The Self Archetype and Ecobiopsychology

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ABSTRACT. - Depth psychotherapy, in different models, is currently facing the turbulence of neuroscience developments, the emotional richness of modern conceptions of trauma and attachment, and the opportunity for mutually fruitful exchanges with the most recent acquisitions of quantum physics and evolutionary biology. These important cultural advances require some sort of revision of psychotherapeutic working models given that, in the climate of convergence of depth psychotherapy with the theme of the archetypal, neurosciences, and more generally with quantum physics and evolutionary biology, the foundations are being laid for a new epistemological framework of complexity - ecobiopsychology - in which mind, brain and nature are part of an *in-formative* field originating in the Akashic field. Today this systemic-complex need is seen as necessary to offer us a vision of a world that is less and less topographical and more and more holographic. In this perspective, traditional constructs such as the unconscious, empathy, somatisation, conflict, alexithymia and others should be integrated, through symbols and vital analogy, with the concepts of cognition, archetype, the imaginary, and *in-formation*, so that psychotherapy is not limited to exploring the ego complex but aspires to focus on the dissociated states of the Self, thus recovering a more integral vision of the patient's discomfort.

Keywords: hologram; cognition; archetype; ecobiopsychology; analogy; symbol.

The emphasis on rational thinking, typical of the Western scientific mentality, has determined a progressive fragmentation of the relationship between Humankind and Nature with enormous repercussions at all levels of humanity where, in the name of the most varied ideologies, an infinite series of conflicts have been decreed between peoples and nations (Capra & Luisi, 2014).

Today, to think there is a separation between all aspects of the bio-psycho-social universe means reproposing the ancient dichotomy between matter and psyche which has troubled philosophical thought and has led to devastating effects on our identity. To regain our identity, we need to recreate a

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healthier relationship with Nature and the whole plot of Life, so that the consciousness of modern human beings can harmonize with the reality of the laws of Nature. It is quite true that the scientific insights of Western science with their seemingly penetrating eyes set firm in their orbits, aim to give voice to the intimate essence of Life and Nature in the search for its foundations.

In its unilateral progress, however, this reductive mentality recalls the metaphorical vision described by the Taoist philosopher Chuang-Tze, who cautioned against the risk of a one-way reading of the paradigms of life. Here is the metaphorical tale:

"Once upon a time the friends of Chaos owed many of their conquests to him and wished to reward him; after consulting one other, they came to a conclusion: they observed that Chaos had no sense organs through which he could discern the outside world. So, one day they gave him eyes, another day a nose, and in a week they did the work of transforming him into a being similar to themselves; however, while they were congratulating each other on their success, Chaos died". (Fromm, Suzuki & De Martino, 1960, p. 15)

Regarding Nature, scientists have often behaved like the friends of Chaos, forgetting that at the origin of Life is the *in-formative* patrimony of the collective unconscious and archetypes. However, it is from science that in recent decades a new syncretistic vision has arisen, constituted by the epistemology of complexity, according to which the empirical reality of the world is constituted by a humus of *in-formative* qualities superimposed one on the other to build a real energetic ocean that binds all that exists in a single code.¹

¹The *in-formation* of this energetic ocean is not the information proper to the scientific or lay meaning of the term, nor is it the connections imposed by a pattern on a transcription channel, "but it is the subtle, almost instantaneous, non-evanescent and non-energetic connection between things at different points in time and space. These connections are called "non-local" in the context of natural and "transpersonal" sciences in research on consciousness. In-information connects things (elementary particles, atoms, molecules, organisms, ecological systems, solar systems, galaxies, in addition to the mind and consciousness associated with one or more of these things) regardless of the distance between them and to the time since connections were made between them" (Laszlo, 2007, p. 57). How did you arrive at this conception? In information theory (which deals with the mathematical processing of phenomena related to the measurement and transcription of information in a physical channel of communication), information is a pattern imposed on a transmission channel and mediated by energy. It can be defined as the content of a separate message aimed at commanding the recipient. Information is the inverse of entropy, and the more likely the information, the less it is negentropic. In the case of *in-formation*, quantum exploration has shown that the Source from which the *in-formation* arises is given by a matrix (quantum vacuum) made up of continually fermenting virtual particles, which give rise to the universe manifested via a field of information. Today the fundamental principles of the physical universe are

