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Review

A bio-psycho-social model of psychotherapy

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The bio-psycho-social model relates to a person as one system, with biological, psychological and social components in constant interaction. The model so far tends to objectivize the human experience of life and ignores a central component, existing exclusively in humankind, that is, the subjective component of meanings, narratives, images, and dreams, which is the main focus of psychology. This article proposes a two-layer bio-psycho-social model: an objective-rational layer and a metaphorical-spiritual layer, which contributes to the understanding of the way psychotherapy, and in particular how narrative and metaphor psychotherapyis, is associated to a person's objective life. The model is based on the assumption that people process and understand their experiences in two complementary ways: an objective-rational way typically associated with Freud's "secondary" thoughts and with the left hemisphere of the brain, and a metaphorical-spiritual way, typically associated with Freud's "primary" thoughts and with the right hemisphere. Every medical, psychological, or social intervention, whether tending to use objective or metaphorical devices, will eventually activate both layers - the entire system.

Key words: Bio-psycho-social, psychosomatic, dream, psychotherapy, integrative, metaphor, narrative, hemisphere.

INTRODUCTION

In the wake of René Descartes' dualist philosophy (Schneider and Tarhis, 1975), western scientific thinking went in a reductive direction, perceiving the human experience as an aggregation of measurable components. This eventually brought about the division of the human experience into three main components: a biological, psychological, and social component, and consequently also to a separation of the various disciplines, concerned with human beings.

The prevailed scientific research approach is based on reductionism which typically neutralizes variables and examines connections between dependent and independent variables chosen by the researcher; this accumulated a great and important deal of knowledge, but led to mixed results. Those using the reductive approach relate such results to differences in methodology, chosen by researchers. From the systemic perspective, the mixed results stem directly from reductionism per se, since it attempts to examine specific variables as though they were not part of a system (Dwairy, 2006, 2009). From a systemic perspective, the relationship between variable A and variable B always depends on the presence or absence of many other variables in the system, hence the mixed results of reductive research.

Bronfenbrenner (1979) proposed a multi-layer, bioecological system theory that emphasizes the interactions between a person and her environment, culture, and global factors. Engel (1977) suggested a bio-psycho-social model to highlight the psychological and social factors in people's health. These models helped to fill the gaps of the reductive approach and promoted our understanding of human experience (Dwairy, 1997; Schwartz, 1982). According to the bio-psycho-social model, every experience has three aspects: a state of depression, for instance, can be seen as a physical state described in terms of hormones, transmitters, and other chemical substances; a psychological state that can be described in terms of repression, negative thinking, or a lack of ego strength; and it may be seen as a social situation featuring oppression, neglect, and trauma.

Despite the systemic type of the bio-psycho-social model, it still tends to objectivization (Featherstone, 1992), and is to some extent still subject to the hegemony

of the reductive scientific perspective. While trying to bring the biological, psychological, and social factors together, it continues to view them as separate and independent spheres that may or may not interact (Davidson, and Strauss, 1995). It suggests dealing with components of the system as measurable objectively by means of specific variables. According to this model, the psychological factors too can be assessed by means of observations, questionnaires, or psychological tests.

For a bio-psycho-social approach to be really systemic, it should consider the connections between the components as interacting, dynamic, multidirectional, and lasting within one whole system. Thus every change in one of the components leads to changes in the others. For instance, negative thinking and pessimism can bring about changes in the nervous, endocrine, and immune system, and also changes in the relations with other people, with the system moving towards depression. From a systemic perspective, the reductive approach, seeking simple linear causal connections, exists merely in the mind of the researchers, not in the world of nature, nor in people's lives (Dwairy, 2006).

