, simultaneously separated and connected by the wavy pattern of the Way of Love. A mastery of the Way of Love may be, therefore, considered as the ultimate 'teaching' goal that emanates from the co-creational interaction between mind and Nature. Consequently, every detail of one's experiential world may be regarded as a 'divine' sign on the subject's way towards 'sunrising' horizons of cognitive landscapes, which depict the ideal of one's everlasting creation of Sun-like, 'shining' relationships with the beings of the world as the sacred goal on a mind that follows the Way of Love. Similar as the concepts of 'invention' and 'discovery' are as a consequence of the idealistic/realistic cognitive balance (that the concept of co-creation of experiences implies) merged into a higher-order form that describes cognitive 'arrivals' at novel experiential patterns, the concepts of faithful 'following' and autonomous and self-responsible 'creating' of the very Way of Love may be also merged into a higher-order intersection form that more faithfully depicts the path that leads to one's mastery of the Art of Loving. Once again, we may be reminded that a precise balance between conformity and originality, imitation and differing, as well as between careful 'keeping' of one's senses upon the subtlest experiential boundaries and self-immersed introspections, presents the way that leads to its mastery.

Numerous fallible repercussions in the social relationships could be noticed as consequential to one's adherence to unbalanced positions on the Way of Love. In this sense, cognitive attitudes could in extreme cases belong to either one's mental and emotional isolation and orientation towards self-beneficial choices
only (which can be the consequence of an adoption of either solipsistic or objectivistic premises in the co-creation of experiences), or one's tendencies to submit and immerse inner creativity and self-responsibility to the authority of others. Whereas in the former case, an utter obsession with bringing comfort and satisfaction to oneself leads to relationships permeated by selfishness, extortion and 'sadistic' animosity, in the latter case a stark 'blindness' by the 'magnificence' of others seems to lead to one's expressional passivity, 'masochistic' submissiveness, loss of the 'dancing' patterns of inner creativity, inert pliability, and weakening of a deeply rooted sense of self-responsibility and self-decisiveness. Ignorance towards an infinite array of divinely marked experiential features as potential sources of all-encompassing cognitive insights, typifies both of these extreme cognitive attitudes in the domain of social relationships. Whereas the thought according to which 'one's faithfulness may be the product of indolence of the spirit' can be applied in a description of the latter, submissive character, Jesus' words which state that 'they are like unto children sitting in the marketplace, and calling one to another, and saying: we have piped unto you, and ye have not danced; we have mourned to you, and ye have not wept' (Luke 7:32), may be used in depicting the former, manipulative character. However, comparing to the extreme points marked by either an incapacity for creative introspections and an overpronounced need to rely on extraneous opinions as supports for edifying one's own character (which is the elementary target of egotistic attitudes: gratification of oneself in eyes of the others), or an ability to seek for the sense of empathy and unity with others only through a monastic renunciation (when instead of finding, one 'loses himself' in encounters with others, which may literally correspond to 'falling in love' in its 'unbalancing' connotation: one's inner creative 'constellations' and numerous details that 'sparkle with wonder' in one's experiential world become disregarded on the account of the subject's blindness by the 'authority' of others), a cultivation of 'the middle Way of Love' might endow one with a simultaneous manifestation of the senses of individuality, tender loneliness and creative distinctiveness on one side, and the senses of empathic imitation, inspirational mimicking and
kindhearted 'blending' on the other. Instead of exhausting each other's creative potentials (resulting from social interactions that are 'out-of-balance' in the context of the Way of Love), they may be mutually accentuated and impregnated through one's practice of the Way of Love.

The nowadays challenging balance between the sense of intimacy and unconditional respect of autonomous existential spheres of others, and the cultivation of an implicit ethics based on the attitude of open-armed, protectional, caring and all-embracing meetings with others, may be naturally embodied through one's following of the balance that the Way of Love signifies. Disgraceful discomfort that is typical of the actions performed in an exceedingly self-aware and overcontrolled manner, and guided as such by one's intentions to fascinate and attract others (i.e. forgetting that care for others is an essential aspect of maintaining the balance on the Way of Love), can be transformed into a pleasant harmony of an enjoying and wondering self-awareness and spontaneous movements through the practice of the Way of Love. Tendencies to unconditionally defend one's own attitudes and research ideas during their open inquiries, caused again by the tendencies to egotistically impress others and gratify oneself, may also be transformed into the harmony of flexible revisions and readiness to change on one side, and a 'faithful' holding on to dear and invaluable aspects of the foundations of one's reasoning on the other. The 'loving' imbalance thus becomes tackled in a direction that promotes care, love and aspirations to sincerely enrich other people's lives and world-views throughout the communications that the subject becomes involved in. In such a balance, the potentials for an ostentatious and overweening 'indoctrination' of others on one side, and a passive and unquestioned obeying standpoints and ideals of others on the other, may become transformed into 'encounters of the equals', which is an elementary attribute of the social relationships based on the Way of Love.

