

AWAKENING TO THE FIELD OF CONSCIOUSNESS World's Spiritual Transformation

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Introduction

When embedded in the study of Consciousness and Transpersonal Psychology we tend to focus on theories that try to explain and techniques that try to transform ourselves individually, however, I wonder if we are not leaving aside the need to think and explore theories and techniques that can transform the society within which we live as a whole. Given the possibility that the transpersonal scientific paradigm offers to go beyond common ways of thinking about human nature, I believe it is an opportunity to use transpersonal science to explore ways of connecting personal with social transformation. From my point of view, science should always be in service of social spiritual improvement, although in today's world it seems to me that it is more in service of other types of interests. As I see it, nowadays we are facing a future full of social, cultural, economical, political, military, energetic and environmental challenges that require a multidimensional approach in order for humanity to have a better future¹. But probably the most important one is the challenge of transforming consciousness towards a more spiritual realization which will help humanity to find appropriate solutions to succeed within these important challenges ahead.

In this paper I will explore the concept of "field of consciousness" within current theories and scholars, going through discoveries on quantum physics, parapsychology and transpersonal psychology which constitute the ground in order to build up and understand a "field of consciousness". Lastly I will consider the implications of such a field for social transformation. The main conclusion I have reached is that personal transformation and spiritual awakening help global transformation given the fact that there is a "field of consciousness" through which we are all connected at an unconscious level. In other words, given this collective unconscious, what one person achieves within himself through personal transformation will be helping humanity to move forward in the same direction. So as the number of individuals that awaken to the need for consciousness' transformation increases, the stronger will be the unconscious influence on the whole of humanity. My main interest in researching and exploring this hypothesis is a matter of hope and desire for a better world to live in.

Key words: parapsychology, extended mind, beyond the brain, collective minds, collective unconscious, field of consciousness, entangled minds, awakening, consciousness transformation.

¹ As Ervin Laszlo quotes in his book (2003, p. 26) "A statement signed by 1670 scientists from 70 countries made this point: A great change in our stewardship of the Earth and the life on it is required if vast human misery is to be avoided and our global home on this planet is not to be irretrievably mutilated. The scientists, including 102 Nobel laureates, concluded that a global ethics must motivate a great movement to convince reluctant leaders and governments, and reluctant peoples themselves, to effect the needed changes".

Scientific Framework

Firstly, to affirm that a field of consciousness exists implies that our personal consciousness exists beyond our brain and skull through space and time, and hence it is not a by-product of our brain activity. Such a concept contradicts mainstream neurosciences, psychology and psychiatry, biology and medicine. As a consequence, finding evidence that our consciousness extends beyond our brain will contradict both scientific and conventional pictures of reality, and will require a different scientific paradigm (Kuhn, T., 1970) to be understood². There is no evidence yet that our brain generates consciousness (*i.e.*, for the underlying mechanism). The most we can assume from the neurophysiological studies on consciousness is the valid existence of the *neural correlates of consciousness* and the brain (Dehaene, et al., 2006; Lamme, 2006; Dehaene, & Naccache, 2001; Delacour, 1997). Hence, “the observation that brain function is *associated* with consciousness does not entail that the brain *creates* consciousness” (Laszlo, E., 2004b, p. 108). That’s why as LaBerge and Kasevich puts it, “the special kind of activity in the brain that is presumed to underlie consciousness continues to elude the grasp of our scientific concepts” (2007, p. 1). In my opinion, this is because the type of relationship between the brain and consciousness is not a *bottom up* (the brain as the cause) but rather a *top down* one, where consciousness³ creates the brain and interacts with it; and what we are able to observe with our scientific instruments is just the correlation pattern of activity between both.

Secondly, the premise that consciousness is reducible to brain activity (*i.e.* to matter) implies a materialistic, reductionistic and deterministic worldview of life. This implies a scientific paradigm that is “based on the ontological assumption of separateness and the epistemological assumption that all knowledge is based on physical sense data” (Harman W., 1994, p. 378). In order to integrate the evidence that our consciousness extends beyond our brain and accept the concept of a field of consciousness, a different scientific paradigm it is required. In Harman’s terms, we would require instead of a “Separateness Science” a “Wholeness Science”, based on the “ontological assumption of oneness, unity, interconnectedness of everything, and the epistemological assumption that there are two available “windows” onto reality, namely, the objective, through the physical senses, and the subjective, through the intuitive and aesthetic faculties” (*ibid.*, p. 379-378).

