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ON HOLISM AND THE CONTEXTUAL CHARACTER
OF NATURAL QUALITIES

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Presented is a discourse on the contextual nature of physical qualities. The realistic and observational contexts in which a system exists are demonstrated as equally involved in defining its qualities. Each quality could be consequently considered as natural and experiential at the same time. The subsequently proposed thesis of the contextual co-definition of natural/experiential qualities in the relationship between the human mind and Nature is shown to possess numerous favorable ethical and aesthetical implications. The contextual nature of experiential qualities is further correlated with the holistic character of natural systems and events, which is illustrated by several real-life examples. A systemic approach to knowledge is shown to naturally emanate from the acceptance of the contextual definition of physical qualities and the holistic nature of experiences. Methodological problems of the standard, reductionist explanatory frameworks are additionally discussed with an emphasis on the major descriptive flaws of quantificational approaches and in respect to cybernetic and autopoietic organization of physical and biological systems.

KEYWORDS: Biology, co–creation, context, epistemology, holism, physical quality.

INTRODUCTION

Nothing is quite beautiful alone: nothing but is beautiful in the whole.
—Ralph Waldo Emerson, Nature

Despite the fact that the beginnings of the Western tradition of wisdom are marked with the image of Socrates who allegedly (Plato 1984a). used to suddenly stop during his leisure walks and stand still for hours, deeply engaged in meditative thoughts, it seems as if humans nowadays neglect to look over their shoulders and occasionally revisit and revise the guidelines that steer the patterns of their abstractions and actions. Moreover, raising one’s glances upward and looking for heavenly signs to fall upon one seems to have ceded place with an acceptance of worldviews that dictate that all that exists are no “Heavens” above, but particles yielding purely accidental phenomena while moving in random, Brownian

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This work challenges the latter worldview by exploring the steps that may reestablish faith in “the signs that fall from the Heavens above,” although through the perspective of scientific and philosophical reasoning. In the end, we might realize that the immanent divinity of the natural co-creation could be discerned by both observing the experiential foundations of one’s being and raising views toward Heavens. So far, Socrates’ bright statuary posture that reflects his deep engagement in contemplation while carefully observing the patterns of the sky, or the vision of eternal Platonic beauty with Her eyes oriented toward the inner core of spiritual values and yet seeking signs of immanent divinity obscured in every detail and aspect of the world, may serve as a picturesque guidance on our way.

The concept of perceptual, reflective, and social co-creation of experiential phenomena has been in more details discussed in the author’s previous works (Uskoković 2009a, 2009b, 2009c, 2011). To put it briefly, whereas objectivistic standpoints see individual experiences as resulting from passively detected physical outlines of an external world and their projections in terms of directly corresponding images on the cognitive screen of one’s mind, constructivist stances claim that the world of one’s experience is the product of autonomous construction of experiential wholes out of vaguely related pieces of the puzzle of raw environmental impulses. The concept of co-creation of experiential qualities adopts a middle ground with respect to these two ideas. The objectivistic proposition of perceptive observation and reflective discovery of ideas, and the constructivist proposition of perceptive construction and reflective invention of ideas are thus merged into the concept of perceptive and reflective co-creation of experiential qualities. Accordingly, all the products of one’s perception and reflection can be seen as arising in the course of co-creational communication between mind and Nature, which implies creative involvement of both the subject and environmental stimuli in defining features of the subject’s experiential reality. To what extent do these basic forms of human perception come from cognitive predispositions and the biological makeup of human organisms and to what degree are they influenced by natural processes around us is an unanswerable question since we are unable to untangle these two sides; as the co-creational thesis tells us, all the products of our perception and, consequently, reflections, reasoning and hands-on creations arise from the dialogue between mind and Nature. With the concept of co-creation defined, we can proceed to analyze the contextual and holistic character of natural phenomena.

HOLISTIC ORGANIZATION OF NATURAL SYSTEMS AND ITS UBIQUITOUS EXAMPLES

Holistic order wherein none of the system qualities could be expressed as a sole function of its parts is a common feature of all natural/experiential systems. Albeit Aristotle’s opinion that “the whole is something more and something beyond the sum of its parts” (2007), the progress of the Aristotelian thought resulted in the rise and dominance of reductionist worldviews. However, the closely related phenomena of linearization and reductionism present only pragmatic approximations applied to simplify representations of experiential phenomena and facilitate
their mathematical solvability. Just as maps and names become mistakenly identified with the territories and entities that they represent, scientific representations pragmatically simplified by means of reductionist approximations also become erroneously identified as true reflections of the natural order, despite the fact that all linguistic and scientific expressions present only metaphors of experientially observable relationships and events.

In accordance with the standard definition in systems theory terms, first provided by George Henry Lewes (1879) in the nineteenth century, the resultant system properties can be represented in terms of sums of postulated cooperative forces, while emergent system properties are incommensurable and irreducible to relations among entities that figure as system parts. Approximations are typically employed to represent systemic wholes in terms of reductionist relations among the parts of the system and thus enable the observer’s controllable interference with them, although there are always risks that we may falsely identify such approximate and reductionist models with the real organization of the given system. However, the line between the resultant and emergent system properties is an arbitrary one, and depends on the empirical criteria of accuracy imposed by the observer and the contextual and intricate complexity of the relations involved in defining the analyzed system qualities.

If a hypothetic natural system composed of a single entity becomes enriched with an additional entity of the same kind, only an oversimplified mathematical representation of the effective result of such an addition would be “1 + 1 = 2.” In fact, such a mathematical assertion may be valid only on the acceptance of certain “rules of the game” (Wittgenstein 1953). In other words, the given expression may be regarded as meaningless unless the definitions of mathematical operations and numbers inherent thereto become implicitly acknowledged. Because the resulting system would be upgraded with new relationships that figure between the two entities, the final outcome will present “more than and beyond” a simple sum of the system parts. Accordingly, systemic worldviews employ relationships as basic explanatory terms, in contrast to many other conceptual methodologies that rely on entities and “building blocks” as basic ingredients of their explanatory frameworks.

Many examples of holistic phenomena that pervade the natural order at all scales may be given. Since propositions of holism are of systemic nature, relationships that exemplify it could be found in a variety of domains of reality. To illustrate the latter, the following crisscrossing stream of such examples is given.

