Revision and Re-Enchantment of Psychology:
Legacy from Half a Century of Consciousness Research

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Abstract.

Drawing on observations from more than fifty years of research into an important subgroup of non-ordinary states of consciousness that he calls "holotropic," the author suggests a revision of some basic assumptions of modern psychiatry, psychology, and psychotherapy. The proposed changes involve the nature of consciousness and its relationship to matter, dimensions of the human psyche, the roots of emotional and psychosomatic disorders, and therapeutic strategy. In the light of the new observations, spirituality appears to be an essential attribute of the human psyche and of existence in general. An important and controversial subject that could be only tangentially addressed in the context of this paper is the importance of archetypal psychology and astrology for consciousness research.

Modern Consciousness Research and the Dawning of A New Paradigm.

In 1962, Thomas Kuhn, one of the most influential philosophers of the twentieth century, published his groundbreaking book The Structure of Scientific Revolutions (Kuhn 1962). On the basis of fifteen years of

intensive study of the history of science, he demonstrated that the development of knowledge about the universe in various scientific disciplines is not a process of gradual accumulation of data and formulation of ever more accurate theories, as usually assumed. Instead, it shows a clearly cyclical nature with specific stages and characteristic dynamics, which can be understood and even predicted.

The central concept of Kuhn's theory, which makes this possible, is that of a *paradigm*. A paradigm can be defined as a constellation of beliefs, values, and techniques shared by the members of the community at a particular historical period. It governs the thinking and research activities of scientists until some of its basic assumptions are seriously challenged by new observations. This leads to a crisis and emergence of suggestions for radically new ways of viewing and interpreting the phenomena that the old paradigm is unable to explain. Eventually, one of these alternatives satisfies the necessary requirements to become the new paradigm that then dominates the thinking in the next period of the history of science.

The most famous historical examples of paradigm shifts have been the replacement of the Ptolemaic geocentric system by the heliocentric system of Copernicus, Kepler, and Galileo; the overthrow of Becher's phlogiston theory in chemistry by Lavoisier and Dalton; and the conceptual cataclysms in physics in the first three decades of the twentieth century that undermined the hegemony of Newtonian physics and gave birth to theories of relativity and quantum physics. Paradigm shifts tend to come as a major surprise to the mainstream academic community, since its members tend to mistake the leading paradigms for an accurate and definitive description of

reality. Thus in 1900 shortly before the advent of quantum-relativistic physics, Lord Kelvin declared: “There is nothing new to be discovered in physics now. All that remains is more and more precise measurements.”

In the last five decades, various avenues of modern consciousness research have revealed a rich array of “anomalous” phenomena – experiences and observations that have undermined some of the generally accepted assertions of modern psychiatry, psychology, and psychotherapy concerning the nature and dimensions of the human psyche, the origins of emotional and psychosomatic disorders, and effective therapeutic mechanisms. Many of these observations are so radical that they question the basic metaphysical assumptions of materialistic science concerning the nature of reality and of human beings and the relationship between consciousness and matter.

Holotropic States of Consciousness

In this paper, I summarize my observations and experiences from more than half a century of research into an important subgroup of non-ordinary states of consciousness for which I coined the name *holotropic;* these findings seriously challenge the existing scientific paradigms. Before I address this topic, I would like to explain the term holotropic that I will be using throughout this article. All these years, my primary interest has been to explore the healing, transformative, and evolutionary potential of non-ordinary states of consciousness and their great value as a source of new revolutionary data about consciousness, the human psyche, and the nature of reality.

From this perspective, the term “altered states of consciousness” (Tart 1969) commonly used by mainstream clinicians and theoreticians is not appropriate, because of its one-sided emphasis on the distortion or impairment of the “correct way” of experiencing oneself and the world. (In colloquial English and in veterinary jargon, the term “alter” is used to signify castration of family dogs and cats). Even the somewhat better term “non-ordinary states of consciousness” is too general, since it includes a wide range of conditions that are not relevant for the subject of this paper. Here belong trivial deliria caused by infectious diseases, tumors, abuse of alcohol, or circulatory and degenerative diseases of the brain. These alterations of consciousness are associated with disorientation, impairment of intellectual functions, and subsequent amnesia. They are clinically important, but lack therapeutic and heuristic potential.

The term holotropic refers to a large subgroup of non-ordinary states of consciousness that are of great theoretical and practical importance. These are the states that novice shamans experience during their initiatory crises and later in life induce in their clients for therapeutic purposes. Ancient and native cultures have used these states for millenia in rites of passage and in their healing ceremonies. They were described by mystics of all ages and initiates in the ancient mysteries of death and rebirth. Procedures for inducing them were also developed and used in the context of major world religions – Hinduism, Buddhism, Jainism, Taoism, Islam, Judaism, Zoroastrianism, and Christianity.

The importance of holotropic states for ancient and aboriginal cultures is reflected in the amount of time and energy that the members of these human groups dedicated to developing "technologies of the sacred," various procedures capable of inducing such states for ritual and spiritual purposes. These methods combine in various ways drumming and other forms of percussion, music, chanting, rhythmic dancing, changes in breathing, and cultivating special forms of awareness. Extended social and sensory isolation in a cave, desert, arctic ice, or in high mountains is also an important way to induce such non-ordinary states. Extreme physiological interventions used for this purpose include fasting, sleep deprivation, dehydration, use of powerful laxatives and purgatives, and even infliction of severe pain, body mutilation, and massive bloodletting. The ritual use of psychedelic plants has been by far the most effective tool for inducing healing and transformative non-ordinary states.

When I recognized the unique nature of these states of consciousness, I found it difficult to believe that contemporary psychiatry does not have a specific category and term for such theoretically and practically important experiences. Because I felt strongly that they deserve to be distinguished from "altered states of consciousness" and not be seen as manifestations of serious mental diseases, I started referring to them as *"*holotropic.*"* This composite word literally means "oriented toward wholeness" or "moving toward wholeness" (from the Greek *holos* = whole and *trepo/trepein* = moving toward or in the direction of something). The word holotropic is a neologism, but it is

related to the commonly used term *heliotropism* – the property of plants to always move in the direction of the sun.

Holotropic States of Consciousness and the Spiritual History of Humanity

The name holotropic suggests something that might come as a surprise to an average Westerner: in our everyday state of consciousness we identify with only a small fraction of who we really are and do not experience the full extent of our being. Holotropic states of consciousness have the potential to help us recognize that we are not *"*skin-encapsulated egos*,"* as British philosopher and writer Alan Watts called it (Watts 1961), but that, in the last analysis, we are commensurate with the cosmic creative principle itself. Or, to use the statement by Pierre Teilhard de Chardin, French paleontologist and philosopher, "we are not human beings having spiritual experiences, we are spiritual beings having human experiences" (Teilhard de Chardin 1975).

This astonishing idea is not new. In the ancient Indian Upanishads, the answer to the question: "Who am I?" is "Tat tvam asi." This succinct Sanskrit sentence means literally: "Thou art That," where "That" refers to the Godhead. It suggests that we are not "*namarupa*" – name and form (body/ego), but that our deepest identity is with a divine spark in our innermost being (*Atman*) which is ultimately identical with the supreme universal principle that creates the universe (*Brahman*). This revelation — the identity of the individual with the divine — is the ultimate secret that lies at the mystical core of all great spiritual

traditions. The name for this principle could thus be the Tao, Buddha, Shiva (of Kashmir Shaivism), Cosmic Christ, Pleroma, Allah, and many others. Holotropic experiences have the potential to help us discover our true identity and our cosmic status (Grof 1998). Sometimes this happens in small increments, other times in the form of major breakthroughs.

Holotropic States of Consciousness and Modern Psychiatry

Psychedelic research and the development of intensive experiential techniques of psychotherapy in the second half of the twentieth century moved holotropic states from the world of healers of ancient and preliterate cultures into modern psychiatry and psychotherapy. Therapists who were open to these techniques and used them in their practice were able to confirm the extraordinary healing potential of holotropic states and discovered their value as goldmines of revolutionary new information about consciousness, the human psyche, and the nature of reality. I became aware of the remarkable properties of holotropic states in 1956 when I volunteered as a beginning psychiatrist for an experiment with LSD-25. During this experiment, in which the pharmacological effect of LSD was combined with exposure to powerful stroboscopic light (referred to as “driving“ or “entraining” of the brainwaves), I had an overwhelming experience of cosmic consciousness (Grof 2006).

This experience inspired my lifelong interest in holotropic states and research in this area has become my passion, profession, and vocation. Since that time, most of my clinical and research activities have consisted of systematic exploration of the therapeutic, transformative, heuristic, and

evolutionary potential of these states. The half century that I have dedicated to consciousness research has been for me an extraordinary adventure of discovery and self-discovery. I spent the first few decades conducting psychotherapy with psychedelic substances, initially at the Psychiatric Research Institute in Prague, Czechoslovakia, and then at the Maryland Psychiatric Research Center in Baltimore, Maryland, where I participated in the last surviving U.S. psychedelic research program. Since 1975, my wife Christina and I have worked with Holotropic Breathwork, a powerful method of therapy and self-exploration that we jointly developed at the Esalen Institute in Big Sur, California. Over the years, we have also supported many people undergoing spontaneous episodes of non-ordinary states of consciousness – psychospiritual crises or "spiritual emergencies," as Christina and I call them (Grof and Grof 1989, Grof and Grof 1991).

In psychedelic therapy, holotropic states are brought about by administering mind-altering substances, such as LSD, psilocybin, mescaline, and tryptamine or amphetamine derivatives. In holotropic breathwork, consciousness is changed by a combination of faster breathing, evocative music, and energy-releasing bodywork. In spiritual emergencies, holotropic states occur spontaneously, in the middle of everyday life, and their cause is usually unknown. If they are correctly understood and supported, these episodes have an extraordinary healing, transformative, and even evolutionary potential.

I have also been tangentially involved in many disciplines that are more or less directly related to holotropic states of consciousness. I have spent much time exchanging information with anthropologists and have

participated in sacred ceremonies of native cultures in different parts of the world with and without the ingestion of psychedelic plants, such as peyote, ayahuasca, and Psilocybe mushrooms. This has involved contact with various North American, Mexican, South American, and African shamans and healers. I have also had extensive contact with representatives of various spiritual disciplines, including Vipassana, Zen, and Vajrayana Buddhism, Siddha Yoga, Tantra, and the Christian Benedictine order.