PSYCHOLOGY AND PSYCHOTHERAPY

The reductive approach also characterizes the disciplines, and has led to the development of extreme specialization in the field of medicine, psychology, and the social sciences, and to theories attempting to explain complex phenomena and treat them, while focusing on one main factor. In psychology, for instance, depression may be explained via the psychodynamic approach as linked to repressed contents, and consequently the treatment focuses on bringing these contents up from the unconscious to the conscious mind; or according to the cognitive approach, focusing on changing a person's irrational or dysfunctional thoughts, or according to the behavioral approach, reinforcing different behaviors; or according to a humanist-existential approach, it creates for the clients an ambience of acceptance to enable them achieve self-actualization.

Despite the knowledge that each psychological approach has contributed, still these approaches resemble the five blind men in the classical story, who encountered an elephant. Each of them described it based on the elephant's part he touched and was, of course unaware of the other parts the others touched. In order to understand a human being (elephant), we need to combine all the psychological perspectives and see them as complementing each other, rather than competing with each other.

From a systemic perspective, any type of psychotherapy, even if it focuses on a single psychological factor, eventually brings about changes in all the elements within the mind. For instance, the influence of behaviorist treatment will not be limited to patterns of behavior, but in the course of the treatment will bring about changes in consciousness, patterns of thinking, self-image, and self-actualization. Likewise, psychodynamic, cognitive, or humanist treatment will also affect other components, even without the intervention being aimed at them. Changes in the mind's system will be no doubt accompanied by changes in the physical sphere and also the interpersonal one (Dwairy, 1997; Engel, 1977; Scwartz, 1982).

Many attempts have been made to integrate the different psychological approaches in a more integrative approach. Dollard and Miller (1950) made one of the first attempts to recast psychodynamic and client-centered therapies in behavioral and cognitive mediated learning terms. Wachtel (1977, 1991) and Stricker and Gold (1993, 1996) continued integrating psychodynamic, cognitive, and behavioral psychotherapies in one integrative approach. Systemic eclecticism today prevails in psychotherapy.

Subjective human experience

In addition to the reductive type of a bio-psycho-social model, there is still another obstacle facing its application to psychology and psychotherapy: its objectivization (Featherstone, 1992), and neglect of the subjective human experience essential in the social sciences, the humanities, and the arts. It is impossible to understand the universe and human experience without taking into account the subjective component of the imagination and spirituality. Wars have been fought causing the death of millions of people, destroying and creating empires, cities and villages – wars stemming from religious beliefs and ideologies. Most of the religions, including the monotheistic ones, are anchored in visions. Ignoring the subjective world is non-objective per se. Therefore, a model that purports to explain the human experience cannot implement objective reductionism; it has to relate to the subjective world.

Objective bio-psycho-social events are not directly analogous to the subjective bio-psycho-social ones (Crossley, 2000). For instance, the objective state of the body is not necessarily comparable to the subjective image of the body and its state. Similarly, the objective situation within a family does not necessarily correspond to the image of the family, or to the meaning or the narrative in a family member's mind. Nor is our inner life usually reflected objectively in our conscious mind or in objective variables, owing to the activity of various defense mechanisms and processes of attributing meaning and various symbolic and metaphorical representations.

Apart from the behavioral approach, the subjective experience as a personal creation was the basis for all other psychological theories. Many of them analyzed how the interpersonal relationship with significant others may correspond to the subjective experience. Object relations theory may have contributed the most to this analysis by

offering many basic terms such as internalized objects, separation-individuation, split, transitional object, potential space, transference, and projective identification (Klien, 1952, 1969; Ogden, 1993; Winnicot, 1971), which explain how objective and subjective experiences correspond to each other.

Psychodynamic, humanistic, existentialist, narrative, and cognitive psychotherapies address the subjective experience of the client. All of them are based on the notion that our experiences in life are processed subjectively on different levels and in different ways. Imagination, fantasies, and dreams are major processes. They are internal communications between different aspects of the human self. Dream analysis assists in imbuing primary processes that are symbolic and metaphoric, with a reasonable meaning (Ogden, 1993). Shahar (2010) explains that a clinical encounter is expressed via three languages: pragmatics (everyday occurrence in the world), poetics (captures the enormity of the human situation), and schematics (the language of hypothesis and reasoning). Many other attempts have been made to explain in what way the objective and subjective experiences correspond with each other.