325

They physicist, David Bohm, emphatically claims that "there is a foundation underlying matter on one side, and underlying the deep layers of the unconscious on the other [...] a single equal substrate which is larger than the two of them". (Bohm, 1980, p. 1)

This *in-formative* energetic ocean becomes tangible in the material events of life and, in human beings, becomes manifest in the body and psyche. The epistemological consequence of this unitary model is the acknowledgement of a continuity of all the phenomena in existence, a sort of single *in-formative* field, from which more or less extensive, individually separated, small islands emerge as if from an ocean, made up of single forms of material life to the consciousness of Man, which would represent the subtlest aspect of this materialization.² How do we approach the study of this complex field of *in-formation*? Given the perspective of unitary research, the most useful way to understand complex phenomena is to build a *network of theories* that allows us to place them accordingly, either within one viewpoint or between one viewpoint and another, depending on the phenomenon to be investigated.³ In fact, complexity does not present itself as a

²By *human consciousness* we mean in this context the *in-formative* potential of the psyche of human beings represented by the archetypal self. The former only constitutes an opportunity for ego to access the "totality of all psychic content not necessarily connected to the ego, *i.e.* its relationship with the ego does not necessarily mean that it is owed the quality of awareness" (Jung, 1921, p. 470).

thought to be describable in terms of vibrational excitations or *in-formative* waveforms that pervade and incorporate the whole manifest universe. To describe the Source of this quantum vacuum, which is actually a tank of floating particles, we use the Akashic Field, a term derived from the Sanskrit akasha, to define the "omnipervasive space" from which all that we perceive derives and to which everything returns. It is understood that the Akashic Field, or A-Field reveals how the universe was *in-formed*, that is, how its form came about. All the material structures of the universe, all its concrete forms are considered entangled excitations of the fundamental state of this cosmic matrix. Systems that appear as objects composed of matter are locally manifested in ordinary space-time, but in reality, they are intrinsically entangled configurations within this matrix. So, *in-formation* is a pre-eminent factor in the appearance and persistence of configurations of structured energy in specific forms. In the absence of *in-formation*, the energies present in the universe would be an accidental set of excitations of the basic state of the A-Field. The in-formation that governs the configurations of structured energy in space-time is holographic in nature. In this perspective, living systems are autonomous in-formed configurations of energy of superior origin that originate in the universe in the presence of favourable physical-chemical environments.

³By *network of theories* we mean the application of a pattern of relationships consisting of the analog information flows of various models of psychotherapy, to the study of man and his vicissitudes. This allows us to amplify our working hypotheses for the benefit of the patient and his discomfort. A network of theories would allow the analogies between the various models to overcome the inevitable determinism of individual models operating in psychosomatic event therapy, in favour of a new integrated concept in line with the paradigms of complexity.

closed theoretical model, governed by precise laws, but as an *open* model that "requires one to think without ever bringing a concept to a close, to crack open closed spheres, to re-establish the joints of the disjointed, to strive to understand multidimensionality, to think with singularity, to never forget integral totality" (Morin, 1985, pp. 49-50).

We can understand from these brief considerations how the challenge of complexity involves the ability to tolerate doubt, ambiguity, the coexistence of opposite terms such as: matter-psyche, body-mind, conscious-unconscious, *etc.*, in the prospect of a unitary vision which includes, in the study of living organisms, not only in the condition of being "living systems", endowed with a specific organization, but above all, of being "living beings", characterized by a specific individuality.

Edelman and Tononi remind us that there exists in nature and in the universe a "hologramatic relationship between the subject and the world, in the sense that each point of the hologram, although unique and original, contains the totality of the information of the whole hologram" (Edelman & Tononi, 2000, pp. 264-265).⁴ In order to achieve this, the most recent scientific discoveries in quantum physics, evolutionary biology, genetics, neuroscience, psychology, cosmology and phenomenology need to find a way to integrate on the basis of the principle of consilience, through encounters and dialogue with different fields of knowledge. (Wilson, 1988).