The meaning ascribed to a linguistic scripture as a whole is irreducible to the sum of the meanings of individual words, sentences, or ideas. The latter are interconnected within a whole in which the meaning of the overall composition contextually frames and endows individual ideas with holistic shades of meaning. The same words and gestures may thus produce thoroughly different effects and impressions depending on the contexts in which they are placed. Modern songs possess a higher qualitative significance than the bare sums of their textual and musical segments placed side by side, while the qualities of any chord or musical composition are not mere sums of the comprising tones and instrumental sections, respectively. Tonal harmonies and rhytmical patterns give rise to holistic qualities
that could not be expressed in terms of the sums of constitutive elements of the musical piece. John Stuart Mill observed in the nineteenth century that “the chemical combination of two substances produces a third substance with properties different from those of either of the two substances separately, or of both of them taken together” (1843). Nutritious molecules of table salt thus present chemically bonded atoms of sodium and chloride that are in their elementary forms toxic to human organisms. Micelles containing more than one surfactant often form at lower concentrations compared to the critical micellization concentrations of the pure constituents (Shaw 2003). As for the field of biochemistry, the stabilizing free energy per amino acid residue in proteins is much lower than their average thermal energy, which means that individually the interactions between amino acids are insufficient to maintain the native conformation of the given protein, although taken together in the protein as a whole they are (Cooper 1999).

The concept of energy in physics could not be defined or employed reasonably while paying attention only to relations that constitute the system attributed with this quality. Instead, the concept of energy needs to be used in reference to the overall spectrum of potential effects that could arise from interactions between a given system and its environment during their co-evolution in space and time. The resulting topological entropy of commutating dynamics is smaller or equal to the entropies of the individual systems, whereas an encounter of two random, chaotic reflections may result in surprising ordering (Almeida, Peralta-Salas, and Romera 2005), just as a combination of two individually losing von Neumann’s games may present a reciprocally winning choice (Barrow 1998), and two paired zero-capacity quantum channels can reliably send information, although each one of them alone is noisy and useless (Oppenheim 2008). The products of multisensory perceptions are irreducible to: simple sums of impressions of individual sensory organs; individual perceptual events disconnected from their historical context; description schemes that built on complex networks of biochemical reactions. Creative communications can give rise to ideas not noticed by any of the participants earlier, which implies that some problems can be solved only through attempts of social collectives. In that sense, life can be considered a “living proof” of how uncertain and labile segments can give rise to stable evolutionary wholes (Beer 1999). Therefore, probabilistic quantum fluctuations give rise to ordered molecular configurations; molecules undergo random Brownian motion and yet give rise to intricately organized biochemical pathways; the latter comprise replication mistakes but still form stable autopoietic networks. Uncertainties in understanding of natural order are thus also ingrained within the continuous streaming of human intellects toward ever more intricate cognitive landscapes.

Numerous examples of symbiotic phenomena may further illustrate the ubiquitously holistic character of natural systems and events (Margulis 1998). Closely huddled together, penguin colonies reduce the effective heat loss in proportion to the number of clumped organisms (Fuchs 2004). Flocked birds in their flight reduce the air resistance and increase individual sensitivities to alterations of perceived patterns in their visual fields (Kelly 1994). Plants have fungi and bacteria attached to their roots, where they assist them in absorption of soil nutrients and the osmotic flow along the stem. Endophyte symbioses of virtually all plants and
animals with microorganisms for the purpose of increasing the resistance to environmental effects and extend the adaptive ranges of the co-evolving species (Owen and Hundley 2004). could provide many examples wherein biological “wholes” achieve more than what the constitutive parts disjointed from the functional context of the whole would be able to. Lichens are symbiotic partnerships between photosynthetic cyanobacteria and fungi that possess a remarkable capability of water absorption and stable adhesion. Photosynthetic and heterotrophic bacteria that live inside cells of specific organisms have been included in the explanations of evolutionary origins of chloroplast organelles in plant cells and mitochondria in other plant and animal cells (Lovelock 2005). Some flowering plant species, including those from the family of orchids and the genus of sunroses, possess not only a symbiotic stem and the cellular structure, but the very seed structure is permeated with a synergetic symbiosis with certain types of fungi.

As far as the logical domain is concerned, presumption of at least a pair of fixed entities and a relationship conditions observation of a hypothetic elementary quality in the perceptive domain. A comparison between at least a pair of perspectives is also required for any logical argument to be formed, which indicates a holistic character of even the most elementary propositions. This is how we arrive at the ubiquitous blind spot effect, that is, a limited perception of any system extensively kept in our perceptive field, without shifting our views to its surrounding which thus proves as essential in sustaining our perception of the very object in question. For this reason, individual ideas are insufficient to comprise the bases of any consistent explanatory networks, whereas at least a pair of logical propositions must be provided for any solid explanatory basis to be formed. Each idea—as much as any existential quality—may be picturesquely represented as stretching its “hands” to relate to the context of its existence, whereby the latter gives rise to its meaning and pragmatic purpose. Referential notions of a given scientific language need to be defined and adopted in clusters (Kuhn 1969), whereby not a single scientific proposition could be strictly compared with experience without taking into account the whole logical system that it belongs to. Willard Quine correspondingly perceived each logical system of reasoning as an object whose outer boundaries correspond to its contact with the experience, and in which each modification of any logical thread necessitates a modification of all the other threads within the system, including its overall state (Van Orman Quine 1951).

What naturally comes out of this infinite extension of factors that influence the states and evolution of any physical system, irrespective of how localized it may be, is the realization of the overlap of a plethora of scientific fields. Multidisciplinary approaches to investigation of natural phenomena thus present natural consequences of adopting the holistic nature of experience. A growing need for interdisciplinary explanations of physical order can be exemplified by a hypothetical observation of a water molecule embedded in a river stream (Corning 2002; Uskoković 2008a). Physical behavior of any natural system is guided by the interplay between inherent, sub-systemic and contextual, supra-systemic levels of its organization. The movement of a water molecule engulfed within a river stream is co-defined by both its inherent quantum physical structure and properties and by the surrounding fluid dynamics, intermolecular forces, geological properties
of the riverbed and the ecosystemic and biospheric hydrological flows and cycles. Understanding its movement then requires knowledge from the fields of quantum chemistry, molecular dynamics, fluidics, Newtonian mechanics as well as the Earth science, geophysics, and ecology. If we become focused only on the interaction between the water molecule and its nearest surrounding, the overall molecular movement guided by the river stream would seem either random or channelized by an unknown set of limiting conditions. The movement of macromolecular cellular components may similarly seem random and uncoordinated unless one climbs to more complex perspectives that belong to the complexity levels of cellular, organismic, ecosystemic, and biospheric wholes. Each announced randomness, accidentalness or meaninglessness may therefore present merely a consequence of the observer’s inability to grasp the context that enfolds and co-guides the movements and evolution of the subtle natural/experiential details in its entirety. Qualities of any natural entity are, therefore, defined not by its structure or internal organization solely, but by a holistic set of interactions between its intrinsic order and the overall context of its existence.