BIO-PSYCHO-SOCIAL MODEL AND PSYCHOTHERAPY

The bio-psycho-social model, which stems from conventional medicine, and psychotherapeutic approaches are able to contribute to each other through an integrated model.

The biological and social aspects of human experience did not receive enough attention in psychotherapeutic approaches. Biology is conceived mainly as a "springboard" to subjective experience. The main biological aspect, addressed in psychodynamic therapies, was the instincts. This aspect was expressed mainly by the term Id, represented symbolically in primary thoughts and in fantasies, wishes, and dreams (Freud, 1952). Integrating psychotherapeutic models with a bio-psycho-social model may give biology its deserved status and assist us in understanding the systemic interactions between these components.

The interweaving representation of interpersonal relationships in the conscious and unconscious mind, addressed in many psychological approaches such as internalized objects, potential space, transference, and projective identification, may enrich the bio-psycho-social model. Many other psychological perspectives such as "relational psychoanalysis", which have contributed a great deal to the understanding of the unconscious, reciprocal, subjective experience of both therapist and client (Gold and Stricker, 2001; Mitchell, 1988), may help expand the bio-psycho-social model.

This lack, explained above, leads scholars such as Davidson and Strauss (1995) to consider the bio-psycho-social model as a transitional one that needs to focus more on subjective experience, on meaning, and on what they call a "life context". In order to understand disorders and a healthy state, they propose to combine two approaches: the objective-descriptive and subjective-descriptive approach.

Subjective human experiences such as perception, meaning, creativity, art, imagination or dreams, and psychotherapies that deal with the phenomenological world, including images, symbols, meanings, and narratives (Polkinghorne, 1988), could not solely be a component of a reductive and objective bio-psycho-social model. These psychological aspects are parts of the biological and social aspects too; this study's subjective experience includes both aspects. Therefore, the bio-psycho-social model needs to be extended to include the bio-psycho-social subjective facets of people's life.

THE TWO-LAYERED BIO-PSYCHO-SOCIAL MODEL

Based on the notion that the bio-psycho-social experience discussed in this study is an integrative and systemic one and has objective and subjective facets, this article presents a two-layered bio-psycho-social model (an objective-rational level and a metaphorical-spiritual level), while on each level there are physical, psychological and inter-personal components processed on each level in different ways (Figure 1).

The processing on the objective-rational level (the lower part of the figure) is scientific, based on measurable variables of the bio-psycho-social experience, while the processing on the metaphorical-spiritual level (the upper part of the figure) is subjective of a global, integrative, and creative nature, using metaphorical and symbolical representations, appearing in the form of images, narratives, or dreams. This division into two bio-psycho-social layers corresponds to the division made by Freud and others into primary thinking (dominant mostly in dreams) and secondary thinking (dominant mostly during the day). It also corresponds to the division and to the connection between the two sides of the brain, the left side hemisphere being more analytical, linguistic, sequential, and logical, and the right side hemisphere more visual, global, and creative (Ley and Freeman, 1984; Tortora and Grabowski, 2000). The two layers of the model, similarly to the two hemispheres of the brain, are components of the same system, act in different ways, but complement in an integrated way the processing of the human experience.