Thirdly, this materialistic, reductionistic and deterministic worldview of science that leads us to a perception of separateness and isolation from others, as well as the Universe, has many destructive effects on our Civilization and Planet (Bohm, 1980, pp. 2-3). As Ashok K. Gangadean explains, “egocentric minding is the primary cause of the fragmentation, dis coherence, incommensurable dualities, and self-alienation that ultimately produce existential and rational pathologies on both personal and cultural levels” (2006, p. 387). Some of these destructive effects at a global scale can be enumerated as: climate change and global warming, wars, genocides, ecocides, the prevalence of violence and fear, religious and political fanaticism, global contamination, extremes of affluence and poverty, decrease of biodiversity, lack of respect for plants, animals, humans and the biosphere, among many others (Barney, G., 1982; Laszlo, E., 2003; Prentice, 2003). As a consequence it calls for a new understanding of Life and the Reality in which we live in order to transform the way we behave with ourselves and others, and be able to shift to a more harmonious way of living on Earth (Gangadean, 2006, p. 382). As Harman puts it, a

² For an excellent discussion on the different approaches to consciousness read Lancaster B.L., 2004

³ When I say “consciousness”, I mean “soul-consciousness”, not the “ego-consciousness” which is really limited.

“wholeness science” would tend to foster a worldview supportive of the highest values of all societies (*ibid.*, p. 391).

Lastly, for the last decades, research in quantum physics, parapsychology and transpersonal psychology have been providing more and more evidence that personal consciousness extends beyond the brain. This evidence supports the concept of “field of consciousness” and, from my point of view, will help this paradigm shift to take place in science and society in the near future. As Ervin Laszlo (2004b) puts it, a society characterised by a transpersonal awareness tends to be less materialistic and egocentric and develops a more empathic relationship with people; likewise, it becomes more sensitive with animals, plants and the whole biosphere.

Consciousness beyond the brain

Under the old paradigm (*i.e.*, mechanistic-Newtonian-deterministic) it is assumed that the “objective” and “subjective” worlds are completely independent. As a consequence a good scientist is one who remains completely independent from the object of study. In other words, the scientist’s mind and consciousness are unable to affect the “world out there”. However, this premise appears to be false due to two main reasons: on the one hand, the scientist projects its personal unconscious in his work (Harman, 1993b, p.139)⁴, and also, the cultural and social environment in which (s)he is embedded has an influence on his/her activity. On the other hand, according to the new paradigm (*i.e.*, quantum physics, holistic science), mind and consciousness are not seen as independent from the physical world, but as the basic structure of it. Hence, the scientist becomes an *active participant* in the “world out there” and is no longer separate from the observed. In other words, the choice made by the observer about how he will act *affects* the physical system that he has acted upon (since only when an observation is made, the probability function of quantum mechanics “collapses” into actualities).

The first evidence that supports this premise goes back in time to 1801 when the British physician and physicist Thomas Young performed his famous “double slit” experiment (Davies P.D. & Brown, J.R., 1986, p. 7), to demonstrate the wave-like nature of photons or electrons. One of the main conclusions that was drawn from that experiment, is that consciousness (the observer) plays an important role in the results of the experiment. This is known as the *quantum measurement problem*. There is no way for the observer to predict whether the photon or particle will be recorded in the photographic plate until the observer looks at the plate⁵. This implies that consciousness plays an important role in our interaction with the “outside world”.

According to quantum physics “prior to an act of observation, the microelements of matter and their properties exist in a state of *superposition*. They cannot be described as waves or particles, but as probabilities of becoming either; they cannot be described as being in one locus or another, but as probabilities of ending up in one or the other. [...] The mathematical formulation of the particle’s potential state is known as the *wave function*.”

⁴ In my opinion, theories and models scientists create with their minds about consciousness (and further about reality), are usually the way they experience and understand themselves. Their intellectual work could be interpreted like an unconscious projection of their own view. So the unconscious plays an important role in scientists’ theories and models (Harman, 1993b, p.139). It is difficult to put so much mental energy (creating books, lectures, articles, etc.) in something that is not connected in a deep level with us.