To illustrate that the qualities of any system do not lie in the system alone, but are equally shaped by the physical context in which it is found, aside from the context of its observation, we can look at any stone in our surrounding. All the topological features of it are shaped equally from within as from without. The history of the interplay between the intrinsic potentials determined by the stone’s composition and crystal structure, and environmental factors, such as temperature, pressure, humidity, and friction, defines the actual appearance and properties of the stone. Crystals have a natural tendency to grow such that their visible faces correspond to the most energetically stable atomic planes in the lattice, but at the same time the environmental factors add up their own influence to the physicochemical conditions of the crystal growth. For example, it is known that the level of supersaturation in the medium surrounding the growing crystals defines the crystal growth rate and the surface topography (Mutaftschiev 2001). The origins of shape, symmetry, and every tiny ridge on the surface of a stone can be thus traced back to its insides as much as to its outsides. The intrinsic structural features of the system in question predispose it for certain types of interaction, whereby these interactions, always involving the attributes of the environment equally, define qualities displayed by the system.

As for the effect of observational contexts on defining the qualities of observed systems, we could recall that the properties of the stone result from the interaction between it and the measuring device that includes the observer’s senses and mind. If we touch or press the stone, we may notice how hard or soft it is. However, these qualities are not absolute. They are defined by the nature of the observer and his own notions of hardness and softness. Each of these properties is always denoted as relative to some referential scales, and thus essentially to the properties of other stones and us as the observer. For, as Heisenberg’s uncertainty principle suggests, there is no measurement without an interaction, and whatever we detect in the physical systems is always the product of an interaction between the system and the measuring device, where both are involved in shaping what we will come to consider as qualities of the system.
THE ANALOGY OF LINGUISTIC EXPRESSIONS IN UNDERSTANDING THE HOLISTIC FEATURES OF NATURE

Reflecting on the semantic structure of linguistic expressions can be made analogous to investigation of the holistic organization of natural systems. The lowest organizational level in this example corresponds to either the basic sound frequencies of phonetic expressions or the elementary alphabetic contours of syntactic scriptures, whereas through successively more intricate levels of letters, words and sentences, one reaches the level of meaning of the whole expression as the highest level of its semantic organization.

Principles behind the construction of each of these levels of organization are conditioned, but not caused by the rules that govern the principles of organization at lower constitutional levels. Letters become combined into words in accordance with a familiar vocabulary and/or conventional terminology, whereby the words become incorporated into sentences in accordance with grammatical rules. Individual sentences become arranged into a complete textual composition in accordance with a meaning that the overall expression is intended to invoke in the reader. Finally, just as the overall structure of a book defines one, realistic co-creational side of the subsequent cognitive construction of the book’s meaning, the whole world as a “book of life” defines one, realistic co-creational side of the qualities ascribed to its details. Yet, without the other, subjective interpretational side involved in the co-creation of their meanings, these merely realistic inscriptions and patterns would remain like the inaudible sound of the Buddhist one-hand-clapping or of George Berkeley’s tree falling in a forest destitute of man. For this reason, Hans-Georg Gadamer represented interpretation of linguistic expressions as an encounter between contextual horizons provided by an author and a reader (Winograd and Flores 1987). Likewise, interpretations of experiential phenomena may be represented as encounters between a subjective, interpretational context brought forth by an observer and a realistic context of interactional patterns in which an observed system figures.

Be that as it may, the reductionist attempts to explain cognitive and other holistic qualities of “the book of life” in terms of sole elementary physical concepts are analogous to attempts to explain the emergence of linguistic expressions by referring only to the rules of grammar and alphabetical constraints, while disregarding the equally essential semantic and aesthetical criteria. An analogous situation would correspond to attempts to understand the functioning principle of a computer program from the level of physical transformations that take place in the microprocessor. The patterns of electromagnetic interactions within the hardware are, as in each holistic system, conditioned by the comprising structure, but caused by higher-order emergent qualities that at a particular scale belong to an algorithmic code of software operated by human users.

All complexity levels of natural order, be they atomic, molecular, cellular, organismic, social, ecosystemic or biospheric, possess a specific autonomy with respect to those above them, providing grounds for their stability, while still being partly governed by these hierarchically higher organizational levels. Each complexity level of a book or any natural system may be therefore considered as being
under “dual control” (Polanyi 1968) of the organizational levels above and below. For example, vegetative neural and sensory features may support life at lower biological levels of organization, although they are susceptible to incentives coming from higher organizational levels, including voluntary responses, conscious behavioral patterns and intelligence. This speaks in favor of a cross-like character of natural systems, according to which their development occurs via a dynamic interplay between lower and higher organizational levels that the given systems comprise and constitute, respectively. The balance between “adventurous” ascending toward more holistic perspectives of natural order and “devotional” descending toward lower organizational levels may thus be the key to harmonious acting in light of the natural whole. Staying and being devoted to one’s biological and social background, fostering a sense of sympathy for fellow creatures and experiential details, is thus as crucial for the harmonious evolution of ourselves and our environment as moving on and ascending ever higher in expanding one’s senses of wonder toward ever wider contextual breadths.

With improving one’s communication skills using language, the subject’s attention becomes gradually diverted from alphabetical contours and individual letters and words to semantic levels at which holistic meanings are created. Learned behavioral patterns likewise subside into subconscious cognitive domains and become incorporated in the subject’s repertoire of spontaneous actions. This leads us to observe that everything the subject is aware of in the perceptual and reflective domains of his consciousness presents a profound co-creational motif and invitation to learn and correspondingly evolve, so that the main purpose of the cognitive existence can be identified with learning and evolution (Schrödinger 1944). When trying to decipher a mysterious scripture encrypted with an unknown code, one’s attention is limited to contours of individual letters that constitute the text and the semantic experience is constrained to lower organizational levels of the linguistic form encountered, so that the meaning of the whole is out of one’s comprehensional reach. However, a reader familiar with the given language is expected to read the script without letting his attention linger on individual letters and words. He may invoke the meaning of the text by “looking through” the individual signs and words. Such “looking through” the perceived experiential wholes and into higher and “wholer” levels of their meaning is an essential feature of cognitively evolved observations of the experiential reality. The ability to penetrate from superficial and apparent, tree-like features and simple signs of one’s experiential reality to forest-like holistic and emergent meanings and “signs of the times” typifies profound insights into both the nature of subject’s epistemological foundations and the divine messages of “hidden reality” that pervade the world at all complexity levels of its co-created order.

Dynamic interplay between subtle shifts of one’s focus from the trees to the forest and vice versa, and the corresponding balance between the analytic and synthetic cognitive outfit, may be marked as essential features of wholesome attention and reasoning. However, the endless set of possible products of the co-creational synthesis of lower complexity levels and local entities of natural order into holistic wholes and nonlocal patterns of meaning is reflected in a corresponding infinity of potential methodologies that may be used to describe
emergent cognitive phenomena. Due to the similarity of interactional patterns at various organizational levels of natural order, any particular complexity level may also provide us with a source of systemic, metaphoric patterns that may be applied at other, temporarily obscured scales. Just as inspirational reading implies metaphoric leaps of imagination alongside the rational and patient treading from one symbol to another with the rays of our attention, the basis of creative thinking too lies in combination of logical and analogical relationships.