The division of the model into two bio-psycho-social layers makes it applicable to the creative world of humankind and enables us to understand that a single human experience, such as a war trauma, can be processed by those who subscribe to objectivity, for instance doctors, sociologists, politicians, economists, and other researchers, and can be processed differently by creative people, as Pablo Picasso did in his painting Guernica, or by means of their dreams by those who

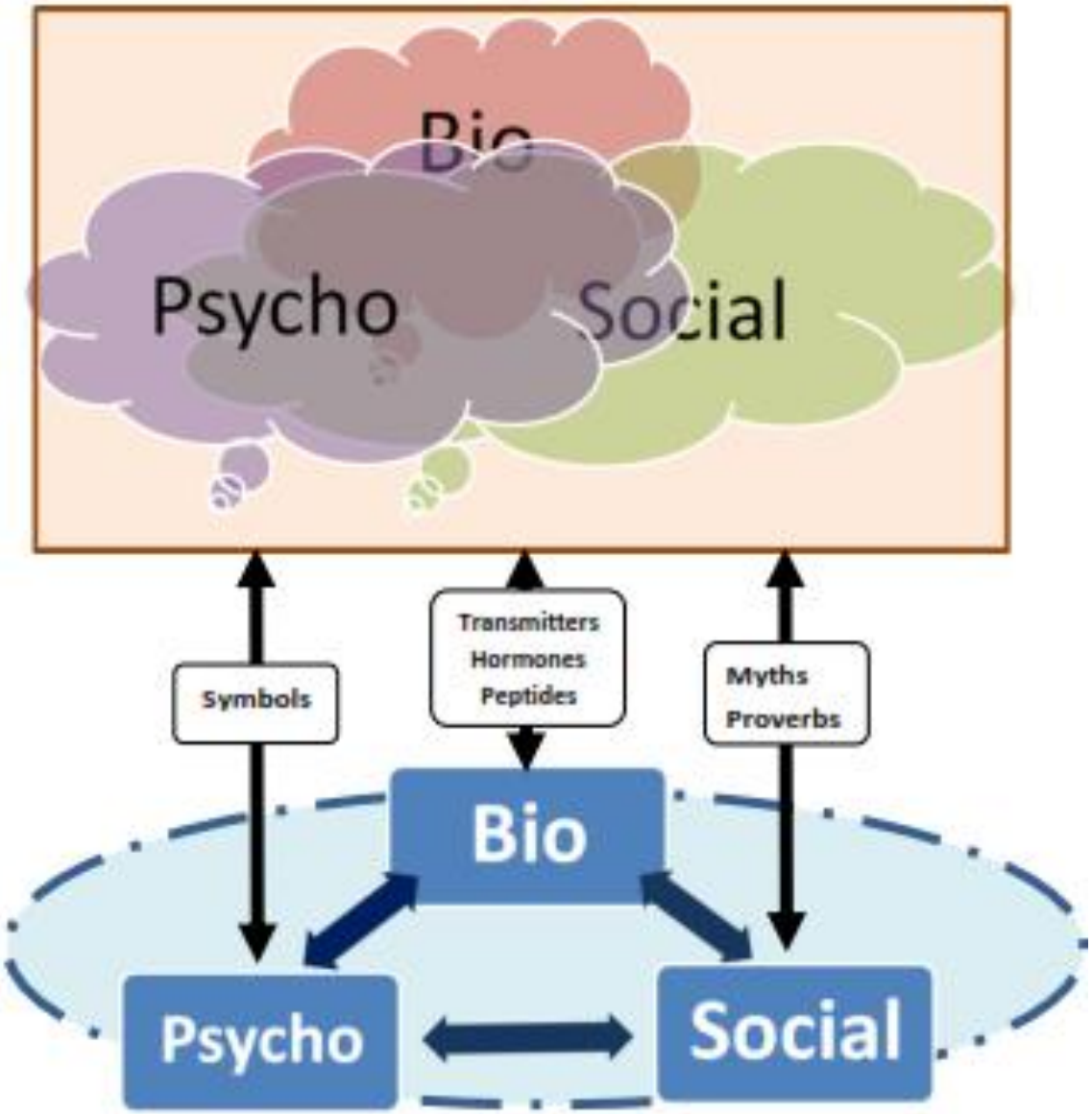

Figure 1. A two-layer bio-psycho-social model of psychotherapy. The lower part shows the objective-rational layer and the upper part shows the metaphoric-spiritual layer.

experienced the war. The two-layer model in fact adds another level to the previous one, and thus helps us understand the connection between two types of processing of the same personal experience, and also to understand the two levels of the theory and intervention used by professionals. Thus, for instance, a specific stress, such as loss, can be processed by a person who experienced the loss in an objective-rational way or a metaphorical-spiritual way, and often in both ways simultaneously. Also different professionals may understand the trauma and intervene on an objective-rational level, as doctors, social workers, lawyers usually do, or on a metaphorical-spiritual level, mostly preferred by psychotherapists and those using the imagination and art, or spiritual healers.