I have also closely followed the development of thanatology, the young discipline studying near-death experiences and the psychological and spiritual aspects of death and dying. In the late 1960s and early 1970s I participated in a large research project studying the effects of psychedelic therapy for individuals dying of cancer. I also have been privileged to know personally and experience some of the great psychics and parapsychologists of our era, pioneers of laboratory consciousness research, and therapists who had developed and practiced powerful forms of experiential therapy that induce holotropic states of consciousness.

My initial encounter with holotropic states was very difficult and challenging, both intellectually and emotionally. In the early years of my laboratory and clinical psychedelic research, I was bombarded daily with experiences and observations, that my medical and psychiatric training had not prepared me for. As a matter of fact, I was experiencing and observing things that were considered impossible in the context of the scientific worldview I had obtained during my medical training. And yet, those supposedly impossible things were happening all the time. I have described these “anomalous phenomena” in my articles and books (Grof 2000, 2006).

Psychology of the Future

In the late 1990s, I received a phone call from Jane Bunker, my editor at State University New York (SUNY) Press which had published many of my books. She asked me if I would consider writing a book that would summarize the observations from my research in one volume and would serve as an introduction to my already-published books. She also asked if I could specifically focus on all the experiences and observations from my research that current scientific theories could not explain and suggest the revisions in our thinking that would be necessary to account for these revolutionary findings. This was a tall order, but also a great opportunity. My 70th birthday was rapidly approaching and a new generation of facilitators was conducting our Holotropic Breathwork training all over the world. We needed a manual covering the material that was taught in our training modules. And here was an offer to provide it for us.

The result of this exchange was a book with a deliberately provocative title: *Psychology of the Future.* The radical revisions in our understanding of consciousness and the human psyche in health and disease that I suggested in this work fall into the following categories:

1. The Nature of Consciousness and Its Relationship to Matter
2.New Cartography of the Human Psyche
3. Architecture of Emotional and Psychosomatic Disorders
4. Effective Therapeutic Mechanisms
5. Strategy of Psychotherapy and Self-Exploration

6. The Role of Spirituality in Human Life

7. The Importance of Archetypal Astrology for Psychology

Unless we change our thinking in all these areas, our understanding of psychogenic emotional and psychosomatic disorders and their therapy will remain superficial, unsatisfactory, and incomplete. Psychiatry and psychology will be unable to genuinely comprehend the nature and origin of spirituality and appreciate the important role that it plays in the human psyche and in the universal scheme of things. These revisions are therefore essential for understanding the ritual, spiritual, and religious history of humanity – shamanism, rites of passage, the ancient mysteries of death and rebirth, and the great religions of the world. Without these radical changes in our thinking, potentially healing and heuristically invaluable experiences ("spiritual emergencies") will be misdiagnosed as psychotic and treated by suppressive medication.

A large array of the experiences and observations from the research of holotropic states will remain mystifying "anomalous phenomena", events that according to the current scientific paradigms should not occur. Mental health professionals will also have difficulty accepting the therapeutic power of psychedelic substances, mediated by profound experiences that are currently seen as psychotic — as demonstrated by the terms that mainstream clinicians and academicians use to describe them: experimental psychoses, psychotomimetics, or hallucinogens. This view reflects the inability to recognize the true nature of holotropic experiences as germane expressions of the deep dynamics of the psyche.

In view of my own initial resistance to the bewildering experiences and observations from researching holotropic states, as well as phenomena associated with them (such as astonishing synchronicities), I will not be surprised if the changes I am proposing encounter strong resistance in the academic community. This is understandable, considering the scope and radical nature of the necessary conceptual revisions. Professionals in conventional academic and clinical circles tend to confuse "map and territory" and see current theories concerning consciousness and the human psyche in health and disease to be a definitive and accurate description of reality (Korzybski 1931, Bateson 1972). We are not talking here about a minor patchwork, known as *ad hoc hypotheses*, but a major fundamental overhaul. The resulting conceptual cataclysm would be comparable in its nature and scope to the revolution that physicists had to face in the first three decades of the twentieth century when they were forced to move from Newtonian to quantum-relativistic physics. In fact, the coneptual changes I am proposing would represent a logical completion of the radical changes in our understanding of the material orld that have already occurred in physics.

The history of science abounds with examples of individuals who challenged the dominant paradigm. Typically, their ideas were initially dismissed as products of ignorance, poor judgment, bad science, fraud, or even insanity. I am now in the ninth decade of my life, a time when researchers often try to review their professional carer and outline the conclusions they have reached. More than half a century of research of holotropic states – my own, as well as that of many of my transpersonally-

oriented colleagues – has amassed so much supportive evidence for a radically new understanding of consciousness and of the human psyche that I have decided to describe this new vision in its entirety, fully aware of its controversial nature. The fact that the new findings challenge the most fundamental metaphysical assumptions of materialistic science should not be a sufficient reason for rejecting them. Whether this new vision will ultimately be refuted or accepted should be determined by unbiased future research of holotropic states.

1. The nature of consciousness and its relationship to matter.

According to the current scientific worldview, consciousness is an epiphenomenon of material processes; it allegedly emerges out of the complexity of the neurophysiological processes in the brain. This thesis is presented with great authority as an obvious fact that has been proven beyond any reasonable doubt. But on closer inspection, we discover that it is a basic metaphysical assumption that is not supported by facts and actually contradicts the findings of modern consciousness research.

We have ample clinical and experimental evidence showing deep correlations between the anatomy, physiology, and biochemistry of the brain, on the one hand, and states of consciousness, on the other. However, none of these findings proves unequivocally that consciousness is actually generated by the brain. Even sophisticated theories based on advanced research of the brain – such as Stuart Hameroff's suggestion that the solution of the problem of consciousness might lie in understanding the quantum process in the microtubules of brain cells on the molecular and

supramolecular level (Hameroff 1987) – falls painfully short of bridging the formidable gap between matter and consciousness and illuminating how material processes could generate consciousness.

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The origin of consciousness from matter is simply taken for granted as an obvious and self-evident fact, based on the metaphysical assumption of the primacy of matter in the universe. In fact, in the entire history of science, nobody has ever offered a plausible explanation for how consciousness could be generated by material processes, or even suggested a viable approach to the problem. Consider, for example, the book by Francis Crick *The Astonishing Hypothesis: The Scientific Search for the Soul* (Crick 1994); the book's jacket carried a very exciting promise: "Nobel Prize-winning Scientist Explains Consciousness."

Crick's "astonishing hypothesis" was succinctly stated at the beginning of his book: "You, your joys and your sorrows, your memories and your ambitions, your sense of personal identity and free will, are in fact no more than the behavior of a vast assembly of nerve cells and their associated molecules. Who you are is nothing but a pack of neurons." At the beginning of the book, "to simplify the problem of consciousness", Crick narrows it to the problem of optical perception. He presents impressive experimental evidence showing that visual perception is associated with distinct physiological, biochemical, and electrical processes in the optical system from the retina through the optical tract to the suboccipital cortex. And there the discussion ends as if the problem of consciousness had been satisfactorily solved.

In reality this is where the problem begins. What exactly is capable of transforming biochemical and electric processes in the brain into a conscious experience of a reasonable facsimile of the object we are observing, in full color, and project it into three-dimensional space? The formidable problem of the relationship between phenomena – things as we perceive them – and noumena – things as they truly are in themselves *(Dinge an sich)* was clearly articulated by Immanuel Kant (Kant 1999). Scientists focus their efforts on the aspect of the problem where they can find answers: the material processes in the brain. The much more mysterious problem – how physical processes in the brain generate consciousness – does not receive any attention, because it is incomprehensible and cannot be solved.

The attitude that Western science has adopted in regard to this issue resembles the famous Sufi story. On a dark night, Nasruddin, a satirical Sufi figure, is on his knees under a street lamp. His neighbor sees him and asks: "What are you doing? Are you looking for something?" Nasruddin answers that he is searching for a lost key and the neighbor offers to help. After some time of unsuccessful joint effort, the neighbor becomes confused and feels the need for clarification. He asks: "I don't see anything! Are you sure you lost it here?" Nasruddin shakes his head and points his finger to a dark area outside of the circle illuminated by the lamp and replies: "Not here, over there!" The neighbor is puzzled and inquires further: "So why are we looking for it here and not over there?" Nasruddin explains: "Because it is light here and we can see. Over there it’s dark and we would not have a chance!"

Similarly materialistic scientists have systematically avoided the problem of the origin of consciousness, because this riddle cannot be solved within the context of their conceptual framework. The idea that consciousness is a product of the brain is naturally not completely arbitrary. Its proponents usually refer to a vast body of very specific clinical observations from neurology, neurosurgery, neurophysiology, and psychiatry, to support their position.

The evidence for close correlations between the anatomy, neurophysiology, and biochemistry of the brain and consciousness is unquestionable and overwhelming. What is problematic is not the nature of the presented evidence but the conclusions that are drawn from these observations. In formal logic, this type of fallacy represents a *non sequitur* - an argument wherein its conclusion does not follow from its premises. While the experimental data clearly show that consciousness is closely connected with the neurophysiological and biochemical processes in the brain, they have very little bearing on the nature and origin of consciousness.

A simple analogy is the relationship between a TV set and the television program. The situation here is much clearer, since it involves a system that is human-made and its operation is well known. The final reception of the television program – the quality of the picture and of the sound – depends in a very critical way on the proper functioning of the TV set and on the integrity of its components. Malfunctions of its various parts

cause very distinct and specific changes of the quality of the program. Some of them lead to distortions of form, color, or sound, others to interference between the channels, etc. Like the neurologist who uses changes in consciousness as a diagnostic tool, a television mechanic can infer from the nature of these anomalies which parts of the set and which specific components are malfunctioning. When the problem is identified, repairing or replacing these elements will correct the distortions.

Since we know the basic principles of the television technology, it is obvious to us that the set simply mediates the program and that it does not generate it. We would laugh at somebody who would try to examine and scrutinize all the transistors, relays, and circuits of the TV set and analyze all its wires in an attempt to figure out how it creates the programs. Even if we carried this misguided effort to the molecular, atomic, or subatomic level, we would have absolutely no clue as to why, at a particular time, a Mickey Mouse cartoon, a Star Trek sequence, or a Hollywood classic appear on the screen. The close correlation between the functioning of the TV set and the quality of the program does not necessarily mean that the entire secret of the program is in the set itself. Yet this is exactly the kind of conclusion that traditional materialistic science draws from comparable data about the brain and its relation to consciousness.