⁵ For a very clear explanation through a short animation watch here:

<http://whatthebleep.com/trailer/DSDUQT.mov>

Accordingly, at the time of observation there is said to be a *collapse of the wave function*" (Lancaster, B.L., 2004, pp. 116-117). In the double slit experiment, the wave function will collapse when the observer looks at the photographic plate to see precisely where the particle has spotted.

Another important discovery in quantum physics came from the search of Albert Einstein to demonstrate that Heisenberg's principle of uncertainty couldn't be a complete description of the physical reality. Hence in 1935 Einstein, Podolsky and Rosen wrote an article proposing an experiment known as the EPR experiment⁶. Einstein could not imagine what the results were going to be... because they discovered the *non-locality* property, "connections between separated particles that persisted regardless of distance, these are instantaneous and operating 'outside' the usual flow of time" (Radin, D., 2006, p. 14) something that Einstein called "spooky action at a distance" and Erwin Schrödinger, one of the founders of quantum theory, called *entanglement*. In fact, from a recent review on entanglement research published by *New Scientist* in 2004, Michael Brooks concluded that "Physicists now believe that entanglement between particles exists everywhere, all the time, and have recently found shocking evidence that it affects the wider, 'macroscopic' world that we inhabit" (cited in Radin, D., 2006, p. 14).

As is derived from the above, the "objective" reality we assume to be living in, it is not as independent from us as we think it is, and we are not as isolated from others as we believe. If this is true, consciousness is something more than just "*the behaviour of a vast assembly of nerve cells and their associated molecules*" (Crick, F., 1994, p. 3), consequently, we should open the door to accept that consciousness goes beyond our brain and skull through space and time, and interacts with the "world out there". In fact, there is no "world out there" because we are embedded in it, thus there is no real distinction between "in and out".

Taking into account the evidence that supports this premise, we may go back up to the 30's when J. B. Rhine started his pioneering experiments and research on parapsychology at Duke University⁷. However relevant research in psi phenomena began in the 70's, directed by Russell Targ and Harold Puthoff at Stanford Research Institute and funded by government agencies⁸ on remote viewing experiments⁹ and information transmission or

⁶ In such experiment they would try to measure indirectly the position and the speed of one particle (something which should be impossible according to Heisenberg's principle of uncertainty because while observing we modify the observed) from another one. Both particles came out from splitting another one, and as a result both of them will move at the same speed in opposite directions, so what they wanted to measure was the position and speed of one particle from the other one. Actually the real experiment took place in 1982 with Alain Aspect and his colleagues in France, and later repeated in 1998 with Nicholas Gisin at the University of Geneva. In this last case, non-local entanglement of photons was demonstrated over 11km of optical fiber. In 2004 Gisin's group repeated the result over 50 Km.

⁷ Parapsychology origins can be traced back as far as to the eighteenth century and beyond as described extensively and detailed by Dean Radin (2006, p. 52-80).

⁸ As Dean Radin mentions in his book (1997) "Various US government agencies initiated a program at Stanford University Institute (SRI), a scientific think tank affiliated with Stanford University. Several agencies supported the programme like CIA, Defence Intelligence Agency, the Army, the Navy and NASA. In 1990 the entire program moved to a think tank called Science Applications International Corporation (SAIC), a major defence contractor" (p. 193).

⁹ "Remote viewing is set of related protocols that allow a viewer to intuitively gather information regarding a specific target that is hidden from physical view and separated from the viewer by either time or distance. Research suggests that the same processes used to gather spatially non-local information can also be used to gather information that is temporally removed from the observer" (Lee, J.H., 2007, p.1)

telepathy (Targ, R. & Puthoff, H., 1974; Puthoff, H., & Targ, R., 1976; Targ, R. & Harary, K., 1984; Targ, R., Puthoff, H. E., 1996)¹⁰. One might think that if the government has been funding this type of research, remote viewing is not just something that only parapsychologists like to “play” with... as D. Radin puts it:

“Scientists who had worked on these highly classified programs, including myself, were frustrated to know firsthand the reality of high-performance psi phenomena and yet we had no way of publicly responding to sceptics. Nothing could be said about the fact that the U.S. Army had supported a secret team of remote viewers, that those viewers had participated in hundreds of remote-viewing missions, and that the DIA, CIA, Customs Service, Drug Enforcement Administration, FBI, and Secret Service had all relied on the remote-viewing team for more than a decade, sometimes with startling results. How, finally, the history of American and Soviet military and intelligence-sponsored psi research is emerging as participants come forward to document their experiences” (1997, p. 193).