The connections between the two ways of processing of reality

The two-layered model, contrary to the prevalent opinion, demonstrates that the representation and processing of the experience by means of images, metaphors, narratives or dreams are not disconnected from the objective bio-psycho-social reality. They are connected to it via various bi-directional paths (Figure 1). Ornstein and Sobel (1987) maintain that the brain does not distinguish between imagination and real experience. The images undergo a classical conditioning, connecting them to their

biological basis, and thus they trigger the same biological system (Schwartz, 1982, 1984, 1989). For instance, an image of a lemon in the mouth stimulates saliva glands and sometimes brings about emotional and behavioral reactions. Every meaningful image appearing in the brain's cortex activates all the levels of the limbic, autonomic, endocrine, and immune systems. Many researchers believe that meaningful images activate all the mental systems, including the unconscious ones, and even memories encoded at the pre-verbal stage (Sheikh and Panagiotou, 1975; Bettleheim, 1984). In the words of Freud (1923: 14), "thinking in pictures …stands nearer to unconscious processes than does thinking in words, and it is unquestionably older both ontologically and phylogenetically".

Thus, meaningful images, connected to a sad event, such as the loss of a beloved person, created in the metaphorical-spiritual layer, can arouse reactions in the objective-rational layer and bring about physical reactions such as weeping, changes in heart beat and breathing, emotional reactions such as sorrow, longing, and maybe guilt, and they can lead to interpersonal behavior such as turning to friends, and maybe organizing a memorial gathering (Dwairy, 1997). The physical, psychological, and inter-personal reactions to images usually also occur when the images are not directly connected to personal memories, such as reactions that can occur while watching a film.

As explained above, the connections between the images and the objective bio-psycho-social layer are bi-directional, therefore an objective state, such as physical disease, can be reflected on a metaphorical level by means of a physical, psychological, and inter-personal image. For instance, one sick person may concretize his/her state in a drawing of a debilitated body, sad and lonely, while another sick person, in a similar medical state, may represent it as an enthusiastic fighter, supported by his/her family. An objective state of quarreling or abuse may be reflected in a subjective metaphorical way in various physical, emotional and inter-personal images.

Biology explains the bi-directional links between the metaphorical level and the bio-psycho-social objective level by means of various transmitters, hormones, peptides, and chemicals, connecting the creation of the image in the brain's cortex with the other physical and mental systems (Rossi, 1993; Sarafino, 2002).

Psychology explains these links by means of symbols and sifting mechanisms, distortion, and creativity. In his book "The Interpretation of Dreams", Freud explains that a person's psychological truth is reflected in dreams via symbolic metaphorical representations (Freud, 1900/1953). Phenomenological approaches also maintain that the person's true self is reflected in his/her subjective-phenomenological world (Rogers, 1951, 1961).

Social and cultural approaches show that every culture has its symbols, folk tales, fables, proverbs, and collective archetypes, affecting the peoples' representation of experiences on the metaphorical-spiritual level (Dwairy, 1997). For instance, Jung maintains that representations in dreams include symbols and universal archetypes from experience and the collective unconsciousness of humankind (Jung, 1964, 1965). The metaphorical descriptions of personal experiences are generally also culture-dependent, and are created through the use of symbols of that culture. For instance, a pig may symbolize evil in Islamic and Jewish culture, while in American culture it may symbolize something positive, connected to children's stories.