Ample evidence suggests exactly the opposite, namely that under certain circumstances consciousness can operate independently of its material substrate and can perform functions that reach far beyond the capacities of the brain. This is most clearly illustrated by the existence of out-of-body experiences (OBEs), which can occur spontaneously, or in

various facilitating situations – shamanic trances, psychedelic sessions, spiritual practice, hypnosis, experiential psychotherapy, and particularly near-death experiences (NDEs). In all these situations consciousness can separate from the body and maintain its sensory capacity, while moving freely to various close and remote locations. Veridical OOBEs are particularly interesting, because independent verification confirms that the perception of the environment is accurate. In near-death situations, veridical OOBEs can occur even in people who are congenitally blind for organic reasons (Ring and Valarino 1998; Ring and Cooper 1999). Many other types of transpersonal phenomena can also mediate accurate information about various aspects of the universe that had not been previously received and recorded in the brain (Grof 2000).

Materialistic scientists have not been able to produce any convincing evidence that consciousness is a product of the neurophysiological processes in the brain. They have been able to maintain this conviction only by ignoring, misinterpreting, and even ridiculing a vast body of observations indicating that consciousness can exist and function independently of the body and of the physical senses. This evidence comes from parapsychology, anthropology, LSD research, experiential psychotherapy, thanatology, and the study of spontaneously occurring holotropic states of consciousness (spiritual emergencies). These disciplines have all amassed impressive data demonstrating clearly that human consciousness is capable of functioning in many ways that the brain, as understood by mainstream science, cannot possibly achieve and that consciousness is a primary and further irreducible aspect of existence – an equal partner of matter or possibly superordinated to it.

2. New Cartography of the Human Psyche

Traditional academic psychiatry and psychology use a model of the human psyche that is limited to postnatal biography and to the individual unconscious described by Sigmund Freud. According to Freud, our psychological history begins after we are born; the newborn is a *tabula rasa*, a clean slate. Our psychological functioning is determined by an interplay between biological instincts and influences that have shaped our life since we came into this world – the quality of nursing, the nature of toilet training, various psychosexual traumas, development of the superego, our reaction to the Oedipal triangle, and conflicts and traumatic events in later life. According to this point of view, our postnatal personal and interpersonal history determine who we become and how we psychologically function.

The Freudian individual unconscious is also essentially a derivative of our postnatal history – a repository of what we have forgotten, rejected as unacceptable, and repressed. This underworld of the psyche (the *id* as Freud called it), is a realm dominated by primitive instinctual forces. To describe the relationship between the conscious psyche and the unconscious Freud used his famous image of the submerged iceberg. In this simile what had been assumed to be the totality of the psyche was only a small part of it, like the portion of the iceberg showing above the surface of the water. Psychoanalysis discovered that a much larger part of the psyche, comparable to the submerged part of the

iceberg, is unconscious and, unbeknownst to us, governs our thought processes and behavior.

Later contributions to dynamic psychotherapy added to etiological factors problems in the development of object relationships and interpersonal dynamics in the nuclear family, but shared with Freudian psychoanalysis the exclusive emphasis on postnatal life (Blanck and Blanck 1974, 1979, Sullivan 1953, Satir 1983, Bateson et al. 1956). Who we become and how we psychologically function is determined by what happens to us after we were born. But this model proves to be painfully inadequate when we work with holotropic states of consciousness induced by psychedelics and various non-drug means, as well as those occurring spontaneously. To account for all the phenomena occurring in these states, we must drastically revise our understanding of the dimensions of the human psyche. Besides *the postnatal biographical level* that it shares with traditional psychology, the new expanded cartography includes two additional large domains.

The first of these domains can be referred to as "perinatal," because of its close connection with the trauma of biological birth. This region of the unconscious contains the memories of what the fetus experienced in the consecutive stages of the birth process, including all the emotions and physical sensations involved. These memories form four distinct experiential clusters, each of which is related to one of the stages of childbirth. I have coined for them the term "basic perinatal matrices" *(BPM I-IV).*

BPM I consists of memories of the advanced prenatal state just before the onset of the delivery. BPM II is related to the first stage of the birth process when the uterus contracts, but the cervix is not yet open. BPM III reflects the struggle to be born after the uterine cervix dilates. And finally, BPM IV holds the memory of emerging into the world, the birth itself. The content of these matrices is not limited to fetal memories; each of them also represents a selective opening into the domains of the historical and archetypal collective unconscious, which contain motifs of similar experiential quality. Detailed description of the phenomenology and dynamics of perinatal matrices can be found in my various publications (Grof 1975, 2000).

The official position of academic psychiatry is that biological birth is not recorded in memory and does not constitute a psychotrauma. The usual reason for denying the possibility of birth memory is that the cerebral cortex of the newborn is not mature enough to mediate experiencing and recording of this event. More specifically, the cortical neurons are not yet *"*myelinized*"* – completely covered with protective sheaths of a fatty substance called myelin. Surprisingly, this same argument is not used to deny the existence and importance of memories from the time of nursing, a period that immediately follows birth. The psychological significance of the experiences in the oral period and even bonding – the exchange of looks and physical contact between the mother and child immediately after birth – is generally recognized and acknowledged by mainstream obstetricians, pediatricians, and child psychiatrists, (Klaus, Kennell, and Klaus 1995, Kennel and Klaus 1998).

The myelinization argument makes no sense and is in conflict with scientific evidence of various kinds. For instance, it has been established that memory exists in organisms that do not have a cerebral cortex at all. In 2001, an American neuroscientist of Austrian origin, Erik Kandel, received a Nobel Prize in physiology for his research of memory mechanisms of the sea slug Aplysia, an organism incomparably more primitive than the newborn child. At Tufts University Tal Shomrat and Michael Levin, conducted fascinating research into the molecular mechanisms in Planarian flatworms that enable these organisms to regenerate their entire body, including the brain. The Planaria may offer unique opportunity to study brain regeneration and memory in the same animal. To establish a system for the investigation of the dynamics of memory in a regenerating brain, they developed a computerized system to train flatworms in an environmental familiarization protocol. They showed that worms exhibited environmental familiarization, and that this memory persisted for at least 14 days – long enough for the brain to regenerate. They further showed that trained, decapitated Planaria exhibited evidence of memory retrieval after regenerating a new head model system. The authors propose planaria as a key model species for mechanistic investigations of the encoding of specific memories in biological tissues.

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The assertion that the newborn is not aware of being born and is not capable of forming memory of this event is also strongly conflicts with extensive fetal research showing that the fetus is extremely sensitive even in the prenatal stage (Tomatis 1991, Whitwell 1999, Moon, Lagercrantz, and Kuhl 2010). The most likely explanation of this striking logical inconsistency occurring in individuals trained in rigorous scientific thinking is psychological repression and resistance in regard to the terrifying memory of biological birth.

The second transbiographical domain of the new cartography is best called "transpersonal" because it includes a rich array of experiences in which consciousness transcends the boundaries of the body/ego and the usual limitations of linear time and three-dimensional space. This transcendence leads to experiential identification with other people, groups of people, other life forms, and even elements of the inorganic world. Transcendence of time provides experiential access to ancestral, racial, collective, phylogenetic, and karmic memories. Yet another category of transpersonal experiences can take us into the realm of the collective unconscious that the Swiss psychiatrist C. G. Jung called archetypal. This region harbors mythological figures, themes, and realms of all the cultures and ages, even those of which we have no previous intellectual knowledge (Jung 1959).

In its farthest reaches, individual consciousness can identify with the Universal Mind or Cosmic Consciousness, the creative principle of the universe. Probably the most profound experience available in holotropic states is identification with the Supracosmic and Metacosmic Void,

Primordial Emptiness and Nothingness that is conscious of itself. The Void has a paradoxical nature; it is a vacuum, in the sense that it is devoid of any concrete forms, but it is also a plenum, since it seems to contain all of creation in a potential form.

The existence and nature of transpersonal experiences violate some of the most basic assumptions of materialistic science. They imply such seemingly absurd notions as relativity and arbitrary nature of all physical boundaries, nonlocal connections in the universe, communication through unknown means and channels, memory without a material substrate, the nonlinearity of time, or consciousness associated with all living organisms, and even inorganic matter. Many transpersonal experiences involve events from both the microcosm and the macrocosm, realms that cannot normally be reached by unaided human senses, or from historical periods that precede the origin of the solar system, formation of planet earth, appearance of living organisms, development of the nervous system, and emergence of *Homo sapiens.*

Mainstream academicians and physicians adhering to the monistic materialistic worldview have no other choice but to deny the existence and authenticity of transpersonal experiences or relegate them to the category of "anomalous phenomena." However, serious attempts have been made to provide for them a scientific conceptual framework and integrate them into a revolutionary new worldview. In an intellectual *tour de force* and a series of books, the world's foremost system theorist, interdisciplinary scientist, and philosopher, Ervin Laszlo, has explored a wide range of disciplines, including astrophysics, quantum-relativistic physics, biology, and

transpersonal psychology (Laszlo 1993, 1999, 2003, 2004a, 2004b). He pointed out a wide range of phenomena, paradoxical observations, and paradigmatic challenges, for which these disciplines have no explanations. Drawing on revolutionary advances of twentieth century's science, he has offered a brilliant solution to the anomalies and paradoxes that currently plague many of its fields. Laszlo achieved this by formulating his connectivity hypothesis, which has as its main cornerstone the existence of what he called the "psi-field" and, more recently, renamed the "Akashic field" (Laszlo 2003, 2004b).

Laszlo describes it as a subquantum field that is the source of all creation and holds a holographic record of all the events that have happened in the phenomenal world. He equates this field with the concept of "quantum vacuum" (or better "quantum plenum") that has emerged from modern physics (Laszlo 2003, 2004ab). Laszlo's connectivity hypothesis provides a scientific explanation for otherwise mysterious transpersonal experiences, such as experiential identification with other people and with representatives of other species, group consciousness, possibility of experiencing episodes from other historical periods and countries including past life experiences, telepathy, remote viewing and other psychic abilities, out-of-body experiences, astral projection, the experience of the Supracosmic and Metacosmic Void, and others.

An alternative conceptual framework that can account for many of the baffling properties of transpersonal experiences is the process philosophy of the English mathematician, logician, and philosopherAlfred North Whitehead (Whitehead 1978). Whitehead's metaphysical system is of

particular interest because it does not grant fundamental metaphysical status to matter but places central focus on experience or mind. According to process philosophy, the basic element of which the universe is made is not an enduring substance, but a moment of experience, called in his terminology “actual occasion." The universe is composed of countless discontinuous bursts of experiential activity on all levels of reality, from subatomic particles to human souls. The relevance of Whitehead's philosophy for transpersonal psychology and consciousness research has been explored in the writings of John Buchanan, David Ray Griffin, John Quiring, Leonard Gibson, and Grant Maxwell (Buchanan 1994, 2001, 2002 and 2005, Griffin 1989 and 1996, Quiring 1996, Gibson 1998, 2006, 2010, and Maxwell 2011).