In Lazlo’s article (2004a), *Cosmic Connectivity*, he puts together some interesting experiments and research carried out on psi phenomena demonstrating the non-local properties of consciousness. For example, the work of M.A. Persinger, D., Krippner and M. Ullman (1970, 1989) on *transmission of images while the receiver is asleep*. Over several decades, Stanley Krippner and his associates carried out “dream ESP experiments” at the Dream Laboratory of Maimondes Hospital in New York City. Also the work of Jacobo Grinberg-Zylverbaum (1993) on a particularly striking example of *transpersonal contact and communication* at the National University of Mexico. There are also interesting experiments on *group brainwave harmonization* in which “when the subject enters a meditative state of consciousness, these patterns become synchronized, and in deep meditation the two hemispheres fall into a nearly identical pattern. [...] Experiments with up to twelve subjects meditating simultaneously showed an astonishing synchronization of the brain waves of the entire group” (Olistiche, R., 1992, in Laszlo, 2004a, p. 23).

Other type of experiments provide significant evidence that identifiable and *consistent electrical signals occur in the brain of one person when a second person*, especially if he or she is closely related or emotionally linked, is either meditating or provided with sensory stimulation, or attempts to communicate with the subject intentionally (Benor, 1993; Braud & Schlitz, 1983; Dossey, 1989, 1993; Honorton et. al, 1990; Rosenthal, 1978; Varvoglis, 1986). The phenomenon registered in these EEG correlation experiments its called by Dean Radin as “entangled brains”, and are experiments that have been performed over a dozen times over the past 40 years by independent groups (2006, p. 18). Radin mentions a particular amazing replication of these type of experiments where “not only a significant correlation was observed between two brains, but also that the precise location [visual cortex] in the brain associated with this connection was found”¹¹ (*ibid.*, p. 136).

¹⁰ In a 2003 report, former Princeton University Dean of Engineering Robert Jahn and psychologist Brenda Dune summarized 25 years of remote viewing (they call it remote perception) research (Dunne, D.J. & Jahn, R.G. 2003).

¹¹ The experiment was carried out by Leanna Standish of Bastyr University and her colleagues, using a functional magnetic resonance imaging (fMRI) scanner to correlate EEG activity from a couple. They found a highly significant increase in brain activity (odds against chance of 14.000 to 1) in the receiving person’s visual cortex while the distant partner was viewing a flickering light.

There is also a wide range of different types of experiences that point out that consciousness might go beyond the brain, although it may still interact with it. For example, *out-of-body experiences* (Monroe, R., 1971; Tart, C.T., 1998; Alvarado, C., 2000; Barušs, I. 2003), *near-death experiences* (Almeder, R., 1992; Fenwick, P., 1996; Bailey, L. & Yates, J., 1996; Ring, K. & Cooper, S., 1996; Lommel, P., *et. al.* 2001), *past-life experiences and reincarnation* (Stevenson, I., 1987, 1997; Grof, S., 1998; Mills, A. & Lynn S., 2000), *life after death, communication from the death, mediumistic and channelling experiences* (Moddy, R., 1975; Almeder, R., 1992; Barušs, I., 2003); *telepathy, clairvoyance, precognition, mind-matter interactions or psychokinesis*¹²; *prayer, distant healing and influence; the power of intention; the sense of being stared at* (Radin, D., 1997, 2006; Sheldrake, R., 2003; *McTaggart, L., 2008*). It is also worth considering that psi phenomena has indeed been reported by people in all cultures, throughout history, and at all ages and educational levels (Radin, D., 2006, p. 6).