To this way of thinking, concepts such as that of "implicit or implicate order" (Bohm, 2002) or "autopoietic cognition" (Maturana & Varela, 1980), of "chaotic attractor" (Gleick, 1988), of "philosophy of consciousness" (Bitbol, 2002), of the "Akashic field" (Laszlo, 2007), despite the apparent differences in their respective scientific codes, all point to the current need to rediscover the paradigm of Unity as a solution to the Man-Nature-Universe dilemma in the study of Life. Sigmund Freud's discovery of the personal unconscious needs to be placed alongside different scientific positions hitherto neglected by psychoanalysis, as Robert Bornstein (2001) points out with his "seven deadly sins of psychoanalysis".⁵ Today modern

⁴By *hologram* (literally whole message) we mean an image constructed in a special way such that, illuminated by a laser beam, it seems strangely suspended in a three-dimensional space. The most incredible feature of the hologram is that *any* fragment of it, lit up by a coherent light, presents an image of the *entire* hologram. The information of the Whole is contained in each part, and this allows us to think of the universe as created along the same principles as the hologram, with the consequence that order and unity are spread throughout the universe in a way that escapes our senses.

⁵Robert Bornstein (2001) refers to classical Freudian psychoanalysis, overlooking the supervening evolution of psychoanalytic thought from Freud to today. He claims that the seven sins of psychoanalysis are: *insularity* (self-referential isolation), *inaccuracy* (use of established concepts after they have been contradicted and invalidated by experimental evidence), *indifference* (tendency to ignore results of related disciplines as irrelevant), *irrelevance*

psychoanalysis (Mitchell, 1988) is weighing up studies in *Infant Research*, which consider "mentalisation" as the product of synchronisation between children and their caregivers (Stern, 1998), and in neuroscience (Schore & Schore, 2011) of which neuropsychoanalysis represents its most recent accomplishment, and on Jungian analytical psychology and quantum physics (Frigoli, 2016).

Despite these efforts Freudian psychoanalysis has been criticized on several fronts. Based on the model of personal unconscious, Freudian psychoanalysis is unable to access the conclusions that emerge from evolutionary biology and quantum physics because its unconscious model is too reductive to measure up to a comparison with these sciences of complexity, with the result that psychoanalysis is considered more a set of metaphors than a science of the psyche (Wittgenstein, 1967).

Today, in view of these considerations, two principles are considered the essential building blocks for the construction of a new psychodynamic psychology:

i) The principle of relational totality Humankind-Psyche-Universe;

ii) The principle of *in-formative* energetics (Frigoli, 2016).

These theoretical foundations are the same as those substantiated in the studies of quantum mechanics (Bohm, 2002) which maintains that there is an "implicate order" in the universe, a sort of "intelligent energy" which like an *in-formative* flow gives substance to everything that exists materially ("explicit order"), including human beings themselves and thought. According to the well-known Bohm metaphor and validated by a whole series of quantum studies, reality is nothing more than a gigantic hologram that changes continuously through a "holomovement" to which our Central Nervous System is connected thanks to its ability to decode the *in-formative* "frequency beams" from the five senses.

Evolutionary biology, in considering that every living form has an identical pattern, namely that of responding to the laws of "autopoiesis" and "cognition", specifies a very important theoretical-practical consequence: the mind is inherent in matter at every level in which life manifests itself, and in the case of human beings even in cells, organs and systems, apart from the Central Nervous System (Maturana & Varela, 1984). In this complexity perspective, the mind is no longer linked to the activity of the brain, because the brain is only the final moment in the synthesis of more peripheral processes located deep in our bodies, consisting of a proto-consciousness defined as "cognition". These peripheral cognition processes could be assimilated on a

⁽the progressive withdrawal from the major problems of psychiatry and society), *inefficiency* (use of abstruse theories and idiosyncratic constructs), *indeterminacy* (the lack of precision and operativity of many key constructs), *insolence* (habit of looking at other theories with a strong sense of superiority and sometimes arrogance).

bodily level to the psychic concept of the "collective unconscious" studied by Jungian analytical psychology (Frigoli, 2013, p. 39).