THE IMPORTANCE OF CULTIVATING INSPIRING MINDS AND ENLIGHTENING THOUGHTS AND ASPIRATIONS

The Duhem-Quine thesis has demonstrated that every physical observation can be imagined as incorporated with a body of networked relationships whose edges merge with the metaphysical domain wherein wider qualities of the scientific and philosophical mind are dormant. With such a holistic overturn, the obscured boundaries between physical and metaphysical domains become seen as essential for the evolution of human knowledge; consequently, the intentional and emotional character of cognitive experiences may be considered as inherent to the foundations of scientific reasoning and the conceptual organization of experiences in general. While these elementary cognitive drives stand at the basis of scientific criteria of selection during the stages of observation, analysis and deduction, they are also emergent qualities on higher complexity levels compared to those at which molecular interactions that constitute them exist. Similar to all other emergent qualities that arise from complex nonlinear networks of interactions and exhibit certain levels of autonomy in their behavior, the qualities of mind are also irreducible to and thoroughly unpredictable from explanations that take into account only lower, constitutive organizational levels. In order to obtain a more complete depiction of the constraints involved in the movement, interaction and evolution of physical entities, irrespective of their size and complexity, these “higher principles” would need to be added to physicochemical laws that are nowadays used alone to explain the emergent qualities of human beings from reductionist perspectives. As derivable from the former analogy with the linguistic constructs, such a holistic reformulation of the principles of causality would correspond to reintroduction of the Aristotelian concept of “final causes” in scientific descriptions, once eliminated from there by the acceptance of causality implicit in Newton’s laws of mechanics (Ulanowicz 2004). Introducing “final causes” and acknowledging the holistic nature of experiences is implicitly akin to sowing the seeds of ancient religious and ethical norms—according to which “we become what we see” and “we reap what we sow”—over the fertile grounds of science and the tradition of empirical and positivistic reasoning. Cultivating one’s cognitive roots, permeated by the deepest tendencies, drives and aspirations, with visions of “final causes” as ultimate destinations where one’s world of experience is heading, could be seen not as a subjective force that would disruptively interfere with the empirical settings of scientific research, but as a complementary aspect thereof, which might lead to more philosophically rigorous and pragmatic reductionist program of science. Reductionism-to-holism transition, as outlined herein, may
thus correspond to gradual adoption of the balance between logical rigor and metaphorical uplifts of inspiration in the realm of scientific reasoning. Such an embrace of both logical and analogical aspects of reasoning might lead to interlacement of quantitative analyticity and qualitative, systemic approaches in the methodological framework of scientific research (Medd 2001).

We have seen how the meaning of a linguistic scripture becomes co-created in an encounter between author and interpreter. During it, meanings appear along the intersection of an objectively imposed space of possible interpretations provided by the author and a subjectively imposed space of interpretational contexts provided by the interpreter. Similarly, the qualitative form of any detail of one’s experience arises at the intersection between the idealistic and realistic contextual spheres of the observed system’s existence. This implies that each experiential detail holographically reflects the natural whole, while it also reflects the essence of the subject’s interpretational context. The latter can be metaphorically depicted as a “sky of one’s mind” that with its brightness or cloudiness endows the features of one’s experiential reality with light or shadowy nuances. It extends from one’s biological and cognitive predispositions to epistemological horizons defined by the deepest values, intentions, and aspirations that quietly and imperceptibly guide one’s perceptual and reflective co-creational “drawing” of experiences.

Acknowledging the holistic nature of experiential phenomena draws us closer to the need to embrace the importance of cultivating benevolent and inspiring thoughts, aspirations and emotions. This is particularly so because these cognitive qualities may be considered as not localized and supervenient products of interactions of elementary physical entities, but as co-conductors of both the dance of constitutive atoms and the music of emergent qualities that arise at higher organizational scales. Furthermore, the pragmatic nature of scientific, linguistic, and all other communications, which dictates that their purpose is not to reflect objectively truthful states of universal reality, but to orient others toward horizons of enlightened perception and action, implicitly points at love and care as vital for flowering of every scientific discipline. Representations of natural order as inherently holistic thus awaken personal responsibilities for not one’s actions only, but for the finest patterns of one’s thoughts, emotions, and intentions as well.

Changes introduced in one’s environment metaphorically reflect changes established in the domain of one’s conceptual organization of the experiential world, and vice versa. Hence, we cannot expect improvements of informational landscapes of natural and social environments while neglecting advancements at the cognitive level, and vice versa. Each discovery that applies to improvements of natural order should be therefore ideally followed by inquiries as to how these discoveries metaphorically relate to discoveries at the cognitive scale, and vice versa. Pragmatism and idealism are thus shown as tightly interconnected. Benevolent acting provides conditions for profound seeing, whereas profound seeing provides conditions for beneficent acting. Hence, the original presentation of the Club of Rome’s “Limits to Growth” model ended with the following remark: “The last thought we wish to offer is that man must explore himself—his goals and values—as much as the world he seeks to change. The dedication to both tasks must be unending” (Meadows et al. 1972). Human values as cognitive “treasures” that enrich subjective interpretational contexts accordingly co-evolve
in the co-creational correspondence with the realistic contexts of the respective environment. As a result, truly viable actions for individual beings are viable for Nature as the being’s overall existential context, which may be supported by numerous ecological examples (Bateson 1979). Since transferring identical atoms, cells or human creatures from one context to another thoroughly changes their activities, behaviors and qualities, the prosperity of each natural entity lies in its acting/perceiving guided by the ideal to foster the prosperity of its environment. To conceive actions and to perceive the world with the aim of bringing happiness to others is thus a brilliant ethical and aesthetical norm that sprouts from the essence of the proposed thesis.

Stewardship of the contextual character of one’s existence thus corresponds to sustainable upbringing of one’s own being. Sane ornamentation of picture frames in terms of its overall contextual surrounding is complementary to the sole painting efforts. A fine balance between the two marks the potential for provision of inspiring co-creational encounters in which the eye creates the picture, while the picture, in turn, creates the eye. Autopoietic organization of biological systems (Maturana 1987) wherein system components continuously re-create each other reflects the same ethical ideal of selfless and environment-edifying creativeness that emanates from the holism of natural order expounded herein. In contrast to reductionist worldviews which describe cognitive qualities as passive epiphenomena that have zero capabilities to direct and harmonize the functioning of constitutive organizational levels, the concept of holistic co-creation depicts human minds as emergent cognitive spheres whose ontological centers of existence “spread” their “arms” to encompass ever wider natural breadths, inflating themselves in the course of their development and evolution, all until they become One with the whole Nature.