Instead of exalting oneself through the propagation of manipulative and creatively oppressing relations towards others (by viewing others as extensions of one's ego), or self-humiliating and oppressing one's own inner creativity by a
'blind' submissiveness to others, the Way of Love fosters encounters of equals and consequently instigates a mutual opening of the beings in interaction towards the whole range of subtle effects of their respective environments, instead of limiting each other's attention to themselves only. Instead of the satellite-like speaking 'about' or despotically speaking 'to', through following the ideals of 'equality' one may eventually start to speak 'with'. It is neither only 'I' nor only 'You' that presents the key to the passage of Love, but the Way that becomes built between these two firm foundations of the bridge of Love: one corresponding to the reinforcement of one's 'I' of introvert and contemplative powers, and the other one corresponding to the devoted bringing forth the fruits of these 'inner blossoms' to 'You'. Because devotion to others stimulates insights into the deepest secrets of oneself (instead of 'losing' oneself in the opposite case), whereas the reflective exploration of one's cognitive attitudes eventually results in realizing that benevolence, faith, love and care present the bases of human knowledge and that all of one's creative deeds have the purpose of coordinating and 'enlightening' other people's experiences, these two basic 'nodes' of the music of Love may be considered as supporting and strengthening each other. In the context of invoking the need to 'enlighten' these basic implicit 'roots' of the scientific practice as an empathic co-orientation of experiences, the Way of Love may be regarded as a complementary aspect of one's efficient engagement within the scientific community.

At this point we may become once again reminded of the psychoanalytic phenomenon of reciprocal manifestation of manipulative and submissive tendencies at different relational domains. Whereas on one hand manipulative/submissive imbalances typically become reflected on a wide range of diverse experiential aspects, a dominative attitude exerted in certain aspects of one's experiential reality will on the other hand also imply a 'blinded', submissive and lunatic attitude employed at some other levels of the experiential organization, and vice versa. Submissiveness to one's historical, cultural or religious traditions that induces dominative and alienated relationships with other beings, presents a classical example of such an effect. Also, submissiveness to the
authorities of other beings, social groups and organizations typically implies 'manipulative' relations towards one's own nature, which may be evident in terms of the forced patterns of reason and the unquestioning reliance on preconceived prejudices at the level of experiential interpretations. On the other side, submissiveness to one's own 'instinctive' nature without being receptive to fundamental changes and improvements of one's being and knowledge by learning from others, often implies insensitive and manipulative relationships with the being's surrounding. Devotion to sustain the balances between logical rigidities and metaphorical, imaginative aspects of reasoning may be reflected on harmonious and well-balanced social relationships as well. The already presented example of an orange juggler may have supported the idea that the range of 'commanding' in each control loop becomes directly proportional to the range of 'obeying', so that each process of 'controlling' has its reverse side of 'being controlled'. Despite remaining convinced in our efficient 'control' over specific patterns of the experiential world, we may 'wake up' one day realizing that we have all the time been 'slaves' of our own enslaving and manipulative aspirations, so that the whole range of our worldly activities has been, due to our 'blind' and invisible motivations, a creative passivity after all.