Even the well-known neuroscientist, Joseph Le Doux, confidently says, "What are unconscious processes? In actual fact they include everything the brain does, from maintaining heart rate, respiratory rhythm, stomach contractions, posture, to the control of various aspects of sight, smell, action, feeling, speaking, thinking, evaluating, judging, seeing and imagining" (Le Doux, 2002, p. 17). In this perspective, the brain, with the brain stem, the limbic system and the neo-cortical regions, modulates all the "cognition" of the cells and organs in an overall picture that leads to the assertion that all mental activity, constituted by rational thinking, logic and abstraction depends, in fact, not only on the brain but on the whole body.

At this point another question arises: To what extent do human experiences depend on genetic activity? Genes have two fundamental functions: the first concerns the transmission of DNA information to subsequent generations, the second is to determine through processes of "transcription" which proteins will be synthesized at a cellular level (Kandel, 1998, p. 103). "Our experiences" says Daniel Siegel "can directly influence transcription and, therefore, the way in which genes are expressed through protein synthesis" (Siegel, 1999, p. 18), with a possible final effect on the development of neuronal circuits, through the formation of new synaptic connections or a modification of existing ones. Thus, it is possible to argue that gene expression, the mind's activity, the individual's behaviour and continuous interaction with the environment, demarcate a unitary field responsible for the development process of each individual.

The importance of these "epigenetic factors" - that is the set of regulatory processes of genetic expression that *direct* and *orchestrate* the synthesis and coding of information contained in the genes - represents the individuals' totally subjective and individual, albeit unconscious interpretation of what the environment, ancestors and parents have transmitted to them.

On the basis of these general considerations, if there is no separation between interpersonal relationships in their ability to modulate the development of brain structures (Ego-axis), and the complex influence of the environment in the conditioning of gene expressivity, we need to postulate the presence of a completely new "information field" able to integrate the study of "mentalisation" (Fonagy 2001). The term here refers to the subjective experience of mutual "tuning" between parent and child, with a trans-personal *in-formative* code, expressed by genes at the bodily level, and by the collective unconscious on the psychic level (archetypal Self-axis).⁶

⁶This new subjective and trans-personal *in-formative* field is explained by ecobiopsychology as an effect of the action of the archetype of the psychosomatic self. Unlike the

The collective unconscious level and the genetic system go back further than the ego and are not dependent on the primary relationships studied in *Infant Research* and attachment models. They refer to a phylogenetic history connected to the processes of the evolution of the organism. This complex field cannot be described in linear terms because it involves multiple information levels at the same time: from the individual to the trans-individual of the collective unconscious, from the body and its relations with the internal environment (the physiological processes of DNA) and with the external environment and its dynamisms (Frigoli, 2013, pp. 34-39).

In the perspective of the relativistic *continuum* of space-time explored by modern physics, the collective unconscious corresponds to the reality that Jungian analytical psychology explores introspectively as the "psychic field", and which atomic physics describes from the outside as "material reality". In this regard, Jung did not hesitate to reiterate "that he has no objection if people wish to consider the psyche a quality of matter and matter as a concrete aspect of the psyche, provided that by psyche we mean the collective unconscious" (von Franz, 1988, p. 34). From these brief considerations we can say that the relationship between the personal unconscious and the collective unconscious involves a difference in information fields; in the case of the personal unconscious the field is determined by classic, three-dimensional space-time which is responsible for the construction of

Jungian Self which is considered the ordering factor only of psychic images, the psychosomatic Self summarizes in a coherent and synchronic way the *in-formative* continuum between the functioning of the organs, the apparatuses of the human body with their phylogenetic process, and corresponding psychic images expressions of archetypal activity. When this connection is established, the emotions, which Damasio considers to be automatic and innate responses of the body (somatic marker), manage to produce feelings and images as mental representations in the limbic system of the somatic state of the organism; later, through the associative cortex, which integrates the images and feelings, they are given the appropriate formulation in thoughts and words corresponding to the specificity of the emotional contents. Therefore, between body, emotions, feelings, images and words a continuous interactive game is created that allows consciousness to offer us an elaborate sense of the subjective self and to place ourselves in a precise point of historical time, with full awareness of the past lived and the future foreseen, and with a deep understanding of the world that is a part of us. Then when we are faced with patients with a serious pathology, the statements that emerge in the context of therapy should not only be configured as an expression of the traumas of our ego, but sink into the field of our phylogenetic origin. An anorexic patient weighing 31 kg, e.g., on the threshold of survival, claimed to want to feed only on water, light and mineral salts, and so walked in the winter in the park avoiding the shadows of the branches of the trees projected onto the earth. Those words that would usually be interpreted as expressions of a narcissistic omnipotence relating to a fragmented body self, actually represented the emergence in the patient of the phylogenetic dimension of plant life, which as we know through the CO₂ of air, water and chlorophyll photosynthesis, determines the growth of arboreal life (Frigoli, 2013, pp. 107-126).

ordinary consciousness; in the case of the collective unconscious, the field concerns the synchronic level of human experience in relation to the arche-typal Self.