Transpersonal experiences and the theories of Ken Wilber.

Another important attempt to integrate transpersonal experiences and spirituality with the scientific worldview is the work of Ken Wilber, initially referred to as spectrum psychology and later as integral psychology. In my books, I have classified transpersonal experiences in a strictly phenomenological and not in a hierarchical manner. The Hindu and Buddhist literature and Ken Wilber in his writings based on these sources take the hierarchical approach of specifying the levels of consciousness on which various transpersonal experiences occur. To construct his map of psychospiritual development, Wilber used material from ancient spiritual literature, primarily from Vedanta Hinduism and both Theravada and Mahayana Buddhism. My own data are drawn from clinical observations in contemporary populations in a number of European countries, North and

South America, and Australia, complemented by some limited experience with Japanese and East Indian experiential groups. However, despite the difference in the sources of data, it is not difficult to arrange transpersonal experiences in my classification in such a way that they closely parallel Wilber's's description of the levels of spiritual evolution (Wilber 1980).

My research has provided empirical evidence for the existence of most of the experiences included in Wilber's developmental scheme. It has also shown that the descriptions in ancient spiritual sources that Wilber draws on are still highly relevant for modern humanity. However, since the examples that Wilber uses for various levels of psychospiritual development are rather scanty and incomplete, incorporating the observations from my research of holotropic states into his scheme requires some important additions and adjustments.

Wilber's scheme of the post-centauric spiritual domain includes the lower and higher subtle level, lower and higher causal level, and the level of the Ultimate or Absolute. According to him, the *low subtle*, or *astral-psychic, level of consciousness* is characterized by a degree of differentiation of consciousness from the mind and body which exceeds that achieved on the centaur level. The astral level, in Wilber's own words, "includes, basically, out-of-body experiences, certain occult knowledge, the auras, true magic, 'astral travel,' and so on." Wilber's description of the psychic level includes various 'psi' phenomena: ESP, precognition, clairvoyance, psychokinesis, and others. He also refers here to Patanjali's Sutras that include on the subtle level all the paranormal powers, mind-over-matter phenomena, or *siddhis* (Patanjali 1990). In the *higher subtle*

realm, consciousness differentiates itself completely from the ordinary mind and becomes what can be called the ‘overself’ or ‘overmind.’ In this domain, Wilber places high religious intuition and inspiration, visions of divine light, audible illuminations, and higher presences – spiritual guides, angelic beings, ishtadevas, Dhyani-Buddhas, and God's archetypes, which he sees as high archetypal forms of our own being.

Like the subtle level, the causal level can be subdivided into lower and higher. Wilber points out that the *lower causal realm* is manifested in a state of consciousness known as *savikalpa samadhi*, the experience of final God, the ground, essence, and source of all the archetypal and lesser-god manifestations encountered in the subtle realms. The *higher causal realm* then involves a "total and utter transcendence and release into Formless Consciousness, Boundless Radiance." In this context Wilber refers to *nirvikalpa samadhi* of Hinduism, *nirodh* of Hinayana Buddhism, and to the eighth of the ten ox-herding pictures of Zen Buddhism.

On Wilber's last level, that of the *Absolute*, Consciousness awakens as its Original Condition and Suchness (*tathagata*), which is, at the same time, all that is, gross, subtle, or causal. The distinction between the witness and the witnessed disappears and the entire World Process then arises, moment to moment as one's own Being, outside of which and prior to which nothing exists.

In a hierarchical classification based on my own data, I would include in the *low subtle* or *astral-psychic level* experiences that involve elements of the material world, but provide information in a way that is

radically different from our everyday perception. Here belong, above all, experiences that are traditionally studied by parapsychologists (and some also by thanatologists and therapists), such as out-of-body experiences, astral travel, ESP phenomena, precognition, and clairvoyance. I would also add experiences of phenomena that are closely connected to material reality, but reveal aspects or dimensions that are not accessible to ordinary consciousness – the subtle or energy body, its conduits (*nadis* or *meridians*), fields (*auras*), and centers *(chakras).* Particularly relevant in this context is the concept of *crosspoints,* bridges between the visible and invisible reality, found in Tantric literature (Mookerjee and Khanna 1977).

I would also include on the low subtle level some important transpersonal experiences that occur in my cartography but are not mentioned by Wilber. Here belong experiential identification with various aspects of space-time – other people, animals, plants, and inorganic materials and processes, as well as ancestral, racial, collective, phylogenetic, and karmic experiences. I have shown in my previous publications that all these experiences mediated by extrasensory channels provide access to accurate new information about the phenomena involved (Grof 1975, 1985, 1987, 2000).

I would also add from my own classification a category of experiences that I call *psychoid*, using the term coined by Hans Driesch and adopted by C. G. Jung (Addison 2009). This group includes situations in which intrapsychic experiences are associated with corresponding changes in the external world (or better in consensus reality). Psychoid experiences cover a wide range from Jung's synchronicities (Jung 1960) and ceremonial

magic to psychokinesis and other mind-over-matter phenomena, or *siddhis* (Grof 1988) that Patanjali assigns to the subtle level of consciousness.

The categories of my map of transpersonal experiences that could be assigned to the *high subtle level* include visions of divine light and epiphany, encounters with various blissful and wrathful archetypal figures, communication with spirit guides and superhuman entities, contact with shamanic power animals, direct apprehension of universal symbols, and episodes of religious and creative inspiration (the 'Promethean epiphany'). The visions of archetypal beings or experiential identification with them can portray them in their universal form (e.g. the Great Mother Goddess) or in the form of their specific cultural manifestations (e.g. Virgin Mary, Isis, Cybele, Parvati, etc.).

Over the years, I have been privileged to be present in psychedelic and Holotropic Breathwork sessions of people having experiences from the lower and higher causal realms and possibly even those of the Absolute. I have also had personal experiences that I believe fall into these categories. In my classification these episodes are described under such titles as experiences of the Demiurg, Cosmic Consciousness, Absolute Consciousness, or Supracosmic and Metacosmic Void.

Having spent more than half a century studying holotropic states of consciousness, I have no doubt that there exist transpersonal experiences which are ontologically real and are not products of metaphysical speculation, human imagination, or pathological processes in the brain. By the term ontologically real, I refer to a category of experiences which not

only possess the subjective sense of reality, but whose contents also seem to reveal something of the nature or essential qualities of being or existence. It would be erroneous to dismiss all transpersonal experiences as products of fantasy, primitive superstition, or manifestations of mental disease, as has so frequently been done.

Anyone attempting to do so would have to offer a plausible explanation why these experiences have in the past been described so consistently by people of various races, cultures, and historical periods. He or she would also have to account for the fact that these experiences continue to emerge in modern populations under such diverse circumstances as sessions with various psychedelic substances, during experiential psychotherapy, in meditation of people involved in systematic spiritual practice, in near-death experiences, and in the course of spontaneous episodes of psychospiritual crisis. Detailed discussion of the transpersonal domain, including descriptions and examples of various types of transpersonal experiences can be found in my various publications (Grof 1975, 1987, and 2000).

In view of this vastly expanded model of the psyche, we could now paraphrase Freud's simile of the psyche as an iceberg by saying that everything Freudian analysis has discovered about the psyche represents just the tip of the iceberg showing above the water. Research of holotropic states has made it possible to discover and explore the vast submerged portion of the iceberg, which has escaped the attention of Freud and his followers, with the exception of the remarkable renegades Otto Rank and C. G. Jung. Mythologist Joseph Campbell, known for his incisive Irish

humor, used a different metaphor: “Freud was fishing while sitting on a whale.”

3. The Nature, Function, and Architecture of Emotional and Psychosomatic Disorders

To explain various emotional and psychosomatic disorders that do not have an organic basis (“psychogenic psychopathology”), traditional psychiatrists use a superficial model of the psyche limited to postnatal biography and the individual unconscious. This model suggests that these conditions originate in infancy and childhood as a result of various emotional traumas and interpersonal dynamics in the family of origin. There seems to be general agreement among schools of dynamic psychotherapy that the depth and seriousness of these disorders depend on the timing of the original traumatization.

Thus, according to classical psychoanalysis, the origin of alcoholism, narcotic drug addiction, and manic-depressive disorders can be found in the oral period of libidinal development; obsessive-compulsive neurosis has its roots in the anal stage; phobias and conversion hysteria result from traumas incurred in the phallic phase and at the time of the Oedipus and Electra complex; and so on (Fenichel 1945). Later developments in psychoanalysis have linked some very deep disorders – autistic and symbiotic infantile psychoses, narcissistic personality, and borderline personality disorders – to disturbances in the early development of object relations (Blanck and Blanck 1974 and 1979).

As I mentioned earlier, this does not apply to Rankian and Jungian therapists who understand that the roots of emotional disorders reach deeper into the psyche.

These conclusions are based on observations of therapists who use primarily verbal means. The understanding of psychogenic disorders changes radically when we employ methods involving holotropic states of consciousness that engage levels of the unconscious generally inaccessible to verbal therapy. Initial stages of this work typically uncover relevant traumatic material from early infancy and childhood that is meaningfully related to emotional and psychosomatic problems and appears to be their source. However, when the process of uncovering continues, deeper layers of the unconscious unfold and we find additional roots of the same problems on the perinatal and transpersonal levels of the psyche.

Various ways of working with holotropic states – such as psychedelic therapy, Holotropic Breathwork, rebirthing, and primal therapy, or psychotherapy with people experiencing spontaneous psychospiritual crises – have shown that emotional and psychosomatic problems cannot be adequately explained as originating exclusively in postnatal psychotraumatic events. In my experience, the unconscious material associated with them typically forms multilevel dynamic constellations for which I have coined the term “systems of condensed experience“ or “COEX systems“ (Grof 1975, 2000).

A typical COEX system consists of many layers of unconscious material that share similar emotions or physical sensations; the

contributions to a COEX system come from different levels of the psyche. The more superficial and accessible layers contain memories of emotional or physical traumas from infancy, childhood, and later life. On a deeper level, each COEX system is typically connected to a certain aspect of the memory of birth – a specific BPM; the choice of this matrix depends on the nature of the emotional and physical feelings involved. For example, if the theme of the COEX system is victimization, this would be BPM II; if it is fight against a powerful adversary or sexual abuse, the connection would be to BPM III. For a positive COEX comprising memories of deeply satisfying and fulfilling situations it would be BPM I or BPM IV, and so on.