BIOLOGICAL ENTITIES AS INSOLVABLY COMPLEX

Holism in general dictates that from the perspectives of lower organizational levels of natural systems, qualities and phenomena that emerge at higher complexity levels of the systems’ organization are typified as original, unpredictable, and indefinable. The holistic nature of cognition thus suggests that reductionist and merely quantitative explanatory approaches could not present the final points in scientific representations of physical reality (Byrne 2001). Instead, to ensure the progress of human knowledge, they ought to be used in pair with qualitative and narrative representations of experiential events. In comparison with the classical scientific representations of life forms based on their deterministic evolution in accordance with pre-established, closed, universal, mechanistic, reductionist, and time-symmetric physical laws, representations of life that emerge from the perspectives of complexity science are ones in which living creatures are characterized by inherent indeterminism, effective irreproducibility, ontogenetic and evolutionary unpredictability, structural irreversibility, complex interplays between asymmetry and symmetry, final, holistic causality and contingent phenomena (Ulanowicz 2002). Hence, fundamental explanatory principles in scientific comprehension of cognition and life could be ultimately related not primarily to substances, quantities, and forms, but to qualities, propensities, and relationships.
Biological systems are thermodynamically open, far-from-equilibrium and dissipative physical structures (Kondepudi and Prigogine 1998) whereby distancing of a system from equilibrium corresponds to an increase in the degree of its complexity and the degree of nonlinearity and insolvability of the equations that describe it. Transformations of experiential features into partially solvable mathematical models are based on a couple of assumptions (Hiett 1998, 2001). First, experiential features need to be fragmented into entities; secondly, finite sets of qualities are assigned to these entities, which present their interactional causes. In the linguistic domain, such categorization would correspond to classification of syntactic notions to nouns (as entities), adjectives (as qualities), and verbs (as interactions). The corresponding models of natural events become attributed with redundancies, which justifies the misleading acontextual explanations of experiential phenomena.

However, whereas in physical systems that exhibit thermodynamic equilibrium molecules could be approximated as almost independent (Boudourides 1995), the same entities incorporated in cyclical self-organizational biochemical interactions display simultaneous autonomy and connectivity, including an exceptional level of coherency and global cooperativeness. The evidence in favor of the stochastic character of all natural phenomena may come from: (a) the stochastic character of genetic evolution and mental processes (Bateson 1972); (b) the cybernetic principle which states that each novelty requires a source of randomness (Ashby 1956); (c) the observation that metabolic energy that ATP molecules store in their arrays of negatively charged phosphate molecular groups is not sufficient to deterministically drive the overall spectrum of intracellular reactions, but is sufficient only for choosing among specific molecular options of movement and interaction under the Brownian “surf” of intracellular entities within the watery cytoplasmic medium (Theise 2005).

Whereas physical laws used to explain natural systems from the classical viewpoints are time-reversible, biological creatures are memory-based systems in which discontinuous irregularities arising during their ontogenetic and evolutionary flows become ingrained in form of inherent structural and dynamic patterns. As such, they could be represented only as historical, irreversible systems. The postulated reversibility of natural phenomena is intrinsically related to the concept of reductionism, according to which natural systems are represented as composed of elementary “bricks” that may be reassembled without losing any significant system properties thereby. However, “who would study and describe the living, starts by driving the spirit out of the parts; in the palm of his hand he holds all the sections, lacks nothing, except the spirit’s connections” (Furlong and Vernon 1992), as Goethe observed. Yet, the idea of redundancy of natural systems still dominates common thinking, leading to overly valued mechanistic, duplicating reproductions, uniformities and rigid standardizations, and inducing imbalanced cognitive states, either in the direction of over-compliant, unquestioning, programmatic, and self-irresponsible, or divergent, overly independent, mentally and emotionally isolated mindsets.

Although emergent properties can be formally acknowledged from investigations of the global dynamics of interactions between assigned “parts” of complex
mathematical models, only conditioning effects (but not causal effects as well) in whole ↔ parts relationships could be demonstrated thereby. Hence, evolution of any partially autonomous cognitive system inevitably remains outside the scope of one’s potential to exhibit a perfect control thereupon. The non-redundant character of natural entities, as indicated by the contextual co-definition of their qualities, altogether with the corresponding necessity to employ an infinite number of variables to reflect qualitative infinities that each natural entity consequently abounds with, traces us back to Sherlock Holmes’ problem-solving instruction: “One’s ideas must be as broad as Nature if they are to interpret Nature” (Hoff 1992). In other words, there may be no way to perfectly represent biological systems other than to re-create not only the entire biological system in question (Richardson and Cilliers 2001), but the whole wide world that enfolds the context of its existence.

Cognitive phenomena and other emergent biological qualities are being continually re-created by the self-productive cyclical organization of internal organismic relationships. The cyclical arrangement of autopoietic components of life leads to high levels of sensitivity to environmental stimuli. All cellular processes, including DNA replication and transcription, therefore ingrain operationally closed autopoietic networks, but are also incessantly open to internal perturbations by environmental stimuli. While the interplay between thermodynamic openness and the internal homeostatic character endows biological systems with the potential to perform work and autonomously maintain and develop their perceptual representations of experiential realities, it also leads to resistance of biological systems to descriptions in terms of closed sets of mathematical equations.

Finally, such nonlinear networks of relations provide grounds for bifurcation and chaotic phenomena dominated by supersensitive states where ostensibly minor and negligible effects can produce all-encompassing and paradigmatic changes in the organization of the system as a whole, while seemingly tremendous effects can end up dampened and immersed in inexorable, homeostatic, and equifinal (von Bertalanffy 1968) feedback pathways of the organism. Because small variations in initial conditions can result in significant deviations in the outcomes, biological systems are susceptible to butterfly effects (Gleick 1987) or, as in concert with Henri Poincaré’s idea, “small differences in the initial conditions may produce very great ones in the final phenomena” (Gribbin 2004). In that sense, “the changing values and ideals of people are the butterflies that, flapping their wings, determine which way society will grow and develop; it is up to each of us to flap our wings and to launch our bifurcating societies along a humanistic evolutionary path” (Vögl 2001), as Ervin Laszlo observed.

**CONSEQUENCES OF THE QUALITATIVE INFINITY IMPLIED BY THE CONTEXTUAL CHARACTER OF NATURAL PHENOMENA**

In the previous sections we have seen that experiential qualities emerge as results of the co-creational interplay between: (a) realistic spheres of relationships that figure in the interaction between observed systems and their ontological environment on one side and (b) subjective spheres of relationships that figure in the
interaction between observed systems and the epistemological foundations of the observer’s interpretational attitude on the other. Natural qualities may be then regarded as inherently connected to the contexts of both their realistic existence and subjective interpretation. However, each one of these encountering contexts, which may correspond to the metaphors of being and environment in biological, mind and Nature in metaphysical, and spirit and God in theological conceptual frameworks, presents an imperceptible one-hand-clapping since emanation of experiential features is preconditioned by their inextricable intertwinement within a higher-order concept of co-creation of experiential qualities.