Among all these experiences and research, I would like to mention one striking research carried out by Kenneth Ring and Sharon Cooper (1999) on near-death and out-of-body experiences. In their work they explore the evidence that even those blind from birth can “see” during these experiences. The way blind people “see” is not akin to how a sighted person might, but an extraordinary mode of knowledge called by them as mindsight. In their words: “this mindsight, which seems to be a form of transcendental awareness, may yet be shown to function independently of the brain but must necessarily be filtered through it and through the medium of language as well” (*ibid.*, p. 186).

In the field of transpersonal psychology and modern research on consciousness we find, for example in Grof (2000, p. 58-59), a very detailed and rich classification of the wide spectrum of transpersonal experiences that supports the premise that we are not “skin-encapsulated egos existing in a world of separate beings and objects” (1993, p. 91). As Grof describes it, consciousness can identify itself with the realms of plants, minerals and animals, with groups of people and can expand to such an extent that it seems to encompass all of humanity. In the extreme forms of transpersonal perception we can experience ourselves as the whole biosphere of our planet or the entire material universe.

Collective Consciousness

Up to now I have summarized some of the background that supports the premise that consciousness may move beyond our brain and skull through space and time, hence it opens up the possibility to consider that a “field of consciousness” could exist. If consciousness can identify itself, according to Grof, with large groups of people, with all of humanity, with the biosphere, with the whole Universe, the hypothesis of a “field of consciousness” through which we are all connected may indeed be possible. According to Maharishi’s theory:

“Collective consciousness is the wholeness of consciousness of the group that is more than the sum of the consciousness of all individuals composing that group. Just as the consciousness of the individual determines his or her thought and behaviour, the collective consciousness of society governs the activity of social life. Thus a level of collective consciousness corresponds to each level of social organization: family, community, city, state, nation and world (Maharishi, 1976: 2, cited in Orme-Johnson, D.W., *et. al.* 1988, p. 778).

¹² It is worth knowing that there is a new scholarly journal (2004) devoted to interdisciplinary research on the mind-matter interaction problem called *Mind and Matter*.

But as before, which is the evidence that supports the idea of a collective consciousness? And where can we trace the roots of it?

In the Eastern tradition, we can trace this concept in the Vedic tradition of India, in the mystical scriptures of Hinduism, the Upanishads, which express the idea of a single underlying reality embodied in Brahman, the absolute Self (Ramakrishna, P., 2004, p. 147). In the Western tradition, we find one of the well known founders of psychology William James whom in 1902 was the first to talk about a "field of consciousness" in his book *The Varieties of Religious Experience*. According to him, this field "lies around us like a 'magnetic field'", a field that "it is impossible to outline with any definiteness", however "helps both to guide our behaviour and to determine the next movement of our attention", he also said that "our whole past store of memories floats beyond this margin, ready to a touch to come in; and the entire mass of residual powers, impulses and knowledge that constitute our empirical self stretches continuously beyond it" (1960, pp. 145-146)

Other founders of contemporary psychology and sociology like Gustav Fechner and Emilie Durkheim (1951, pp. 310, 312-312; Lukes, 1973, p. 4) also proposed theories of collective consciousness almost one century ago. C. G. Jung, one of the greatest psychiatrists and psychologists of the 20th century proposed the concept of collective unconscious, he stated that:

"In addition to our immediate consciousness, which is of a thoroughly personal nature and which we believe to be the only empirical psyche (even if we tack on the personal unconscious as an appendix), there exists a second psychic system of a collective, universal, and impersonal nature which is identical in all individuals. This collective unconscious does not develop individually but is inherited. It consists of pre-existent forms, the archetypes, which can only become conscious secondarily and which give definite form to certain psychic contents". (1968, p. 43).

When Jung says that the content of the collective unconscious pre-exists and is inherited, implies that the information of the archetype is "stored", like in a memory, somewhere beyond the physical realm (the physical body). This means that some kind of "field of information" beyond human psyche is needed in order to understand its existence. As McDougall (1973) pointed out, "such theories will not have a major influence on mainstream psychology until they are empirically testable". (cited in Orme-Johnson, et. al., 1988, p. 778). However, the amount of evidence to support this "field of information" is everyday increasing, as we will see.