The model proposed in this article emphasizes that the connections between the objective-rational layer and the metaphorical-spiritual one are similar to those between the two hemispheres of the brain, and are dynamic, multi-directional, and reciprocal, forming one global system. Thus any change in one side of the brain activates a multidirectional system of connections within each layer and between the two layers.

About "real reality"

There is a lasting philosophical epistemological debate of the issue of what is the "real reality". On the one hand, positivist approaches maintain that reality exists in concrete form and we apprehend it by means of our senses and understand it via our brain; on the other hand, the phenomenological approaches maintain that reality is always subjective and that we have no proof regarding our existence except our thinking, as proposed by René Descartes. This debate also exists between the cultures. Western culture relates to concrete reality as visible and measurable objectively, as real reality, while many eastern cultures maintain that concrete reality is false, and that real reality is reality accessible by means of meditation or other religious or cultural rituals (Dwairy, 1997). These cultures relate to dreams and visions as a true resource that guides them in their lives. In these cultures, the sages are those capable of interpreting dreams and of connecting to the non-material world, from which they derive inspiration or guidance.

The quantum theory in physics undermined the positivist approach by discovering that what appears to us as a mass of matter is, in fact, energy. An atom, a small particle of matter, is really a creation by energy and is under specific conditions capable of becoming an atomic explosion. Consequently, all that we see is not concrete reality, but energy constructed in our brain by means of schemas and cognitive concepts of matter and of physical qualities. The green color that we associate with a cucumber is an experience caused by green waves of light, that our parents and the kindergarten teacher taught us to associate with a cucumber and thus to think of it as green.

The issue of the real reality is central to psychology. The reality-testing is the main criterion that we apply when assessing a patient's mental health. A patient not sufficiently connected to concrete reality may be suffering from psychotic disorders. On the other hand, there is an incisive debate between the psychotherapeutic schools about the real problem and the real change. For instance, the psychodynamic approach maintains that the behavioral approaches treat the outward appearance of the problem – the symptom or behavior, while the behavioral approaches maintain that the psychodynamic approaches treat hypothetical structures, devoid of any evidence in reality, and they distract the patient from the real problem, which is behavioral. Similar debates about the issue of objective reality exist in many disciplines, such as history, anthropology, geography, and law.

The model proposed here is free of such dichotomy and proffers to legitimize the existence of "two real realities", both present in human experience, suggests that they should be perceived as two sides of the same coin or entity, while each side has its own language and patterns of processing.

PSYCHOTHERAPY AND THE BIO-PSYCHO-SOCIAL SYSTEM

Psychotherapy appears to be intervention in the mind, but in actual fact it affects all the components of the bio-psycho-social system, both the objective-rational and the metaphorical-spiritual. For instance, the behavioral-cognitive approaches intervene in the objective system by means of control of reinforcements and punishments on the one hand, or control of irrational thoughts on the other hand. The model proposed in this article shows that the influence of behavioral-cognitive intervention affects the rest of the bio-psycho-social system, such as the systems within the body, the family, and the social environment, and also reaches the metaphorical-spiritual level, and thus, by means of bi-directional links, the entire system reorganizes itself. Humanist treatment that seeks to create an ambience of unconditional acceptance and empathy also radiates into the entire objective and metaphorical bio-psycho-social system. Re-connecting with the authentic self and self-actualization, which is supposed to occur automatically in the wake of humanist or gestalt treatment, will also result in physical, behavioral, and emotional change, and also changes in images and in the subjective and metaphorical experience of the patient.

On the other hand, treatment apparently focusing on the metaphorical-spiritual level eventually affects the objective-rational of the bio-psycho-social level, causing changes in thoughts, emotions, functioning, social behavior, and in the functioning of the body. Thus we can see that activating a single component of the bio-psycho-social system is a "mission impossible". Ley and Freeman (1984) maintained that all the psychotherapies, using words, whose processing occurs mainly in the linguistic centers in the left hemisphere, are usually accompanied by images and memories in the right hemisphere, which further the therapeutic process. Thus even if the reductive treatments focusing on a single component of the system are intended to effect a change mainly in that component, the patient's bio-psycho-social two-layered system will continue to function as a system connected by means of bi-directional links and will react accordingly, whatever the purpose of that intervention.