According to an inherent interplay between 'sad and lonely' distancing and 'joyful and congenial' blending, the proposed nature of the Way of Love implies that intersections of cheerful and ecstatic cognitive encounters by the moments of distanced contemplations and 'marble statuesque' abstractions present an elementary aspect of all fruitful cognitive relationships. Some of the wonderful artistic pieces reflect this nature wherein the long moments of struggling quests throughout the 'hearts of darkness' in the end become transformed into an optimistic shine and healing tears of joy and devotion that open endless fields of one’s curiosity, inquiring occasions and marvelous work. In that sense and in the light of the ideal of higher-order balances between balances and imbalances outlined at the end of the previous section, the perfect balances on the Way of Love may present only semi-potent states that reflect one's inner sense of perfect harmony, whereas fruitful acting in the sense of improving the world-views of
ourselves and others may be inherently related to acting according to desires to restore the 'lost' balances. These complementary unbalanced states may correspond to either 'over-subjectivistic' or 'over-realistic' cognitive states of one's being. Whereas in the former case, the balance would be restored by aspirations to bring forth the drives for empathic acting, in the latter case the balance would be reestablished by 'moving' in the direction of improvement of the epistemological foundations of one's being by introspective revisions of one's basic relationship attitudes, aspirations and hidden, invisible intentions. However, the central point of equilibrium may still correspond to the Taoistic representation of the void center of a turning wheel as the source of the wheel's usefulness. It may similarly present the central point of the wind mills of our hearts and palms that create and provide the treasures of the 'staff of life' to the whole world, so that falling to the side of meditative inwardness, reflective self-integration and inner edification of our spiritual aureoles with every inhalation, only to restore the balance by giving the fruits of our creativity to the world, imagining 'enlightening blissfulness in hearts and minds of the others' and 'knitting the threads' that mutually connect the cognitive foundations of our beings with the each complementary exhalation, may provide us with successful walking along the line of our spiritual development. However, the question of higher-order balances may remain as a topic for future elaborations of the subtle interplay between balances and imbalances, and between the states of perfect happiness and repenting moments in one's treading the sacred path of Love and evolutionary roads of humanity and life.

This paper has started as a 'dance' pointing towards the dance, and correspondingly it will reach its final stage in the same, dancing manner. In accordance with the idealistic/realistic harmony of the concept of the Way, discoursed in the contexts that range from the origins of primary perceptual qualities, experiential wholes and abstract reflections to metaphysical, ontological and theological mind/Nature relationships to the Way of Love, two complementary principles may be proposed, whereas the second one137 is contributed to the marvelous teaching of Heinz von Foerster:
Idealistic imperative: 'In order to dance with someone, we have to dance by ourselves’

Realistic imperative: ‘We have to dance with someone in order to recognize who we really are’

By fine balancing of these two ethico-aesthetical criteria for seeing & acting, one has an opportunity to surpass the unbalanced ranges that may correspond to either insensitivities to subtle signs of environment to the subject’s intentions and expressions (as the consequence of falling towards ‘over-subjective’ imbalance of the Way of Love), or exhaustion of the sources of inner creativity by passive and similarly ignorant immersion of one’s attention into authoritative figures that seemingly ‘dominate’ the actual environments (as the consequence of falling towards ‘over-realistic’ imbalance of the Way of Love). Instead of becoming either a meditative dancer ‘blind’ to subtle signs that come from the others, or passive imitator with torn ‘strings’ between the ‘wells’ of one’s inner creativity and the common experiential phenomena, one may become a wonderful dancer by dancing the dance of balancing the polarities of the ‘Way of Love’, not in ‘perfectly’ equilibrated, but in dynamically accentuating, ‘perfectly imperfect’ manner. The dynamic, eternally fluctuating harmony between these two principles presents the basis for creating a wonderful music of Nature and being that may keep on drifting with its majestic divinity throughout the ‘leafy’ corners of the Universe.

As the Confucian thread which connects all the other threads, the way of Love proposed herein presents the final and the all-encompassing step on our journey. Standing on its epistemological foundations, one can return to the beginnings of the inquiry that ran throughout the lines of this paper, and with a beautiful enthusiasm and grace re-investigate the elementary qualities of our experiences. The sense of wonder that presented the first steps of this paper have led us to formulating and acknowledging the Way of Love, which will return us
to the wondering beginnings in our endless circles of cognitive, spiritual and ontological evolution.

Conclusion

The co-creational nature of all experiences proposed and elaborated in the course of this paper has implied that the scientific practice could be seen not as an objective and observer-independent method of probing the ‘truthful’ character of reality, but as an everchanging set of pragmatic metaphors applied for the purpose of mutual co-orientation and coordination of human experiences. The foundations of science, religion, arts and common linguistic communication, therefore, belong to benevolent aspirations to point to lovely directions on our individual paths to spiritual evolution and the sunrises that they keep hidden behind the horizons of momentary experiences. Simply saying, the roots composed of the patterns of love and care have presented the sources for all the wisdom that has been dawning upon humanity ever since.