The Field of Consciousness

In Sheldrake's words, fields are non-material regions of influence that serve as a medium for 'action at a distance'. Modern field theories are rooted in the work of Michael Faraday, who through his investigation of magnetism came to the conclusion that "lines of force" extended around a magnet (1988, p.97). Fields are all around us (e.g., gravitational or electromagnetic) but we are not able to see them, we just see them by their effects. It is interesting here to bring the concept of "ether" as a field; James Maxwell, in the 19th century, believed that the propagation of light required a medium for the waves called "luminiferous aether".

Interestingly, in the Indian philosophy we find the term *Akasha* (in Sanskrit) which means “ether”, the first and most fundamental of the five elements which *underlies* all things and *becomes* all things. Linked to the *Akasha*, we find the concept of *Akashic Records*, which according to Ervin Laszlo are “the enduring records of all that happens, and has ever happened in the whole of the universe (2004b, p. 76). Thus the *Akashic Records* could be understood as the Memory of the Universe. This idea could be the background to support the concept of C. G. Jung of a collective unconscious or the Maharishi’s theory of collective consciousness, among others who sustain the same idea.

Ervin Laszlo, in his book *Science and the Akashic Field*, puts together the fundamental sciences of life (physics, biology, cosmology and consciousness) to build up An Integral Theory of Everything. He explains that the ancient concept of *Akasha* is in today’s modern sciences known as the *quantum vacuum*. Contrary as thought during the 20th century, “[this] vacuum is far from empty, as we have seen it is an active, physically real cosmic plenum. It conveys not only light, gravitation, and energy in its various forms, but also information; more exactly, ‘in-formation’” (p. 68). The concept of this ‘in-formation’ is not information in the ordinary sense but rather, “a subtle, quasi-instant, non-evanescent and non-energetic connection between things at different locations in space and events at different points in time”. This ‘in-formation’ then links everything in space and time through the non-locality principle.

Laszlo uses the parable of a sea to exemplify the concept of quantum vacuum. When a ship travels on the sea’s surface it creates waves that move through it as does any other ship, object or animal. All of them make waves simultaneously creating a medium full of waves that intersect and interfere. Every ship is exposed to these waves and its path is in a sense ‘informed’ by them. So, as more waves are created, more information is carried in the sea. However, in the quantum vacuum, “the interfering wavefields are natural holograms and they propagate quasi-instantly, and nothing can attenuate or cancel them” (p. 71). Hence, “the quantum vacuum is the holographic information mechanism that records the historical experience of matter” (p. 67). Part of this memory could be the collective unconscious (waves of behaviour recorded as archetypes), and as holographic beings we could inherit this collective historical information and influence our consciousness unconsciously, and thus our behaviour.

It is interesting also to compare the commonalities between the idea proposed by William James one century ago about a “field of consciousness” acting as a magnetic field, impossible to define its boundaries where past memories were stored “floating” in this field, with the modern concept of personal hologram that records our experiences and that our brain can access to by “recalling” the information (Laszlo, 2004b, p. 116). The idea of memory located outside the brain in ones personal field is also explored by Sheldrake (1988, 2003), as we will see later.

Furthermore, when our rationality does not filter out what we can apprehend, “our brain/mind can access a broad band of information, well beyond the information conveyed by our five sensory organs. We are, or can be, literally ‘in touch’ with almost any part of the world, whether here on Earth or beyond in the cosmos” (Laszlo, 2004, p 113). In order to access the information in the quantum vacuum or the Akashic field we need to tune our consciousness in order to resonate with the holograms in this field. When that occurs we access a broad range of information that links us to other people, to nature, and to the universe (pp. 115-116).

As I pointed out earlier, in the Indian Vedic tradition, consciousness is understood as a vast field that constitutes the primary reality of the universe, Brahman. This primary reality of consciousness is also explained by the quantum physicist John Hagelin with the Unified Field Theory. This theory is based on the superstring theories which locate a single, universal “unified field” at the basis of all forms and phenomena in nature, the source of all order displayed throughout the universe (the Planck scale of 10^{-33} cm and 10^{-44} sec) ¹³. Non-local effects could be mediated through the agency of the unified quantum field due to intrinsically non-local structure of space-time at this scale. At this level, the observer and the observed would be found within the same self-interacting dynamics of the unified field; hence it would be formally as much as a field of subjectivity as of objectivity (Hagelin, 1987).