Metaphorical and narrative treatments are real

It appears that imagination, dreams, and creative activity play an important role in human survival and in physical and mental health (Sheikh and Allman, 2011). Research has shown a connection between health and the activity of the immune system on the one hand, and activity of the imagination on the other hand (Kunzendorf and Sheikh, 1990). Moreover, cases of death by cancer patients among schizophrenics, whose imaginative and hallucinatory system is active, are few when compared to people with a normative sense of reality (Modrzewska and Book, 1979).

There are several treatments intended to intervene in the patients' imagination, even though the main medium implemented is language. Such treatments are treatment encouraging the patients to re-experience their traumatic memories, hypnotic treatments, including many "as if" states, directed imagination, metaphorical treatment by means of the imagination, or artwork. The model proposed here claims that imagination is real and explains how these treatments eventually affect the objective bio-psycho-social level in the patient's real life. Three examples of such treatments are as follow:

Treatment via dreams

According to the proposed two-layered model, dreams belong to the metaphorical-spiritual level. A dream, such as an escape on horseback from a palace collapsing under the impact of an earthquake is a metaphorical processing of an experience, a conflict, or stress, comprehensible by means of techniques of dream interpretation such as free associations. The interpretation can help in the understanding of the bio-psycho-social objective-rational experience and in revealing the connection between the dream and any physical, psychological, and interpersonal stress.

In the course of the treatment, the dreamers are asked, as is customary, to be creative and suggest an alternative version of their dream that will make them feel good. According to the proposed model, which presumes the existence of multidirectional links between the two layers, this is supposed to bring about changes in the objective-rational layer, to be reflected in thinking and behavior, in feelings and the body's functioning, and in various

interpersonal relations. Sometimes, dreams present a metaphorical expression of a person's experience. One of the patients, suffering from frustration and anger owing to memories of rejection by her family that she had experienced, described her state, under the influence of the dream she had not remembered in detail, as swimming against the current. The description was accompanied by feelings of frustration, fatigue, pain and helplessness. When asked to create a different version of her dream/metaphor, where she would feel at ease, she described herself as reaching the riverbank, resting and enjoying the sun and the weather, turning around and appreciating the flowers, catching fish and cooking them. According to the proposed model, the metaphorical solution she created also affects the bio-psycho-social objective-rational layer. Consequently, in the course of integrative treatment, the imaginary solution had an impact on many irrational thoughts (Ellis), giving her a new perspective on her life style (Adler), which thus helped her discover that she can enjoy her life without focusing on conflicts in her family and choose where, with whom and how to live and enjoy her life – and a new stage in her relations with her family started.

Treatment by means of metaphors and art

Many among those who treated cancer patients asked them to draw the cancer in their bodies, or the pain they suffered, and in this way they encouraged them to represent the physical experience in a metaphorical-spiritual way. In order to promote metaphorical processing, they also asked them to draw and to imagine a way in which they would confront the cancerous cells and cope with the pain. Simonton et al. (1978) encouraged the dreamer to draw, in a creative way, the white blood corpuscles fighting against the cancerous cells successfully; and Bresler (1984) encouraged his patients to draw and imagine an experience without pain and as a pleasant one. In both cases, the treatment furthered metaphorical-spiritual processing, and eventually, according to the proposed two-layered model, brought about corresponding changes in the objective rational layer.