Qualities attributable to the co-created, either perceptual or reflective experiential wholes, inevitably exist only as sets of relations to presupposed constancies that define the context of their realistic existence and experiential perception. Even hypothetically identical experiential patterns would “possess” different inherent qualities under different contextual conditions of their co-creational observation. A potential qualitative infinity as the consequence of the limitless optional space of interactional possibilities may thus be deduced. An absolute qualitative analysis of any natural system, regardless of its inherent simplicity, would require introduction of an infinite number of variables in order to satisfy the criterion of perfect description. Such a proposition of qualitative infinity immanent in any particular experiential/natural detail is in concert with the infinite potential of observational possibilities proposed by Kant, the Buddhist belief in the existence of infinite possibilities dormant in the smallest natural fragments, and Spinoza’s opinion that “every substance is necessarily infinite” (1677, p. 4). The knowledge of qualitative infinity of experiential entities may spur the development of cognitive stances that will be the starting points for devotion to meticulous exploration of small and seemingly minor experiential details, transcending the tendencies to exhibit superficial attentiveness and a desire to swiftly reach final answers to the worldly puzzles and classify natural details into all-encompassing categorized schemes of knowledge, once and for all.

In light of the contextual co-definition of experiential/natural qualities, the qualitative infinity of existential potentials and interpretational meanings as dormant in any co-creational encounter in the domain of one’s experience may be inferred. Instead of redundant, coded, and reductionist worldviews based on proposing qualitative limitations (Bohm 1957) in physical order, every minute detail of one’s experiential reality could be regarded as a reflection of the ever-changing contextual infinity that constantly renews qualities of its everyday contents, providing open doors for penetration into infinitely large along the tracks of an attentive absorption into infinitely small. As a consequence of the contextual, holistic nature of physical order, each observational and explanatory perspective covers special and unrepeatable experiential fields, so that every individual provides a unique cognitive source of experiential phenomena. Consequently, an ideal approach to amending the ill-conceived patterns of reality is never such as to repeat itself; rather, it incessantly modifies its surface and the core, knowing that even the most static systems are subject to constant modifications of their qualities due to the ceaseless change of the contextual skies that hover over them. There is thus no formula on how to achieve perfect balances independently of the ever changing
contexts in which they exist, which highlights the relevance of the saying that “the most fundamental doctrine is that there is no most fundamental doctrine.”

Because the meanings attributed to experiential patterns depend on both realistic and interpretational contexts intersected along the line of the co-creational interplay between mind and Nature, each experiential quality may be regarded as a “sign of the times” that reflects both the ontological order of the complete Universe and the whole subject’s history of being and knowing. Intersection of realistic and idealistic contexts in co-creation of experiential phenomena is yet another formulation of the interplay between “beauty in the eye of beholder” and “hidden” providential foundations of divine Nature that underlies the emergence of all details of one’s experiential reality. Yet, the infinitely deep and inexplicable character of the contextual spheres of both the epistemological and ontological co-creational sides implies that the acceptance of versatile explanatory perspectives is the path that leads to enrichment of human knowledge.

Just as a forest map could not be drawn that well by our leaning onto a single tree as it could be done by our walking around and switching observational perspectives, concise and detailed representations of experiential events require incessant comparisons of mapping results derived from a multitude of observational perspectives. Interpretation of experiential qualities in terms of particular systemic wholes is dependent on perspectives of their observation. Drawing boundaries that separate/connect systemic insides and outsides presents a co-creational act and is partly subjective, autonomous and arbitrary as such and partly prone to subtle realistic hints on how each particular process of distinction should be performed. Experiential systems that from blowup perspectives appear as an obscure disarray of intricate interactional patterns may be discerned from more “aerial” perspectives as a multitude of interactions pervaded with certain periodicities describable by means of physical laws that would enable prediction of their evolution and controllable practical utilization, or vice versa. Simple stepping aside and switching perspectives can therefore lead to discoveries of great significance. Learning about the contexts in which one’s ordinary actions and creative engagements take place may thus lead to great improvements of these activities.

Generalization and specialization may be consequently regarded as supporting and accentuating each other during either specialized “diving for pearls” or systemic “swimming in the sea” of general patterns of human knowledge. One finds meaning and creative potentials in implementation of scientific knowledge by observing it from the perspectives of artistic creation, technological design, and sociological, philosophical, and ethical studies of scientific practice. Expansion of the context in which one observes daily tasks, therefore, presents the key to spurring senses of satisfaction and reaching the ideals of wise management of these small “labors of love.” Keeping an eye on an all-embracing Gestalt of natural order may naturally predispose one for diligent and humble conduct of daily routines as well as their pervasion with a quiescent sense of wonder, serene and tranquil throughout both jubilant and arduous times.

Interpretational contexts within which a being encompasses experiential features are continually co-created through interaction between the subject’s sphere of questioning relationships directed towards an observed system and a realistic
sphere of ontological relationships that connect the observed system with the rest of the world. Each co-created experiential detail could be, therefore, considered as a way that relates the observer with infinity of natural relationships, providing indirect encounters with the entire physical reality. In the opposite direction, all subtle thoughts and intentions may be similarly relatable to the entire existence and depicted thereupon as “messenger doves” that incessantly emit “waves,” inspiring and harmonious or disruptive and turbulent, that reach even the most desolate corners of the world.

Epistemological and ontological foundations of being and Nature are, therefore, reflected in each experiential quality, so that meanings can be in general defined as experiences of the context (Vögl 2001). In accordance with the conceptual framework of quantum field theory where physical entities are represented as patterns of relations with which they spread their essence toward their existential contexts, all observations result in coalescence of content and context into a single interdependent relational unity. An essential philosophical offspring of such a conceptual outlook has been related to the idea that physical entities could not be investigated or described apart from the rest of their contextual, both epistemological and ontological existence. Just as deteriorated meanings and communicational misunderstandings result from comprehension of human expressions in limited interpretational contexts, all natural/experiential qualities need to be meticulously extracted from the infinite existential contexts in the course of their observation and interpretation, so that the extent of the lost ranges of these qualities that figure as relations between given systems and their environments is minimized and yet referred to in terms of intentionally omitted relationships as the consequence of employing a given set of pragmatic approximations.

Communicational misunderstandings caused by a neglected reference to wide contexts of relevance during defining and describing experiential qualities are numerous. One example are journalistic representations of social events, surprisingly insensitive to the fact that identical claims presented under slightly changed contexts may sometimes invoke thoroughly opposite and unintended interpretations. The other example comes from the fact that what may appear as a sign of sincere friendship in a narrow context can oftentimes be seen as a corrupted activity in light of the whole. The contextual co-creation of systemic qualities implies that what is viable in one cognitive context and for one particular being could turn out to be confirmed as inconvenient and inappropriate in other cognitive contexts and for other beings. This yields incentives for fosterage of communicational attitudes based not on forceful propagation of opinions with disregard of the contextual importance of its presentational and interpretational aspects, but on embracing innumerable contextual effects in delivering our points across and grasping other people’s ideas. Being aware that full contexts in which the history of another being is enwrapped are predestined to remain unknown to us is the first step in letting the ignorantly judgmental and know-it-all attitudes swap places with enlightened worldviews that humbly “see a world in a grain of sand and a heaven in a wild flower, hold infinity in the palm of your hand” (Bloke 1803).