The deepest roots of COEX systems underlying emotional and psychosomatic disorders reach into the transpersonal domain of the psyche. They have the form of ancestral, racial, collective, and phylogenetic memories, experiences that seem to be coming from other lifetimes ("past life memories"), and various archetypal motifs. Thus, for example, therapeutic work on anger and disposition to violence can, at a certain point, take the form of experiential identification with a tiger or a black panther. Or the deepest root of serious antisocial behavior can be a demonic archetype, while the final resolution of a phobia can come in the form of reliving and integrating of a past life experience, and so on.

The overall architecture of the COEX systems can best be shown by a clinical example. A person suffering from psychogenic asthma might discover in serial breathwork sessions a powerful COEX system underlying this disorder. The biographical part of this constellation might

consist of a memory of near drowning at the age of seven, memories of being repeatedly strangled by an older brother between the ages of three and four, and a memory of severe choking during whooping cough or diphtheria at age two. The perinatal contribution to this COEX might be, for example, suffocation experienced during birth because of strangulation by the umbilical cord twisted around the neck. A typical transpersonal root of this breathing disorder might be an experience of being hanged or strangled in what seems to be a previous lifetime. Detailed discussion of COEX systems and their role in various forms of psychopathology, including additional examples, are available in several earlier of my publications (Grof 1975, 1987, and 2000).

4. Effective Therapeutic Mechanisms

Traditional psychotherapy recognizes only therapeutic mechanisms that operate on the level of the biographical material, such as weakening of the psychological defense mechanisms, remembering forgotten or repressed traumatic events, reconstructing the past from dreams or neurotic symptoms, attaining intellectual and emotional insights, analyzing of transference, and obtaining corrective experience in interpersonal relations. Psychotherapy involving holotropic states of consciousness offers many additional highly effective mechanisms of healing and personality transformation that become available when experiential regression reaches the perinatal and transpersonal levels. Such mechanisms include actual reliving of traumatic memories from infancy, childhood, biological birth, and prenatal life; past life memories;

emergence of archetypal material; experiences of cosmic unity; and others.

This therapeutic dynamics can be illustrated by the story of a participant at one of our workshops at Esalen Institute in Big Sur, California, whom I will call Norbert. At the beginning of the workshop, Norbert complained about severe chronic pain in his left shoulder and pectoral muscle that had caused him great suffering and made his life miserable. Repeated medical examinations, including X-rays, had not detected any organic basis for his problem and all therapeutic attempts had remained unsuccessful. Serial Procaine injections had brought only brief transient relief for the duration of the pharmacological effect of the drug.

> Norbert's breathwork session was long and very dramatic. In the sharing group following it, he described that there were three different layers in his experience, all of them related to the pain in his shoulder and associated with choking. On the most superficial level, he relived a frightening situation from his childhood in which he almost lost his life. When he was about seven years old, he and his friends were digging a tunnel on a sandy ocean beach. When the tunnel was finished, Norbert crawled inside to explore it. As the other children jumped around, the tunnel collapsed and buried him alive. He almost choked to death before he was rescued by the adults who arrived in response to the children's alarming screams.
>
> When the breathwork experience deepened, Norbert relived a violent and terrifying episode that took him back to the memory of his biological birth. His delivery was very difficult, since his shoulder was stuck for an extended period of time behind the pubic bone of his mother. This episode shared with the previous one the combination of choking and severe pain in the left shoulder.

In the last part of the session, the experience changed dramatically. Norbert started seeing military uniforms and horses and recognized that he was involved in a fierce battle. He was even able to identify it as one of the battles in Cromwell's England. At one point, he felt a sharp pain in his left shoulder and realized that it had been pierced by a lance. He fell off the horse and experienced himself as being trampled by the other horses running over his body and crushing his chest. His broken rib cage caused him agonizing pain, and he was choking on blood, which was filling his lungs.

After a period of extreme suffering, Norbert's consciousness separated from his dying body, soared high above the battlefield, and observed the scene from a bird's eye view. Following the death of the severely wounded soldier, whom he recognized as himself in a previous incarnation, Norbert's consciousness returned to the present time and reconnected with his body, which was now pain-free for the first time after many years of agony. The relief from pain brought about by these experiences turned out to be permanent.

5. Strategy of Psychotherapy and Self-Exploration

The most astonishing aspect of modern psychotherapy is the number of competing schools with vast differences of opinion and lack of agreement concerning the most fundamental issues. What are the dimensions of the human psyche and what are its most important motivating forces? Why do symptoms develop and what do they mean? Which issues that the client brings into therapy are central and which are less relevant? What techniques and strategies should be used to correct or improve the emotional, psychosomatic, and interpersonal functioning of

the clients? There are as many answers to these questions as there are schools of psychotherapy.

The goal of traditional dynamic psychotherapies is to reach intellectual understanding of the human psyche, in general, and that of a specific client, in particular, and then use this knowledge to develop an effective therapeutic technique and strategy. An important tool in many modern psychotherapies is "interpretation;" by which the therapist reveals to the client the "true" or "real" meaning of his or her thoughts, emotions, and behavior. This method is widely used in analyzing dreams, neurotic symptoms, behavior, and even seemingly trivial everyday actions, such as slips of the tongue or other small errors, Freud's *Fehlleistungen* (Freud 1960a). Another area in which interpretations are commonly applied is interpersonal dynamics, including transference of various unconscious feelings and attitudes on the therapist.

Therapists spend much effort trying to determine what is the most fitting interpretation in a given situation and what is the appropriate timing of this interpretation. Even an interpretation that is "correct" in terms of its content can allegedly be useless or harmful for the patient if it is offered prematurely, before the client is ready for it. A serious flaw of this approach to psychotherapy is that individual therapists, especially those who belong to diverse schools, attribute very different value to the same psychological content or behavior and offer for it diverse and even contradictory interpretations. I will illustrated this by a humorous example from my own psychoanalytic training.

As a beginning psychiatrist, I was in training analysis that involved three sessions a week for a period of over seven years; my analyst was the Nestor of Czechoslovakian psychoananalysis and president of the Czechoslovakian Psychoanalytic Association, Dr. Theodor Dosužkov. At the time of my analysis, Dr. Dosužkov was in his late sixties and it was known among his analysands – all young psychiatrists – that he had a tendency to occasionally doze-off during analytic hours. Dr.Dosužkov's habit was a favorite target of his students' jokes.

In addition to individual psychoanalytic training sessions, Dr. Dosužkov also conducted seminars where his students shared reviews of books and articles, discussed case histories, and could ask questions about the theory and practice of psychoanalysis. In one of these seminars, a participant asked a "purely theoretical" question: "What happens if during analysis the psychoanalyst falls asleep? If the client continues free-associating, does therapy continue? Is the process interrupted? Should the client get refunded for that time, since money is such an important vehicle in Freudian analysis?"

Dr. Dosužkov could not deny that such a situation could occur in psychoanalytic sessions. He was aware that the analysands knew about his foible and he had to come up with an answer. "This can happen," he said. "Sometimes, you are tired and sleepy – you did not sleep well the night before, you are recovering from a flu, or are physically exhausted. But if you have been in this business a long time, you develop a kind of sixth sense; you fall asleep only when the stuff that is coming up is irrelevant. When the client says something really important, you wake up and you are right there!"

Dr. Dosužkov was also a great admirer of I. P. Pavlov, a Russian Nobel Prize-winning physiologist who derived his knowledge of the brain from his experiments with dogs. Pavlov wrote much about the inhibition of the cerebral cortex that occurs during sleep or hypnosis; he described that occasionally there could be a "waking point" in the inhibited brain cortex. His favorite example was a mother who can sleep through heavy noises, but awakens immediately when her own child is moaning. "It is just like the situation of the mother Pavlov wrote about," explained Dr.

Dosužkov, “with enough experience, you will be able to maintain connection with your client even when you fall asleep.”

But Dr. Dosužkov’s explanation was clearly flawed. What a therapist considers relevant in the client’s narrative reflects his or her training and personal bias. An Adlerian, Rankian, or Jungian therapist would have awakened at different times of the session – each at the moment when my narrative would bring something that, according to their training and judgment, was “relevant.”

Because of the great conceptual differences between the schools of depth psychology, the question naturally arises as to which ones offer a more correct understanding of the human psyche in health and disease. If it were true that correct and properly timed interpretations are a significant factor in psychotherapy, one would expect to find great differences in the therapeutic success achieved by various schools. Their therapeutic results could be mapped on a Gaussian curve; therapists of the school with the most accurate understanding of the psyche and, therefore, most fitting interpretations would have the best results, while those belonging to orientations with less accurate conceptual frameworks would be distributed on the descending parts of the curve.

I do not know of any scientific studies that show clear superiority of some schools of psychotherapy over others, as measured by outcomes. If anything, the differences are found within the schools rather than between them – and such differences result from variations in the skills of the therapists within any given school. In each school there are better

therapists and worse therapists. And, very likely, the therapeutic results have very little to do with what the therapists think they are doing, such as

the accuracy and good timing of interpretations, correct analysis of transference, tactical use of silence, and other specific interventions. Successful therapy probably depends on factors that are unrelated to intellectual brilliance and are difficult to describe in scientific language – the "quality of the human encounter" between therapists and clients, the feeling of the clients that they are unconditionally accepted by another human being, frequently for the first time in their life, because they have not experienced it in their own family of origin. Additional factors could be the amount of time and quality of attention that the clients give to their unconscious proceasses or the strength of hope and expectations that the client feels during the therapeutic process.

In their remarkable comprehensive books Jerome Frank, Julia Frank, and Renato Alarcon discussed the challenges associated with the attempts to measure the effects of psychotherapy and to contrast schools and related theories with one another (Frank and Frank 1993, Alarcon and Frank 2011). They showed clearly the difficult methodological problems that these endeavors encounter. Meta-analyses have produced some evidence that psychotherapy can have positive effects, but failed to detect significant differences between the therapeutic success of various competing schools of psychotherapy or of experienced therapists and novices.

Frank and Frank concluded that the outcomes of therapy are generally better than being on the waiting list, but outcomes from different schools of psychotherapy are remarkably similar, despite professed

differences in the theories and techniques. In their summary of the proceedings of a conference on research in psychotherapy, Rubinstein and Parloff offered the following facetious characterization of the status of the field of psychotherapy: “Psychotherapy is an undefined technique applied to unspecified problems, with unpredictable outcome. For this technique, we recommend rigorous training” (Rubinstein and Parloff 1959).