According to Hagelin, this unified field is essentially a field of consciousness as it is the foundation of matter (*ibid.*, p. 68). Individuals can have access to it through meditation (e.g., transcendental meditation) in what it’s called the *hypo-metabolic* state of consciousness. This state is subjectively and physiologically distinct from the waking, dreaming or sleeping states. The body is deeply rested (several times deeper than sleep) while the awareness is alert and subjectively “unbounded”. In this fourth state of consciousness distant regions of the brain become profoundly synchronous in a “global EEG coherence”. In this state the individual gains access to the unified field and experiences the underlying field of individual and collective consciousness (*i.e.*, pure consciousness) creating an impulse within this field that has a measurable beneficial effect upon the surrounding society.

Foremost, when groups of individuals in close physical proximity reach this state of consciousness, they have a much larger societal influence, causing a measurable increase in EEG coherence in the surrounding social environment and highly statistically significant drops in crime, terrorism, warfare, and other indicators of societal stress and incoherence. The intensity or power generated by the group grows as the square of the number of participants (N^2). This means that a relatively small number of individuals are needed to precipitate a global effect. This phenomenon has been called the Maharishi Effect (by the first investigators to study it: Borland and Landrith, 1976), as a technology developed by Maharishi Mahesh Yogui the founder of the Transcendental Meditation.

During August and September of 1983 one social experiment took place to test the Maharishi effect (Orme-Johnson, D.W., *et. al.*, 1988) in Jerusalem. The aim was to reduce the stress in the collective consciousness and behaviour of Israel and Lebanon. This study showed that when the number of participants in the Maharishi Effect was high, war deaths in neighbouring Lebanon dropped by 76%. These results were replicated in seven consecutive experiments over a two-year period during the peak of the Lebanon war. Another experiment took place in 1993 in Washington, D.C. from June 7 to July 30 to reduce crime and social stress. After the start of the study, violent crime (measured by FBI Uniform Crime Statistics) began decreasing and continued to drop until the end of the experiment with a maximum decrease of 23,6%, after which it began to rise again (Hagelin, J.S., *et. al.*, 1999). According to Hagelin, more than 50 demonstrations projects and 23 published scientific studies have shown the effectiveness of this technology ¹⁴.

¹³ John Hagelin’s article, found in http://proposal.permanentpeace.org/print_friendly/foundation.html

¹⁴ Those scientific papers can be found in the Maharishi University of Management: www.mum.edu/m_effect/summary_table.html

Another fascinating project on the “field of consciousness” is the so called “**Global Consciousness Project**”. In the mid 1990s the psychologist Roger Nelson initiated at Princeton University a series of experiments to test the mind-matter interaction hypothesis. In order to do so he used with his colleagues an electronic Random Number Generators (RNG), a device designed to generate pure randomness, technically known as *entropy*. According to Radin, consciousness has six properties, among which the second one is that “consciousness injects *order* into systems in proportion to the ‘strength’ of consciousness” and the sixth one “physical systems of all kinds respond to a consciousness field by becoming more ordered. The stronger or more coherent a consciousness field, the more the order will be evident” (1997, p.160). Then, in order to detect this *ordering* effect, it is required a labile system like the RNG which generates entropy. Changes in order can be easily detected because under ordinary conditions, and by definition, a random system on average has zero order. If order does appear, it can be detected immediately using fairly simple statistical methods (p. 161). In this basic field consciousness experiment, the fluctuations of group’s attention and the fluctuations in the behaviour of one or more RNG are measured at the same time.

In the late 1997, Roger Nelson took up the challenge and with assistance from John Walker, the founder of AutoDesk, the computer-aided design company, and computer scientist Greg Nelson, devised a clever architecture to support an Internet-based, worldwide, continuously running field consciousness experiment. This experiment has been called The Global Consciousness Project (GCP). By April 2005 more than a hundred field experiments had been reported, and the network included about 65 active RNGs¹⁵ located mostly throughout Europe and North and South America, but also in India, Fiji, New Zealand, Japan, China, Russia, Africa, Thailand, Australia, Estonia, and Malaysia.