Aristotelian ideals of objective, observer-independent criteria of truthfulness and the methodological tools for evaluation of all possible linguistic assertions in
reference thereto are adequate to an implicit dissolution of the contextual effects in the domains of formulation and linguistic expression of ideas and narrowing the infinity of natural qualities down to a redundant and acontextual set thereof. Partial elimination of the contextual significance in evaluation of experiential qualities presents a necessary precondition for the application of truthful compositional and interpretational criteria and objectivistic acknowledgement of language as an indicative system of experiential mapping with the purpose of yielding not pragmatic, partly subjective and therefore untruthful directives in mutual coordination of experiences, but representations of the world as-it-is, independently of the subjective aspects of the experiential co-creation. Despite this, we have seen that interpretational and realistic contexts partly outline the inherent qualities of observed systems, which is a stance that restores the vital qualitative infinities back to the heart of reality.

**CONTEXTUAL NATURE OF EXPERIENTIAL QUALITIES AS RELATED TO SYSTEMIC KNOWLEDGE**

Some of the most valuable ideas, ethical norms, and parables that pervade the tradition of human knowledge are typified by their systemic nature, which predisposes them for application in an endless variety of interactional contexts. The beauty of systemic knowledge comes to view when it teaches us to recognize minute and seemingly insignificant details of experiential worlds as pervaded with enormously important patterns and relationships that can be applied in a wide variety of contexts. Careful and humble observations of natural events and relationships have ever since been the source of metaphorical inspirations and arrival at enlightening sparkles of thought that initiated findings of numerous problem-solving approaches.

Systemic knowledge may be considered as a natural complement and a pragmatic companion of any form of specialized methodology. It is neither equivalent to scattered and encyclopedic proficiency in classifying natural entities or overly simplified generalizing, but may be rather described as the Confucian thread, tiny but immensely useful due to its ability to relate to all other threads of thought, eventually assembling them into cordial and inspiring and yet scientifically consistent and practically potent cords. Owing to broad adaptive capabilities and capacity to seek innovations, unprecedented in the living world, human beings may be considered as biologically empowered with the ability to engage in systemic thinking that saves them from becoming confined in excessive specialization and mechanical performance of the same tasks over and over again. Such unnatural repetitive acting tends to suffocate the natural inquiry, inherently related to agile switching among various perspectives and synthesis of higher-order impressions by comparing the same concepts and processes from various interpretational contexts. The ecologically devastating trend which sees human users largely unaware of the wide range of effects produced by their utilization of various appliances may be seen as partly caused by the present-day overemphasis of the merits of productive specialization on the account of neglecting the importance of placing human actions in broad contextual networks of social and ecosystemic interactions. Understanding
of various interpretational perspectives and worldviews enlarges the scope of one’s grasping the overall context of existence, and *vice versa*: by learning about the letter, one gathers more zeal to encounter in sympathy other cognitive perspectives of the world. Hence, if one wants to become successful in big, one has to learn to be small, and *vice versa*: if one yearns to become diligent and effective in small, one has to keep an eye on the big, outspread the contexts of one’s existence and plunge one’s mind into its infinite vastness.

The apparent ease with which children absorb and construct new patterns of knowledge is the direct consequence of their ability to flexibly “instill life” into interpretational contexts that are the key to successful learning. Amazement of a child encountering amusing experiential details is partly the result of his flexibly changeable interpretational contexts (Howie et al. 2000). Second-order learning (i.e., meta-learning or learning of learning) related to learning to manipulate the contexts of one’s learning thus presents a learning task for the practical epistemology of the future. Educational advancements could be therefore defined as the levels of expansion of subjective cognitive contexts that co-define minute characteristics of experiential details. The aim of this expansion is to reach and reflect the whole Nature in one’s context of perceptual and interpretational co-creation of experiential qualities and recognize both epistemological essences of one’s being and ontological essences of the entire existence reflected in every particular detail of the world of one’s experience.

Genuine learning that broadens the context of one’s experience of experiential features proceeds in parallel with an enlightening edification of the epistemological foundations of one’s being. The parallel development of ethical–aesthetical foundations of one’s epistemology and interpretational contexts of one’s experience may be inferred from the observed simultaneous broadening of the latter and of the sense of responsibility for one’s actions and choices in relation with ever larger existential wholes, which naturally holds a great ethical and aesthetical value. In contrast, the narrower the contexts in which one’s experiential details exist, the higher the degree of submissiveness to authorities of the world and preoccupation with one’s own well-being and short-term beneficence. The co-creational character of experiences implies that all experiential details are partly created by the subject and may be consequently represented as extensions of his own being, so that broader contextual spheres of one’s reasoning may be considered as identical to broader limits of one’s being. The co-creational origins of experiential reality, furthermore, implies that each scientific investigation simultaneously illuminates the epistemological heart of the explorer (from which the fundamental epistemological questions with which one approaches investigation of experiential phenomena arise) and the ontological foundations of Nature.

Numerous classical ideas that pervade contemporary approaches to understanding experiential phenomena may be challenged on the grounds of the contextual character of natural qualities. For example, molecular machining ideals that tend to base the fabrication of functional nanoscopic materials on manual or robotized atom-by-atom arrangements are challenged by the fact that in order to produce a desired interaction between two physical entities, irrespective of their size and complexity, not only their internal structures, but the overall surrounding context
of their physical encounter needs to be precisely set as well (Baum 2003). Although the basic truism of molecular biology is that “structure defines function,” sole identification of static structures of biomolecules is insufficient to provide conditions for precise definition of their functions (Peyrard 2004; Van Regenmortel 2002). Depending on the interactional in vivo context, cholesterol can be a lipid biomembrane fluidity and transport balance regulator, second messenger in signal transduction and/or precursors of bile acids, vitamin D$_3$ and steroid hormones (Uskoković 2008b). As such, it provides an example of a versatile multitasking nature of structurally identical biomolecular entities under different biochemical contexts. Cholesterol is soluble in alcohols and insoluble in water (Uskoković 2008c), and from a narrow viewpoint one might be tempted to think that consuming alcohol may help in dissolving atherosclerotic deposits in the blood. However, by disrupting the structure of cells and tissues, the eventual effect of consumption of alcohol turns out to be quite opposite: higher levels of triglycerides and cholesterol in the blood. This indicates that the effects of chemical substances on the body need to be evaluated from holistic perspectives, taking into account the most distant side effects, which frequently become reinforced through multiple feedback loops all until an opposite effect from the one expected from a narrow perspective is brought about. Finally, despite the popular dichotomy between good and bad cholesterol, there is only one cholesterol molecule and what makes it “good” or “bad” is the structure of the binding lipoprotein complexes that transfer it through the bloodstream. The contextual definition of systemic qualities also implies that experiential patterns observed from narrow perspectives as ineffectual may be seen as genuinely purposeful from wider ones. This could be illustrated by cellulose, indigestible and seemingly worthless ingredient of the human diet, though seen as an essential nutrient as soon as one broadens the actual interpretational context to incorporate the general pattern of metabolic relationships of human organism as a whole. Hence, there are no intrinsically healthy or unhealthy patterns in life. It is their place in relation to the corresponding existential and experiential contexts that endows them with specific qualities.