Given this disconcerting lack of agreement on the theory and practice of psychotherapy, a client with an emotional or psychosomatic disorder might just as well choose a psychotherapeutic school by flipping a coin. With each school comes a different explanation of the problem he or she brought into therapy and a different technique is offered as the method of choice to overcome it. Similarly, when a beginning therapist seeking training chooses a particular therapeutic school, that choice says more about the personality of the applicant than the value of the school.

The problem with many of the psychotherapeutic schools is that they correctly describe the dynamics on a certain level of the psyche but lack the understanding of the phenomena from other levels and try to interpret them in terms of their own limited conceptual framework. For example, Freud's system was limited to postnatal biography and the individual unconscious. He was not aware of the paramount importance of birth, except for a short period when he thought birth anxiety might be the template for all future anxieties (Freud 1959). Freud also did not accept the existence of the collective unconscious and tried to interpret archetypal/mythological and parapsychological phenomena in terms of his narrow biological/biographical model. Otto Rank, who discovered the

psychological importance of the trauma of birth, offered explanations of mythological and spiritual/religious motifs that described them as derivatives of perinatal dynamics. C.G. Jung, who discovered and described the vast domains of the historical and archetypal collective unconscious, was unable to see the psychological importance of the birth trauma. In an interview with Dr. Richard I. Evans, he laughingly dismissed Otto Rank's theory: “Oh, birth is not a trauma, it is a fact; everybody is born” (Jung 1957a).

An effective psychotherapeutic system has to recognize and respect all levels of the psyche. The content that is explored and processed, as it unfolds from session to session, is determined by the client's own psychological process and unconscious dynamics. The therapist must have a broad enough conceptual framework to be able to accompany clients to any level of their unconscious psyche – biographical, perinatal, and/or transpersonal and support their respective experiences (Vaughan 1993).

Therapy using the healing potential of holotropic states of consciousness can help us avoid the problem that plagues verbal techniques of psychotherapy: to determine what in the client's narrative is relevant and choose the “correct” interpretation. The alternative that this approach offers actually confirms some ideas about the therapeutic process first outlined by C. G. Jung. According to Jung, it is impossible to derive an effective psychotherapeutic technique from a purely intellectual understanding of the psyche. Jung realized in his later years that the psyche is not a product of the brain and is not contained in the skull. He

started seeing it as the creative and generative principle of the cosmos (*anima mundi*) that permeates all of existence; the individual psyche of each of us is teased out of this unfathomable cosmic matrix. The boundaries between the anima mundi and the individual psyche are not absolute; they are permeable and can be transcended in holotropic states. The intellect is a partial function of the psyche that can help us orient ourselves in everyday situations; however, in and of itself, the intellect cannot fathom the deepest mysteries of existence and comprehend and manipulate the psyche.

Victor Hugo says it beautifully in Les Misérables: "There is one spectacle grander than the sea, that is the sky; there is one spectacle grander than the heavens; that is the interior of the soul." Jung realized that the psyche is a profound mystery and approached it with great respect. He saw it as infinitely creative and knew that it was not possible to describe it by a set of formulas that can then be used to correct the psychological processes of the clients. He suggested an alternative strategy for therapy, one that differed significantly from approaches based on intellectual constructs and external interventions.

What a psychotherapist can do, according to Jung, is create a supportive environment in which psychospiritual transformation can occur. This container can be compared to the hermetic vessel that makes alchemical processes possible. The next step is to offer a method that mediates contact between the conscious ego and a higher aspect of the client, the Self. One of Jung's tools for this purpose was "active

imagination,“ involving continuation of a dream on the analyst’s couch and its analysis *in statu nascendi* (von Franz 1997), rather than retrospective analysis of the dream from memory. This was different from Freud's interpretation of dreams from memories, sometimes months or even years old.

In Jung's own words, ”Active imagination is a process of consciously dialoguing with our unconscious for the production of those contents of the unconscious which lie, as it were, immediately below the threshold of consciousness and, when intensified, are the most likely to erupt spontaneously into the conscious mind ” (Jung 1981). In this kind of work, healing is not the result of brilliant insights and interpretations of the therapist; rather, the therapeutic process is guided from within the client's psyche. The communication between the ego and the Self occurs primarily by means of symbolic language. In Jung’s understanding, the Self is the central archetype in the collective unconscious and its function is to lead the individual toward order, organization, and wholenes. Jung referred to this movement toward highest unity as the “individuation process.“

The use of holotropic states for therapy and self-exploration essentially confirms Jung’s perspective and follows the same strategy. The facilitators create a protective and supportive environment and help the clients enter a holotropic state. Once that occurs, the healing process is guided from within by the clients’ own inner healing intelligence and the task of the facilitators is to support what is happening. This process

automatically activates unconscious material with strong emotional charge that is close enough to consciousness to be available for processing on the day of the session.

In holotropic states, the psyche and the body manifest their capacity to function together as an integral self-organizing and self-healing system. The therapists and facilitators are thus spared the hopeless task of trying to determine what in the client's process is "relevant" and what is merely tangential. They simply support whatever is spontaneously emerging from moment to moment, trusting that the process is guided from within the client by an intelligence surpassing the intellectual understanding which can be obtained by professional training in any of the schools of psychotherapy. Clients and participants in workshops and training might be using terms like COEX systems, BPMs, archetypes, and so on, but this reflects their direct experience of what has spontaneously emerged and not the interpretations of the facilitators.

6. The Role of Spirituality in Human Life

The leading philosophy of Western science has been monistic materialism. Various scientific disciplines have described the history of the universe as the history of developing matter and they accept as real only what can be measured and weighed. Life, consciousness, and intelligence are then seen as more or less accidental side-products of material processes. Physicists, biologists, and chemists recognize the existence of dimensions of reality that are not accessible to our senses – but only those that are physical in nature and can be revealed and explored

by using various extensions of our senses, such as microscopes, telescopes, and specially designed recording devices, or laboratory experiments.

This kind of universe has no place for any kind of spirituality. The existence of God, the concept of invisible dimensions of reality inhabited by nonmaterial beings, the possibility of survival of consciousness after death, and the concept of reincarnation and karma are relegated to fairy tale books and handbooks of psychopathology. From a psychiatric perspective taking such phenomena seriously implies ignorance, unfamiliarity with the discoveries of materialistic science, superstition, and primitive magical thinking. If intelligent persons believe in God or Goddess, they simply have not freed themselves from the infantile images of their parents as omnipotent beings and project them into Heaven or the Beyond. And direct experiences of spiritual realities, including encounters with mythological beings and visits to archetypal realms, are considered manifestations of serious mental diseases – psychoses.

The study of holotropic states has thrown new light on the problem of spirituality and religion. Key to this understanding is the discovery that in these states it is possible to encounter a rich array of experiences very similar to those that inspired the great religions of the world – visions of God and various divine and demonic beings, encounters with discarnate entities, episodes of psychospiritual death and rebirth, visits to Heaven and Hell, past life experiences, and many others. Modern research has shown beyond any doubt that these experiences are not products of fantasy or pathological processes afflicting the brain, but manifestations of

archetypal material from the collective unconscious, and thus germane and essential constituents of the human psyche. Although these mythic elements are accessed intrapsychically in a process of experiential self-exploration and introspection, they are ontologically real, have objective existence. To distinguish transpersonal experiences from imaginary products of individual human fantasy or psychopathology, Jungians refer to this domain as "imaginal."

French scholar, philosopher, and mystic Henri Corbin, who first used the term *mundus imaginalis*, was inspired for this concept by his study of Islamic mystical literature (Corbin 2000). Islamic theosophers call the imaginal world – where everything existing in the sensory world has its analogue – *alam a mithal*, or the "eighth climate," to distinguish it from the "seven climates," or regions of traditional Islamic geography. The imaginal world possesses spatial and temporal dimensions, forms and colors, but these are not perceptible to our senses as properties of physical objects. Yet this realm is in every respect as fully ontologically real as the material world perceived by our sensory organs and experiences of it can be verified by consensual validation by other people. The ontological reality of transpersonal experiences and events is also supported by theories that recognize and emphasize their participatory nature (Ferrer 2002, Tarnas 1991 and 2006).

In view of these observations, the fierce battle that religion and science have fought over the last several centuries now appears ludicrous and completely unnecessary. Genuine science and authentic religion do not compete for the same territory; they represent two approaches to

existence which are complementary, not competitive. Science studies phenomena in the material world, the realm of the measurable and weighable, whereas genuine spirituality and true religion draw their inspiration from experiential knowledge of the imaginal world as it manifests in holotropic states of consciousness.

The conflict that seems to exist between religion and science reflects fundamental misunderstanding of both. As Ken Wilber has pointed out, there cannot possibly be a conflict between science and religion, if both of these fields are properly understood and practiced. When conflict seems to occur, we are likely dealing with "bogus science" and "bogus religion" (Wilber 1982). The apparent incompatibility is due to the fact that either side seriously misunderstands the other's position and very likely represents also a dubious version of its own discipline.

The only scientific endeavor capable of making any relevant and valid judgments about spiritual matters is consciousness research studying holotropic states, since truly informed opinion in this regard requires intimate knowledge of the imaginal realm. In his ground-breaking essay, “Heaven and Hell,“ Aldous Huxley suggested that such concepts as Hell and Heaven represent intrapsychic realities experienced in a very convincing way during non-ordinary states of consciousness induced by psychedelic substances, such as LSD and mescaline, or various powerful non-drug techniques (Huxley 1959). The seeming conflict between science and religion is based on the erroneous belief that these abodes of the Beyond are located in the physical universe — Heaven in the

interstellar space, Paradise somewhere in a hidden area on the surface of our planet, and Hell in the interior of the earth.

Astronomers have developed and used extremely sophisticated devices, such as the Hubble Space Telescope, to carefully explore and map the entire vault of heaven. Results of these efforts, which have of course failed to find God and heaven replete with harp-playing angels and saints, have been taken as proof that such spiritual realities do not exist. Similarly, in cataloguing and mapping every acre of the planetary surface, explorers and geographers have found many areas of extraordinary natural beauty, but none of them matched the descriptions of Paradises found in the spiritual scriptures of various religions. Geologists have discovered that the core of our planet consists of layers of solid and molten nickel and iron and that its temperature exceeds that of the sun's surface – hardly a very plausible location for the caves of Satan.

Meanwhile, modern studies of holotropic states have brought strong supportive evidence for Huxley's insights. They have shown that Heaven, Paradise, and Hell are ontologically real and represent distinct and important states of consciousness that all human beings can experience under certain circumstances. Celestial, paradisean, and infernal visions are inherent aspects of the experiential spectrum of psychedelic inner journeys, near-death states, mystical experiences, as well as shamanic initiatory crises and other types of spiritual emergencies. Patients often tell their psychiatrists about experiences of God, Heaven, Hell, archetypal divine and demonic beings, and about psychospiritual death and rebirth. However, because of their inadequate superficial model

of the psyche, psychiatrists dismiss these experiences as manifestations of mental disease caused by pathological processes of unknown etiology. They do not realize that matrices for these experiences exist in deep recesses of the collective unconscious.