The archetypal dimension of human experience

Unlike Freud who always sought a connection with neurophysiology, endocrinology and biological processes generally, Carl Gustav Jung from the start rejected a connection between the unconscious and bodily processes, not because he did not believe in this relationship but because he was convinced that psychic phenomena ought to be examined *per se* before establishing bridges of connection with somatic processes.

Only when science was able to research the relationship between psyche and body, would it be possible - according to Jung - to arrive at a non-arbitrary synthesis of their relationship. For Jung, the psyche consists of: i) firstly, the content of the conscious - which he assimilated to the ego complex; ii) secondly, the content of the personal unconscious, the psychically unknown, which, when it crosses the threshold of consciousness appears similar to the content of the conscious; iii) thirdly, the content of the collective unconscious, *i.e.* the absolutely unknown, which has never drawn from consciousness and which does not owe its existence to human experience. The personal unconscious consists mainly of "complexes" composed of a mass of representations in a single affective tonality, while the content of the collective unconscious is essentially formed by archetypes, which are innate dispositions or psychic structures that are reproduced in representations, fantastic thoughts, emotions and motifs, present always and everywhere, in all areas of humanity. Jungian archetypes have often been compared to Platonic ideas, but while the Platonic idea is pure content of thought, the archetype is expressed also as feeling, emotion or mythological fantasy, and therefore has a broader application as a concept than the Platonic idea (Jung, 1946).

Archetypes themselves are absolutely unobservable structures. Only when they are stimulated by internal or external needs do they produce in crucial moments an image, a fantasy, a thought or an experience recognized as "archetypal" because similar in every peoples or civilization. Archetypes, says Jaffè (1988), could "possibly be compared to the axial system of a crystal, which in a sense pre-forms crystallization in the mother water without having a material existence in itself. The latter appears only in the way in which the ions or molecules aggregate. The archetype in itself is an empty, formal element, nothing more than a *facultas preformandi*, a possibility of representation *a priori*. The representations are not inherited but are forms which in this case correspond exactly to instincts also formally determined. The existence of instinct cannot be proven, just as that of archetypes *per se* cannot, until they actually become manifest" (Jaffè, 1988, p. 468).

Archetypes are inherited psychic structures, while archetypal images are speckled with the expressive potential of the archetype as well as with the social and cultural environment that determines their formal structure. The archetype itself is not perceptible but when it actualises, it presents itself as an image or representation that enters the field of consciousness directing the functioning of its psychic faculties. Therefore, the collective unconscious is considered by Jung (1938/1954) a sort of "atmosphere" in which we are immersed, rather than an entity found only "within us". Archetypes represent the most hidden aspect of our personality and are condensed into certain archetypal images, rich in symbols, as they appear in myths and religions, but also in the dreams and fantasies of normal people or the psychically distressed.

Jung (1947/1954) says that archetypes are the mental representation of instinct, and just as instinct shows its *autonomy* by imposing itself on the behaviour of a living species and conditioning its expression, so the archetype proves its autonomy by conditioning observable psychic reality. Jung summarized the relationship between archetypes and their related psychic images in the following image of light and its luminous spectrum (Figure 1).

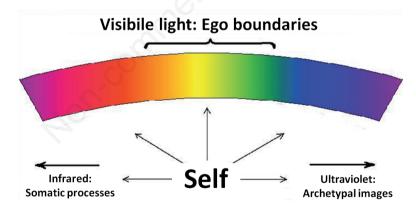


Figure 1. Relationship between archetypes and their related psychic images (Jung, 1947/1954).