WHERE FOUNDATIONS BECOME CONTEXTS

In the conceptual framework of quantum field theory, physical entities are represented as patterns of relations with which they interact with the corresponding contextual environments. As each physical entity could also be represented by a wave function, this brings to mind that the essence of music lies not merely in musical instruments, but in harmonic relations spread between a listener and the instruments. Likewise, essential realistic traits of physical objects and biological creatures rest not in themselves only, but, more importantly, in patterns that arise in their spreading out to the world. On the other, idealistic side, the value and meaning of perceived experiential details and creatures of the world stem not from their contents and forms only, but from the relations drawn within the contextual skies of their partly subjective and partly realistic co-creative being. Such a viewpoint entails that each detail of reality and each product of human creativity could be
found intellectually satisfying under precisely set contextual skies drawn during the observer’s perceptual encounters with them. Satisfaction felt while enjoying a piece of art, for example, is partly provided by one’s enfolding of the given perceptions within contexts under which both they and the entire world of one’s experience at the moment appear enlightened.

Similar to the painting frame, interpretational contexts during experiential observations remain implicit. To perceive them, it becomes necessary to ascend to higher observational levels that correspond to observations of one’s primary observations. However, climbing to the roof of our knowledge and wondering with our gaze across its starry horizons is how we enter the metaphysical realm and eventually strengthen the foundations of our spirit. Choices over the context in which we observe experiential details accordingly leave subtle traces and engrave perennial patterns of inherent values on epistemological foundations of our knowledge. Akin to a celestial sphere that enfolds us and provides contextual limelight to the space of earthly interactions, while serving as a source of marvel that stimulates cognitively developmental drives, contexts of one’s comprehension of experiential phenomena are engaged in continuous feedback with the subject’s epistemological foundations. By enlightening the latter in terms of ingrain sacred values on stones and pillars that comprise the bases of one’s observational perspectives, the contexts in which experiential details are seen become illuminated by a clear and inspiring sunlight of reason.

The confluence of epistemological foundations and interpretational contexts into a single whole connects us with the nonlinear nature of abductive reasoning and interactive circular causality that pervade each aspect of cognition and biology (Kordeš 2004). By descending to the secrets engraved at the foundations of one’s being, one may be depicted as simultaneously ascending and soaring as a bird does on airstreams of wonderful imaginativeness that an interplay between subjective observational contexts and the hidden worldly beauty in one’s eyes form, opening sublime, aerial perspectives on one’s experience. Finally, the fact that the fundamental purpose of philosophical approach is examination of foundations of one’s knowledge (Plato 1984b) highlights philosophical research as the attribute of study of creative contextual conductance of one’s thoughts and actions. Value-illuminating enquiry over one’s epistemological foundations may be, therefore, seen as corresponding to brightening of an invisible contextual sky under which one a priori interprets and a posteriori contemplates on the observed experiential details and acts.

In the end, we shall recollect the basic premise of the co-creational thesis, according to which the qualities of natural systems neither rest solely in themselves, independent on the observer’s epistemological settings or the complete realistic relational environment, nor present solipsistic reflections of the observer’s sole deepest epistemological attitudes. Experiential qualities instead present co-created patterns that arise at the intersection of the subject’s epistemological foundations and the ontological foundations of Nature. Essential qualities of experiential details could be, therefore, imagined as if resting on the strings spread between mind and Nature, tightened at its ends to epistemological, “soul-rising” pillars of one’s being on one side and ontological, “God-rising” foundations on the other.
Standing on the pedestal of co-creational thesis, the graceful and serene, slightly distant and inwardly oriented, “cold and white marble statuary” cognitive posture of ours under joie de vivre contexts spreads its arms of relationships in search for “infinity in the palm of your hands,” having elaborated that essential qualities of experiential details and living creatures alike are not immanent in them, but are being constantly spread to the world in form of their relational shine. Even when there would not be us any more, the essential patterns of our beings will thus continue to float across the sea of the Universe. Gracious thoughts and aspirations ringing from the core of our hearts, applied to bath and purify cognitive perspectives of ours and others in, are incessantly flying from us like white doves that deliver messages of divine beauties to the fellow beings and intersperse the world with “signs of the times” that will come to provide delicate incentives for creative acting to some distant beings of the world. Every moment here and now may be, therefore, considered as one reflecting the whole eternity in itself, and vice versa: the whole existential infinity reverberates within each detail of reality. On the epitaph of a monument of stone to Christopher Wren in St. Paul’s cathedral in London, it is correspondingly written: “Reader, if you seek the memorial, look around you,” as if urging us to face these “signs of the times” interspersed like stardust within each detail of our experience with the sun of our spirit.

CONCLUSIONS

Approaching the final destinations and turning back to where the walk of this discourse has started from, we come to realization that there is indeed a necessity for occasional redirection of our cognitive views toward contextual skies of both realistic and idealistic ambiances in the course of their co-creational meetings from which all experiential qualities emanate. This may eventually transform one’s cognitive stances into a spiral progression through constant balletic twirls wherein prudent and ponderous swirling backward so as to reach the epistemological foundations of one’s reasoning and looking up towards contexts that endow experiential features with the shades of meaning and a sense of timeless beauty ceaselessly alternate with each other. Continuous interplay between the ontological, “heavenly sky” of Nature and the epistemological “sky of the soul” has been shown to co-create the features of all experiential/natural systems. While facing the realistic aspects of experiential horizons has the chance to overwhelm one with astonishing wonder, facing its subjective aspects corresponds to explorations of epistemological foundations of one’s experience and their eventual enrichment with sacred treasures of life in terms of precious values, emotions, and aspirations. Wonder and Love can be, therefore, after all, glimpsed as a couple of mutually potentiating aspects of sublime acting in the world. And in the long and sacred quest for eternal beautification of the world, one may realize that this pair of aspects presents two poles of a single whole, wherein their endless interplay makes experiential worlds as the emanations of the divine to arise and evolve.
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