An astonishing aspect of transpersonal experiences occurring in holotropic states of various kinds is that their content can be drawn from the mythologies of any culture of the world, including those of which the individual has no intellectual knowledge. C. G. Jung discovered this extraordinary fact when he studied the mythological motifs occurring in the dreams and psychotic experiences of his patients. On the basis of his observations, he realized that the human psyche has access not only to the Freudian individual unconscious, but also to the collective unconscious, which is a repository of the entire cultural heritage of humanity (Jung 1956, 1959). Knowledge of comparative mythology is thus more than a matter of personal interest or an academic exercise. It is a very important and useful guide for individuals involved in experiential therapy and self-exploration and an indispensable tool for those who support and accompany them on their journeys (Grof 2006).

The experiences originating on deeper levels of the psyche, in the collective unconscious, have a certain quality that Jung referred to as ‟numinosity.‟ The word ‟numinous‟ – first used by Rudolf Otto - is relatively new and neutral and thus preferable to other similar expressions, such as religious, mystical, magical, holy, or sacred, which have often been used in problematic contexts and are easily misleading. The term numinosity applied to transpersonal experiences describes direct

perception of their extraordinary nature which Otto described with the terms *mysterium tremendum et fascinans* and *wholly other*—something that cannot usually be experienced in everyday states of consciousness. They convey a very convincing sense that they belong to a higher order of reality, to a realm which is sacred.

In view of the ontological reality of the imaginal realm, spirituality is a very important and natural dimension of the human psyche and spiritual quest is a legitimate and fully justified human endeavor. It must be emphasized that this applies to genuine spirituality based on personal experience and does not provide support for ideologies and dogmas of organized religions. To prevent the misunderstanding and confusion that have compromised many similar discussions in the past, a clear distinction must be made between spirituality and religion.

Spirituality involves a special kind of relationship between the individual and the cosmos and is essentially a personal affair. By comparison, organized religion is institutionalized group activity that takes place in a designated location, a temple or a church, and involves a system of appointed officials who may or may not have had personal experiences of spiritual realities themselves. Once a religion becomes organized, it often loses the connection with its spiritual source and devolves into a secular institution that exploits human spiritual needs without satisfying them.

Organized religions tend to create hierarchical systems focusing on the pursuit of power, control, politics, money, possessions, and other

worldly concerns. Under these circumstances, religious hierarchy tends to dislike and discourage direct spiritual experiences in its members, because they foster independence and cannot be effectively controlled. In such cases, genuine spiritual life continues only in the mystical branches, monastic orders, and ecstatic sects of the religions involved.

People who have experiences of the immanent or transcendent divine open up to the spirituality found in the mystical branches of the great religions of the world or in their monastic orders, not necessarily in their mainstream organizations. A profound mystical experience tends to dissolve the boundaries between religions and reveals deep connections between them, while the dogmatism of organized religions tends to emphasize differences between various creeds and engender antagonism and hostility.

There is no doubt that the dogmas of organized religions - when interpreted literally - are generally in fundamental conflict with science, whether this science uses the mechanistic-materialistic model or is anchored in the emerging paradigm. However, the situation changes considerably when we examine authentic mysticism based on genuine spiritual experiences. The great mystical traditions have amassed extensive knowledge about human consciousness and about the spiritual realms in a manner that is similar to the critical approach used by scientists in acquiring knowledge about the material world. This includes methodologies for inducing transpersonal experiences, systematic collection of data, and intersubjective validation.

Like any other aspect of reality, spiritual experiences can be subjected to careful open-minded scientific research. Only such unbiased and rigorous study of transpersonal phenomena and of the challenges they present to materialistic understanding of the world can answer the critical question about the ontological status of mystical experiences: Can they reveal deep truth about some basic aspects of existence, as maintained by various systems of perennial philosophy and transpersonal psychology, or are they products of superstition, fantasy, or mental disease, as Western materialistic science sees them?

Mainstream psychiatry does not distinguish between a mystical experience and a psychotic experience and sees both as manifestations of mental disease. In its sweeping rejection of religion, psychiatry also does not differentiate primitive folk beliefs and the fundamentalist literal interpretations of religious scriptures from sophisticated mystical traditions or the great Eastern spiritual philosophies based on centuries of systematic introspective exploration of the psyche. Modern consciousness research has brought convincing evidence for the objective existence of the imaginal realm and has thus validated the main metaphysical assumptions of the mystical world view, the Eastern spiritual philosophies, and even certain beliefs of indigenous cultures.

7. The Importance of Archetypal Astrology for Psychology

The greatest surprise I experienced during more than 50 years of

consciousness research has been to discover the extraordinary predictive power of archetypal astrology. Because of my extensive scientific training, I was initially extremely skeptical about astrology. The idea that planets and stars could have anything to do with states of consciousness, let alone events in the world, seemed too absurd and preposterous to even consider. It took years and thousands of convincing observations for me to accept this possibility – a shift that required nothing less than a radical revision of my basic metaphysical assumptions about the nature of reality. Given the controversy that surrounds this issue, I would not have even discussed astrology in this presentation, had Richard Tarnas not published three remarkable books based on his meticulous ground-breaking research: The Passion of the Western Mind, Prometheus the Awakener, and Cosmos and Psyche (Tarnas 1991, 1995, and 2006).

Over the last 30 years, Rick and I have jointly explored astrological correlations of holotropic states. My main task has been to collect interesting clinical observations from psychedelic sessions, Holotropic Breathwork workshops and training, mystical experiences, spiritual emergencies, and psychotic breaks. Rick's main focus has been on astrological aspects of holotropic states of consciousness. This cooperation has yielded convincing evidence for systematic correlations between the nature, timing, and content of holotropic states of consciousness and planetary transits of the individuals involved.

The first indication that some extraordinary connections might exist between astrology and my research of holotropic states was Rick's realization that my description of the phenomenology of the four basic

perinatal matrices (BPMs), experiential patterns associated with the stages of biological birth, showed astonishing similarity to the four archetypes that astrologers link to the four outer planets of the solar system: BPM I to Neptune, BPM II to Saturn, BPM III to Pluto, and BPM IV to Uranus. I must emphasize that my description of the phenomenology of the BPMs was based on clinical observations made quite independently many years before I knew anything about astrology.

Even more astonishing was the discovery that in holotropic states the experiential confrontation with these matrices regularly occurs when the individuals involved have important transits of the corresponding planets. Over the years, we have been able to confirm this fact by thousands of specific observations and discover further astrological correlations for many other aspects of holotropic states. Because of these surprisingly precise correlations, astrology – particularly transit astrology – has turned out to be an invaluable instrument for consciousness research.

This is a vast and extremely important topic and I cannot do it justice in the context of this paper. Interested readers will find more information in my two articles on holotropic states and archetypal astrology (Grof 2009, 2012), but adequate discussion of these remarkable findings will require a separate volume to be written by a professional astrologer. But I have seen enough evidence in the last 30 years to say at this point a few words concerning my present understanding of the relationship between the timing and nature of holotropic states, spontaneous or induced, and transit astrology.

We have repeatedly seen that the experiences of individuals who enter holotropic states of consciousness seem to be attuned to and informed by the archetypal fields of the planets forming significant transits to their natal charts at this particular time. This selectively activates the COEX system having content with the corresponding archetypal qualities. This COEX then governs the inner experiences, as well as the perception of the external environment. The emerging unconscious material consists of biographical, perinatal, and transpersonal elements carrying these archetypal characteristics, often combined in very creative ways. The depth and intensity of this process depend on the power of the archetypal energies involved and on the number of previous experiences with holotropic states.

While I understand that this brief summary will not have much impact on readers with no previous knowledge of astrology, I hope that it might inspire experienced astrologers to conduct their own research to verify or disprove these observations. We are currently experiencing an extraordinary renaissance of psychedelic research, with several major U.S. universities conducting new studies. Holotropic Breathwork workshops are available in many countries of the world, and spontaneous episodes of holotropic states abound. Those readers interested in verifying or disproving the conclusions made in this paper would thus have ample research material available.

In my opinion, archetypal astrology is the long-sought Rosetta stone of consciousness research. It provides a key for understanding the nature and content of present, past, and future holotropic states, both spontaneous and induced. However, it is important to emphasize that the astrological predictions, while extraordinarily accurate, are archetypically predictive and

not concretely predictive. One of the striking properties of the archetypes exemplified by Richard Tarnas' pioneering research is their complex multivalence. Each archetype and archetypal combination has a rich spectrum of meanings, while at the same time remaining true to its own specific nature. For example, although Saturn and Neptune each have a wide array of meanings, an experienced astrologer would never confuse any essential elements associated with one of these archetypes with those of the other.

The conceptual revisions outlined in this paper — based on my conclusions from more than 50 years of research — bring theoretical clarity to the world of depth psychology and help integrate the diverse positions of its competing schools. They also offer a radically different alternative to the confusing multiplicity of psychotherapeutic techniques employed by these schools, namely the self-healing and self-organizing intelligence of the client's psyche. When the paradigm shift currently occurring in Western science is successfully completed, responsible work with holotropic states incorporating archetypal astrology as a guide might emerge as one of the most promising trends in psychiatry, psychology, and psychotherapy.

When academic circles finally accept the basic tenets of transpersonal psychology, there will be no need for transpersonal psychology as a separate discipline. Since extrasensory access to new information can happen in connection with any category of transpersonal experiences, there will also be no need for parapsychology — a special discipline focusing on a small selection of phenomena where ESP occurs, such as telepathy, clairvoyance, precognition, psychometry, or remote viewing. The

psychology of the future would study the human psyche in its totality and with all its dimensions, infinitely larger than previously assumed and with more extraordinary capacities.

Literature:

Addison, A. 2009. Jung, Vitalism and 'the Psychoid': An Historical Reconstruction. Journal of Analytical Psychology 1:123-42.

Alarcón, R.D. and Frank,J.B. (eds.). 2011. The Psychotherapy of Hope. The Legacy of Persuasion and Healing. The Johns Hopkins University Press.

Bateson, G. et al. 1956. Towards a Theory of Schizophrenia. Behavioral Science, vol 1, 251–264.

Bateson, G. 1972. "Form, Substance and Difference." In: Steps to An Ecology of Mind. San Francisco: Chandler Publications.