The Jungian approach shown in this diagram defines the sphere of psychic life in "infrared" poles, where psychic life is translated into somatic processes, and in "ultraviolet" poles, where images, representations, and archetypal motifs are collocated. This approach still inclines towards separation, typical of the culture of the time which is unable to conceive of psychic life as intertwined with matter. As mentioned above, today, thanks to evolutionary biology, with the concept of "cognition" we recognise the existence of a primordial psychic state with a connection to the matter of living forms, just as the most advanced studies of quantum physics recognise in archetypal images their "material" *in-formative* base through the prerogative of their bodily origin.

These considerations introduce the hypothesis that the archetype is not only a factor for psychic image ordering - as Jung claimed - but that it possesses its own corporeal organisational capacity. This organisational capacity means that between physical events and corresponding psychic images an "in-formative continuum" is structured specific to this contemporaneity. The study of this *continuum*, whose theoretical-practical validity is not under discussion - current biological and physical sciences seem to have accepted it as the cornerstone of their development - may be represented by the Jungian analogy of the light spectrum, amplifying its meaning relative to the ego complex. In this IR/UV example (see previous figure) the visible band of light corresponds to the ego complex and the domain of its relationships, and the infrared pole corresponds to strictly bodily relationships (instincts, dynamisms of evolutionary phylogeny), while the ultraviolet pole corresponds to the world of imaginary and archetypal images. If, as Jung reminds us, "the dynamic of instincts is localized, as it were, in the infrared part of the spectrum (ande) the instinctual image is in the ultraviolet part" (Jung, 1947/1954, p. 206), the possibility of dynamically and coherently integrating their correspondence will determine the generation of a psychic field whose awareness will be constituted by a circular thought process capable of making consciousness pass from the imaginative to the instinctual level and vice versa.

Thus, the innovative proposal of ecobiopsychology (Frigoli, 2016), a term which draws attention to the significant *in-formative* unity of Nature and Humankind, consistent with the epistemology of complexity. The nature and evolution of living forms (eco) is sedimented in our DNA (bios) and reawakens to consciousness in psychic images as phenomena interconnected with the body. Eco-psychobiology, in this perspective, may be considered a holistic approach to our bodies and psyche within the *in-formative* hierarchy of energy and structured matter which enables us to view the world differently.

For example, we know that living forms evolved from the primordial sea as evidenced by blood plasma which biologists recognise as having the same chemical composition. In cases of urgent psychological transformation, the images that most eloquently express this are the diving into or emerging from the sea. Where do these images come from if not from bodily memories sedimented in our DNA, where all the evolutive stages are found; from the cradle of the primordial sea to the development of the forms of phylogenesis? The psychic field of relations between the human body and its evolutionary history set against psychic images consistent with the bodily phenomena investigated, designates an organisational centrality called the psychosomatic Self, which suggests that an archetypal dimension is working on both the bodily and the psychic plane.

Given these theoretical premises, ecobiopsychology will study the human body, its physiology and its pathology not only in their prerogative of a corporeality which is subjectively different for each human being (*Leib*), but above all, in the somewhat altered archetypal role of their relationship with the Self. In this new interpretation, somatisation and the fundamental questions in *mainstream* psychology, like trauma, dissociation, memory, and language are approached from a different perspective: the expression of the body's history and its relationship with the archetype, and not just the expression of more or less Dissociative Internal Operative Models, as remembered memories stored deep in our synaptic circuits (Lakoff & Johnson, 1999).

We know that the personal unconscious is supported by principles of generalisation and symmetry (Matte Blanco, 1981), while the collective unconscious responds to criteria of analogical and symbolic thought as part of the logic of synchronicity. The relationship between the personal and collective unconscious is the same as that between the logic of the principle of generalisation and symmetry and the logic of symbol and analogy. 'Symbol' (*symbolon* from the Greek *symballein*) according to the renewed hermeneutic meaning described by Gilbert Durand (1977) and 'analogy' indicate the ability to "hold together" the conscious sense (*Sinn*) which gives designated objects precise importance, and the raw material (*Bild*-image) which springs from the ancestral depths of the unconscious. Therefore, we can say that they integrate and complete in a more precise conceptual framework, the informative logic of the unconscious described by Matte Blanco's (1981) principle of generalisation and symmetry.