Intending to overcome oversubmissive tendencies to disregard the 'rest of the world' and dissipate one's patterns of inner creativity by 'staring' into each other, Antoine de Saint-Exupery has proposed that 'love does not consist in gazing at each other (one perfect sunrise gazing at another!) but in looking together in the same direction'\(^{138}\). Each tightrope walker’s walk comprises both balancing and linearly advancing aspects, so that realistic/idealistic harmony of the ‘co-creational’ thesis might consequently be reflected on pointing to the ‘same’ sunrising horizons in our common evolutionary ‘walks’ as a complementarity to dialectical facings and ‘inside’/’outside’ reflections that each informational boundary typifies. One of the major points of this paper has been, therefore, pointing to the beauty of pointing and to the sacred quest for the sake of experiencing the divine beauty of questioning, as much as pointing to beautiful evolutionary and cognitive landscapes that are being co-created through the dance between epistemological and ontological foundations of being and Nature, and as such are always extending behind the horizons of common experiences. In order to succeed in such a lucid pointing, one needs to set the ‘compass’ of its
heart in accordance with graceful values, sacred intentions and benevolent aspirations to co-orientate oneself and others in enlightening experiential directions. After setting some wonderful and flexibly revisable cognitive foundations, one opens the door to becoming a prudent ‘tightrope walker’ that may precisely balance meditative and self-immersed ‘burning’ of the deepest qualities within and providing them as providential and ‘sunshiny’ relations towards others. ‘When you make the two into one, and when you make the inside like the outside and the outside like the inside, and what is above like what is below… then you will enter the Kingdom’ (Thomas 22), was accordingly part of the Christ’s teaching, that has pointed to such simultaneous orientation towards ‘within’ and ‘without’, i.e. to cultivating a passionate heart (sustained by the waves of deep ethics produced ‘within’) and yet spreading ‘enlightening’ relations towards others, and as such vacillatingly stepping forward in our imperfectly perfect ‘walk’ over the ‘thin edge’ of the Way of Love.

The main point of this paper has been pointing to simultaneous separateness and connectedness, being two and yet being one as immanent in all aspects of one’s experience, and represented by the universal and omnipotent symbolism of the Way. As we proceed with leaving this work aside and continuing our evolutionary journeys with balancing the balances and imbalances, we may still keep in mind the final scenery of the movie ‘Modern Times’ as a ‘touching’ image of the metaphor of the Way. Whereas after attempting to merge mere pragmatism of perfectionist industrial attitudes and imaginative and ‘imperfect’ essences of humanity, the Little Tramp and his beloved one departure together towards some new horizons, after similar efforts in blending scientific rigorousness with ethico-aesthetical cognitive ‘hearts’ of humanity in the course of the interdisciplinary ‘walk’ presented herein, one’s ‘idealistic’ originality, individuality, distinctiveness and self-responsibility may become blended with the ‘realistic’, benevolent aspirations to ‘point out the ways’, to transform one’s whole being into wonderful providential ‘signs’, and ‘walk’ in unity with humanity towards ‘shared’ horizons of knowledge. Since we have seen that it is the ‘sunrising’ contexts - partly defined by one’s inner aspirations and ethical values
that stand at the foundations of the subject’s epistemological standpoints - that outline the qualities of one’s actions and deeds in the world, beauty and divinity in frame of which we imagine these ‘hidden’ horizons partly define the preciousness and profoundness of the actual journeys and the actions performed ‘here and now’. As the ancient master Lao-tzu wrote: ‘Sacred man does not collect (for himself): he lives for the others, and becomes ever richer; he gives to other people, and lives with ever greater treasures. Heavenly Way blesses, but does not bring harm. The way of a sacred man evolves, but without confrontations\(^ {136} \) (Tao-te-ching LXXXI). And when we see ‘Heavenly cherishing hands’ behind the horizons of momentary ‘encounters’ with experiential details, scientific arguments, artistic pieces and beings of the world during our inquirious quests for the threads that will additionally adorn the arabesque of co-creational patterns weaved in the course of this work, we may spontaneously radiate with the harmony of peace, serenity and gentle gracefulness on one side, and passionate quest for knowledge, love and shining grace on the other.

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