The metaphoric treatment is, of course, also applicable in cases of mental illness. One of the patients, suffering from a serious obsessive-compulsive disorder related to contamination and diseases, and who did not make progress via exposure technique, which had been planned together with him, described his obsession as an octopus, grasping his heart against his will, and preventing him from making progress, in spite of his determination to get rid of his obsession. The author narrates his session with this patient: I asked him: "If the obsession is an octopus, what is the heart that wants to free itself from it?" My intention was to define and activate the rational components opposing the obsession. He answered: "Like a strong horse with legs as strong as iron". I suggested to him to imagine the horse fighting the octopus and subduing it. He described a struggle with the horse kicking the octopus and smashing it, and then throwing it back into the sea. The imagined scene, which took a few minutes to describe, brought about relief, evident in his facial expressions and deep breathing. After treatment by means of this imagined scene, the patient was also more willing and determined to progress through exposure to states arousing obsession. At the end of the session, he accepted the task to exposing himself to physical contact with people visiting the hospital, without afterwards carrying out the ritual of washing himself. That same evening he sent me an SMS, in which he wrote: "The horse won". It appears that the metaphorical representations of the struggle within his mind penetrated deep into the objective-rational system, the metaphorical victory furthering a change in his thinking and behavior. Along with this metaphor therapy and behavioral-cognitive exposure therapy, we also addressed, in the course of the treatment, his tendency to avoid threats. He recalled childhood memories of an oppressive father and older brothers, which had led him to develop such avoidance styles. He became aware of his "transference" and became ready to reconsider his relationship with his brothers and build it on a new basis.

A similar process occurs when patients with medical, mental and familial, or social problems undergo treatment by means of art. They work on the representation of their stress in a spontaneous way by means of drawing or sculpting, and in the course of the treatment, their artworks begin to receive new forms and contents, corresponding to the processes occurring on the objective bio-psycho-social level.

Colors seem to correspond deep to the psychological experience. Many clients, suffering from anxiety or depression, describe their experience in terms of colors and shapes. One child described his anxiety as a red experience. When I asked him about the color of feeling safe and calm, he suggested the white color. Within a systemic multi-level intervention that integrated psychodynamic and behavioral-cognitive treatment, I suggested to him "to think white" when he experiences anxiety. He reported that this technique had helped him a great deal to calm down. In such cases, the colors that the client suggests serve as codes to control and change the patterns of thought and experience.

Narrative treatment

Narrative treatment begins with one narrative and ends with a different one. If during the course of the treatment the patient succeeds in changing his narrative from his being mainly a helpless victim and everyone despising him, and embarks on a narrative in which he had made his own choices in life and succeeded against all odds, and there were also some people who had supported and understood him, here also the reconstruction of the

narrative, occurring on a metaphorical level, is supposed to correspond to a similar objective-rational one, and be reflected in a real physical, emotional, cognitive, behavioral change, and in interpersonal relations.

In the author's opinion, most of the psychotherapeutic interventions (those apparently intended to affect a specific component in the two-layered system) also affect all the components of the system directly or indirectly. According to the proposed model, it is simply impossible to activate a single component of the system and leave the others unaffected. The physical state, behavior or an external event will be accompanied by objective-rational conceptualization, as well as by images and metaphors. Also words, images, or dreams (the main device used by psychotherapists) will be accompanied by physical, behavioral, and interpersonal changes.

THE CONTRIBUTION OF THE MODEL

The two-layer model broadens the bio-psycho-social model and adds a metaphorical-spiritual level, thus becoming more useful for psychotherapy. It abandons either of the models or the dichotomy on the issue of real reality, and relates to both the objective and subjective world as two ways of processing the same experience, while each has its own language and rules.

It presents the human experience as one bio-psycho-social system, and explains the connection between the objective and the subjective world by means of the accumulation of knowledge in the biological (transmitters and hormones), psychology (symbols and metaphors), and sociology (fables and myths) sphere.

It explains how each intervention is made in any one component of the two-layered system (the objective-rational and the metaphorical-spiritual one), and eventually creates changes in the other components of the system. It is very important to show that metaphorical-spiritual treatment does indeed influence the objective bio-psycho-social rational layer.

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