Analogic and symbolic thought, in combining the most diverse elements in one unitary description, performs the function of mediation between the irrational power of the unconscious and its manifest "sense" as understood by consciousness (Alleau, 1976). What happens when the symbolic approach is applied to the somatisations of a clinical case? What transformation takes place when the latter is viewed in its quality of "existential synthesis" determined by the Self-axis, guided by the principle of synchronicity towards its own project formulation dictated by the principle of individuation? (Frigoli, 2007).

In this open-minded perspective, the therapist needs to integrate the different levels of human experience: the sub-symbolic universe dear to neurosciences, the non-verbal symbolism of psychic images, and the verbal symbolism of language (Bucci, 1997) to find that informative "coherence" which is the expression of archetypal activity. Only understanding these stages will enable us to prepare the foundations of a new epistemological framework in which mind, body and nature are part of a single unitary field, and so trust in a less and less "topographic" and more and more "holographic vision of a world". Take this example: when muscle tension migranes in early childhood are accompanied by neurovegetative symptoms like photophobia, lacrimation, nausea and often vomiting, and the family atmosphere is dominated by some explicit hostility and aggressivity, the ecobiopsychology therapist will note that: i) the emotions and traumatising attachments have been somatised into hostile fantasies continually replayed in the psyche; ii) this obsessive replaying has involved the frontal area of the head, the location of the frontal poles of the brain where, as we know, thought processing takes place; iii) alongside hostile nuclei these patients are deeply anxious due to feelings of guilt about denial or repression of aggressivity and this feeling is expressed in lacrimation; iv) to highlight the denial or repression of emotion photophobia is interpreted as difficulty accepting the reality of the unconscious conflict; v) nausea and possible vomiting will be the primary expression of an archaic refusal, an inability to tolerate hostile fantasies.

In this complex picture, some aspects of somatisation, for example, the theme of conflict and its representations, may profitably be explored using post-Freudian psychology, and others using archetypal psychology, such as the unconscious choice of the head to represent the node of "emotion" and "awareness" - archetypically in the phylogenetic path the head was *constructed* as the seat of awareness.

In the case of muscle tension migraines, if the denied or repressed fantasies relate generally to aggressivity unconsciously experienced as dangerous on an explicitly enacted level, the therapist needs to thoroughly understand these clinical cases by exploring the metaphors these patients use to describe their distress. The way the headache is described is revealing: it may be described as "burning pain" or "as constricting as a vice" or "a piercing sensation like being pricked by hundreds of pins" or like "an unbearable weight pressing down on me" *etc.* The choice of terms comes from deep in the unconscious and reveals different emotions. Each one has an analogical meaning which harks back to a specific trauma.

Today, neuroscience tells us that our imagination has its origins in the depths of the body's emotions. Sentiments and images are represented in the limbic system of the brain, and subsequently become *words* in the prefrontal cortex (Damasio, 2010). Knowledge through images is therefore an empathic type of knowledge and more primitive than conceptual knowledge. It is organized ontogenetically and phylogenetically through the right hemisphere, which matures before the left hemisphere, thanks to its connections with the primitive centres of the brain stem and limbic system.

McGilchrist (2009) shows that the right hemisphere tends to see things as whole, and sees them in contexts with other things through the construction of total *gestalt* or information networks. Preferring novelty and uncertainty, it has a predilection for metaphor over literal meaning, and its interpretation of the world is mediated by empathy, analogy and symbols rather than literal specification of definitions. We can say that the right hemisphere is more interested in the non-literal and "connotative" meaning compared to the left hemisphere which specializes in the "denotative" language of the sciences.

It is with analogy and symbols that ecobiopsychology deals with the clinical history of patients, their traumatic vicissitudes, somatisations, life events, dreams, behaviours and habits, trying to build a coherent field based on the importance of the Self archetype as an ordering factor for corporeal events and psychic images. Looked at in this way, alexithymia takes on a new meaning of traumatic dissociation, expression of the separation of mental processes and the relative disconnections of the brain's integrative functions, in the right hemisphere in particular.