Blanck, G. and Blanck, R. 1974. Ego Psychology I: Theory and Practice. New York: Columbia University Press.

Blanck, G. and Blanck, R. 1979. Ego Psychology II: Psychoanalytic Developmental Psychology. New York: Columbia University Press.

Buchanan, J.H. 1994. Universal Feeling: Whitehead and Psychology. A Ph.D. dissertation submitted to the Faculty of the Graduate School of Emory University Graduate Institute of the Liberal Arts.

Buchanan, J. H. 2001. Cosmic Consciousness in A Process Cosmology. Paper for the 86th Annual Congress of the International New Thought Alliance, Harrah Hotel, Las Vegas, NV.

Buchanan, J. H. 2002. Grof and Whitehead: Visions of a Postmodern Cosmology. Helios Foundation, Atlanta, GA.

Buchanan, J. H. 2005. Openness: Spirituality in a Process Psychology. A paper for the Conference on Science and Spirituality, Wuhan, China, October.

Corbin, H. 2000. "Mundus Imaginalis, Or the Imaginary and the Imaginal." In: Working With Images (B. Sells, ed.). Woodstock, Connecticut: Spring Publications 71-89.

Crick, F. 1994. The Astonishing Hypothesis: The Scientific Search for the Soul. New York" Scribner Publishing.

Fenichel, O. 1945. The Psychoanalytic Theory of Neurosis. New York: W. W. Norton.

Ferrer, J.2002. Revisioning Transpersonal Theory. Albany, NY: State Unioversity of New York (SUNY) Press.

Frank, J.D. and Frank, J. B. 1991. Persuasion and Healing: A Comparative Study of Psychotherapy. Baltimore: The Johns Hopkins University Press.

Franz, M. - L. von. 1997. Alchemical Active Imagination. New York: C. G. Jung Foundation Books.

Freud, S. 1959. Inhibitions, Symptoms, and Anxiety. The Standard edition of the Complete Psychological Works of Sigmund Freud, London: Hogart Press. vol. XX.

Goswami, A. 1993. The Self-Aware Universe: How Consciousness Creates the Material World. New York: Tarcher/Putnam.

Goswami, A. 1994. Science Within Consciopusness. Tresearch Report. Sausalito, CA.: Institute of Noetic Sciences.

Goswami, A. 2001. Physics of the Souil: The Quantum Book of Living, Dying, Reincarnation, and Immortality.Charlottesville, VA.: Hampton Roads Publishing Company.

Gibson, L. 1998. Whitehead, LSD, and Holotropic Experience. Paper presented at The Center for Process Studies, Claremont, California, August.

Gibson, L. 2006. Holotropic Breathwork as Process Psychotherapy. Paper presented at the University of Salzburg, International Whitehead Conference, July.

Gibson, L. 2010. Whitehead and Grof: Resolving the Ontological Ambiguity of Jung's Archetypes Metaphysically and Practically. Tatva Journal of Philosophy, Bangalore, India.

Griffin, D. R.1989. Archetypal Process: Self and Divine in Whitehead, Jung, and Hillman. Evanston, IL: Northwestern University Press.

Griffin, D. R. 1996. "Whitehead as a Transpersonal Philosopher." Paper for the Transpersonal and Process Thought Conference, Esalen Institute Big Sur, CA, March 17-22.

Grof, S. 1975. Realms of the Human Unconscious: Observations from LSD Research. New York: Viking Press. Republished in 2009 as LSD: Doorway to the Numinous. Rochester, VT: Inner Traditions.

Grof, S. 1985. Beyond the Brain: Birth, Death, and Transcendence in Psychotherapy. Albany, New York: State University of New York (SUNY) Press.

Grof, S. 1987. The Adventure of Self-Discovery. Albany, New York: State University of New York (SUNY) Press.

Grof, S. and Grof, C. 1989. Spiritual Emergency: When Personal Transformation Becomes a Crisis. Los Angeles, California: J. P. Tarcher.

Grof, C. and Grof, S. 1991. The Stormy Search for the Self: A Guide to Personal Growth Through Transformational Crises. Los Angeles, California: J. P. Tarcher.

Grof, S. 1998. The Cosmic Game: Explorations of the Frontiers of Human Consciousness. Albany, New York: State University of New York (SUNY) Press.

Grof, S. 2000. Psychology of the Future. Albany, New York: State University of New York (SUNY) Press.

Grof, S. 2006. When the Impossible Happens: Adventures in Non-Ordinary Realities. Louisville, Colorado: Sounds True.

Grof, S. 2009. "Holotropic Research and Archetypal Astrology." Archai: The Journal of Archetypal Cosmology, volume 1, Number 1 (Summer)

Grof, S. 2012. "Two Case Studies: An Archetypal Astrological Analysis of Holotropic States in Psychedelic Sessions and Spiritual Emergencies:" Archai: The Journal of Archetypal Cosmology.

Hameroff, S. 1987. Ultimate Computing. North Holland: Elsevier Publishing.

Huxley, A. 1959. The Doors of Perception and Heaven and Hell. Harmondsworth, Middlesex, Great Britain: Penguin Books.

Jung, C. G. 1956. Symbols of Transformation. Collected Works, vol. 5, Bollingen Series XX, Princeton, N.J.: Princeton University Press.

Jung, C. G. 1957a. «Jung on Film.» An Interview with Dr. Richard I. Evans, August 5-8, Switzerland, Zurich. Sehaller Films.

Jung, C. G. 1959. The Archetypes and the Collective Unconscious. Collected Works, vol. 9,1. Bollingen Series XX, Princeton, N.J.: Princeton University Press.

Jung, C.G.. 1960. Synchronicity: An Acausal Connecting Principle. Collected Works, vol. 8, Bollingen Series XX. Princeton: Princeton UniversityPress.

Jung, C.G.. 1981. The Transcendent Function. Collected Works, vol. 8, Bollingen Series XX. Princeton: Princeton UniversityPress.

Kant, I. 1999. Critique of Pure Reason. Cambridge, MA: Cabridge University Press.

Kennell. J. H. and Klaus, M. 1998. “Parental Bonding: Recent Observations That Alter Perinatal Care.” Pediatrics in Review 19:4-2.

Klaus, M., Kennell, J.H. and Klaus, P. H. 1995. Bonding: Building the Foundations of Secure Attachment and Independence. Reading, MA: Addison Wesley.

Korzybski, A. 1931. "A Non-Aristotelian System and Its Necessity for Rigor in Mathematics and Physics." A paper presented before the American Mathematical Society at the meeting of the American Association for the Advancement of Science, New Orleans, Louisiana, December 28.

Kuhn, T. 1962. The Structure of Scientific Revolutions. Chicago, Il.: University of Chicago Press.

Laszlo, E. 1993. The Creative Cosmos. Edinburgh: Floris Books.

Laszlo, E. 1999. The Interconnected Universe. Conceptual Foundations of Transdisciplinary Unified Theory. Singapore: World Scientific Publishing.

Laszlo, E. 2003. The Connectivity Hypothesis: Foundations of an Integral Science of Quantum, Cosmos, Life, and Consciousness. Albany, NY: State University of New York (SUNY) Press.

Laszlo, E. 2004a. “Cosmic Connectivity: Toward a Scientific Foundation for Transpersonal Consciousness. International Journal of Transpersonal Studies, vol.23.

Laszlo, E. 2004b. Science and the Akashic Field: An Integral Theory of Everything. Rochester, VT: Inner Traditions.

Maxwell, G. 2011. Archetype and Eternal Object: Jung, Whitehead, and the Return of Formal Causation. Archai: The Journal of Archetypal Cosmology Volume 3 (Winter).

Mookerjee, A. and Khanna, M. 1977. The Tantric Way. London: Thames and Hudson.

Moon, C., Lagercrantz, H., and Kuhl, P. 2010. Phonetic learning in Utero. The Journal of the Acoustical Society of America, 127, 3, 2017.

Patanjali. 1990. **The** Yoga Sutras of Patanjali (translatd by Christopher Chapple and Yogi Ananda Viraj)**,** Delhi: Sri Satguru Publications.

Quiring, John. 1996. "Transpersonal Psychology and Process Thought." Process Perspectives 20:1 (Summer): 6-7.

Ring, K. and Cooper, S. 1999. Mindsight: Near-Death and Out-of-Body Experiences in the Blind. Palo Alto, California: William James Center for Consciousness Studies.

Ring, K. and Valarino, E. E. 1998. Lessons from the Light: What We Can Learn from the Near-Death Experience. New York: Plenum Press.

Rubinstein, E. A., and Parloff, M.B. (eds). 1959. Research in Psychotherapy. Washington, DC: American Psychological Association.

Satir V. 1983. Conjoint family therapy. Palo Alto, CA: Science and Behavior Books.

Sullivan, H. S. 1953. The Interpersonal Theory of Psychiatry. , New York: W. W. Norton.

Tarnas, R. 1991. The Passion of the Western Mind. Understanding the Ideas That Have Shaped Our World View. New York: Ballantine.

Tarnas, R. 1995. Prometheus the Awakener: An Essay on the Archetypal

Meaning of the Planet Uranus. Woodstock, CT: Spring Publications.

Tarnas, R. 2006. Cosmos and Psyche: Intimations of a New Worldview. New York: Viking Press.

Tart, C. T. 1969. Altered States of Consciousness: A Book of Readings. New York: Wiley.

Teilhard de Chardin, P. 1975. The Human Phenomenon. New York: Harper and Row.

Tomatis, A. A. 1991. The Conscious Ear: My Life of Transformation through Listening. Barrytown, NY: Station Hill Press.

Vaughan, F. 1993. "Healing and Wholeness: Transpersonal Psychotherapy. In: R. Walsh and F. Vaughan (eds.) Paths Beyond Ego: The Transpersonal Vision. Los Angeles: J.P. Tarcher, 160-165.

Watts, A.W. 1961. Psychotherapy: East and West. New York: Pantheon Books.

Whitehead, A. N. 1978. Process and Reality: An Essay In Cosmology: Gifford Lectures Delivered In the University of Edinburgh During the Session 1927–1928. Corrected Edition. Edited by David Ray Griffin and Donald W. Sherburne. New York: The Free Press.

Whitwell, G. E. 1999. "The Importance of Prenatal Sound and Music." Journal of Prenatal and Perinatal Psychology and Health 13 (3-4), 255-262.

Wilber, K. 1980. The Atman Project. Wheaton, Ill.: The Theosophical Publishing House.

Wilber, K. 1982. A Sociable God. New York: McGraw-Hill.