In the course of more complex somatisations such as those concerning autoimmune diseases or even tumors, there may be evidence of a *collapse* of immunity and consequent inability to distinguish *self* from *non-self*. This is equivalent to the identical collapse of ego barriers which entails autonomous cell functioning, and an inability to maintain a relationship with the other cells. Moreover, it has an anaerobic regressive metabolism different from the more advanced aerobic one which has an invasive, destructive tendency towards "intersubjective" relationships with the other cells of the body.

In this context the biological model proposed by the Self archetype is the psychological model of a narcissistic type unable to accept a shared relationship with the cellular universe (Biava, Frigoli & Laszlo, 2014, pp. 133-149).

Obviously, these considerations induce the therapist to explore the original causes of this dissociation by looking for them where they can be traced, *i.e.* in the personal and trans-personal history of the patient. Once the therapist is able to deal with this interpretation of the patient's history, where the Ego-axis intersects with the Self-axis, it becomes easier to access the patient's right hemisphere allowing faster repair of dissociated MOI-Ds which enable the left hemisphere to be understood. This happens because the power of analogy orients the field of the mind gathering the scattered elements within a coherent frame of reference. In this regard, the philosopher Ezio Melandri, a scholar of the mental operativity of analogical thought, affirms that "analogy borders to the south with Theme, to the north with Dialectic, and lies in the center between the Western border with Science, and the astern border with Art, in an internal struggle with logic" (Melandri, 2004, p. 3). The circular and divergent progression of its discourse incorporates the linear path of logical thinking of the left cerebral hemisphere, determining a new awareness which is closer to the expressivity of the archetype.

Analogy, as the backbone of symbols, performs the function of "binding together" the phenomena present in thought, transforming bodily emotions

into images and images into ideas. This may be the most valuable instrument we have to access the archetypal field uniting Humankind to Nature (Frigoli, 2016). When analogy is able to reflect the phenomenon of the evolution of the natural world, it may become "vital", in the sense of being conveyor of the correlation of systemic networks in life processes. Symbols can then make the networks accessible to the Ego through the "transcendent function" of the connection of opposites in the unconscious. (Frigoli, 2016).

As mentioned above, clinically, a patient's history, somatisation disorders, emotional vicissitudes, dreams and products of the imagination, all belong to a complex field created by the Self-axis. For example, if we correlate the analogy in the hair of a woman suffering from alopecia, the flow of her depressive thoughts, the motion of the waves in her dreams, the flow of her tears, and the loss of her hair, to the somatic equivalent of her "to lose" thoughts, these seemingly separate aspects are joined by an identical analogical interpretative rhythm, and become much more than a correlation of obscure images. Symbols and analogy enable us to recognize the infrared aspect of the body in some of the images, and in others, images equivalent to the ultraviolet of the psyche, consistent with those of the body.

Trauma and dissociation will then take on the concrete form of an identical message expressed through the simultaneous involvement of the two cerebral hemispheres. Both hemispheres are involved in all mental and physical processes, and each makes its own absolutely essential contribution to an understanding of the totality of our experience.

Given these premises, in an intersubjective encounter with a patient the modern therapist will allow himself to try out new attitudes and emotional styles which can then be represented in new constructs accessible to language, aimed at repairing what the patient has experienced as unbearable and unspeakable. It is necessary to give the sub-symbolic universe of the body an opportunity to express itself in the universe of the symbolic nonverbal of images, in the symbolic verbal of the language, and to find among these different levels of human experience the *in-formative* coherence which is the expression of archetypal activity.

Only with a knowledge of these stages can the psychotherapist build the foundations for a new epistemological framework where mind, body and nature belong to the single *in-formative* field described in quantum physics as the *Akashic Field*. Therapy sessions between therapist and patient must be right brain to right brain. This is the only way that the patient's anti-totality defences may be broken down. The brain's plasticity enables this less through the technical dictionary than through the therapist's metaphors, analogies and symbols – these being the only way to repair the patient's implicit experiences dissociated from trauma.

The relationship is therefore the cornerstone of psychotherapy on condition that it does not limit itself to exploring the Ego complex, but aspires to focusing on dissociative states of the Self, reflecting on the tempestuous emotions generated when the soul confronts the history of the body, until the connections between affection and images and between present and past are re-established. Only in this way will it be possible for the Ego to no longer feel alien to the commands of the Self.

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