For example, on September 11, of 2001, two hours before the plane crashed into the World Trade Tower in New York, the curve of randomness deviated wildly compared to all the other days examined. In fact, “the huge drop in this curve within an eight-hour period was the single largest drop for any day the year 2001” (2006, p. 203). The GCP strongly suggests that coherent group activity is associated with unusual moments of order in RNG outputs. As stated in Radin’s book:

“From August 1998 through April 2005, 185 events have been evaluated. The overall results show a clear deviation from chance, with odds against chance of 36,400 to 1. This suggests that when millions to billions of people become coherently focused that the amount of physical coherence or order in the world also increases. These moments of unusual coherence would not just be limited to RNGs, but would affect everything. That is, presumably every animal, plant, and rock would behave slightly differently during moments of high global coherence” (2006, p. 198).

To my mind, it becomes clear now from the above approaches and examples that our personal consciousness extends beyond our skull and brain through space and time and is entangled with other consciousness, so belonging to a wider collective consciousness. However, in my opinion, they are not really theories about a “field of consciousness” but rather they establish the ground with quantum physics (*i.e.*, unified field or quantum vacuum) and consciousness properties (*i.e.*, psi phenomena, transpersonal experiences) on

¹⁵ “Each RNG in the GCP network is attached to a computer that collects one simple (of 200 bits) per second. The sources of randomness in the RNGs include electronic noise in resistors and quantum tunnelling effects in diodes” (Radin, D. 2006, p. 196).

which to build up a theory of the “field of consciousness”. It seems to me that Rupert Sheldrake’s Morphic Fields theory has the greatest explanatory power.

Sheldrake is a British biologist that believes that every natural system is associated with a field of information a “morphic field” that interacts with observable matter. Morphic fields organize the structure of natural systems as well as their patterns of activity. The origin of his theory arose, as a result of researching the mysterious process of morphogenesis (*i.e.*, the process of coming into being of form)¹⁶. According to him, this process can be explained by morphogenetic fields, fields as physical as the gravitational, electro-magnetic or quantum fields, that “shape and organize developing micro-organisms, plants and animals, and stabilize the forms of adult organisms, and each kind of cell, tissue, organ, and organism has its own kind of field” (p. 108). The process of development of organisms and their inherited characteristics is then understood not just as the expression of the genes through the synthesis of proteins, but also by inheritance of morphogenetic fields. Sheldrake calls this process of morphogenesis through fields, the “hypothesis of formative causation” (p. 107).

In order to widen the concept of morphogenetic fields, Sheldrake considers that *morphic fields* is a more appropriate term because it includes other kinds of organizing fields in addition to those of morphogenesis. It includes for example, fields for minerals, plants, animals, human behaviour and mental activity as well as social and cultural systems. It is important to briefly summarize the main characteristics of these fields in order to understand further explanation:

(1) as I’ve said before morphic fields (MF) are as physical as any other field, and can be regarded as fields of information (2) they represent a kind of pooled or collective memory of the species, and each specie has its own, (3) each member of the species is moulded by these species fields, and in turn contributes to them influencing future members of the species, (4) MF work by morphic resonance, which involves a kind of action at a distance in both space and time, and this influence does not decline with distance in space or in time, they are non-local, (5) morphic resonance (MR) takes place on the basis of similarity, the more similar an organism is to previous organisms, the greater their influence on it, and the more such organisms there have been, the more powerful their cumulative influence, (6) MR does not involve a transfer of energy from one system to another, but rather a non-energetic transfer of information, (7) MF have the property to be holographic, where the part contains the whole, (8) they are organized in nested hierarchies which means that there are levels upon levels of morphic fields within fields, within which they are embedded, (8) MF may in some sense be akin to quantum fields which would suggest that they are intrinsically probabilistic, (9) MF are conscious and have intelligence, and as higher the level more conscious it is (1988, p. 108-114; 1997a).

Sheldrake describes extensively many examples of formative causation both in living and non-living organisms. However, two striking cases of the effects of morphic fields and resonance on living organisms are (1) the inheritance of acquired characteristics in fruit-flies and, (2) the acquired new habits of birds. Regarding the first one, in the 1950s several series of experiments were carried out with these flies in Waddington’s laboratory. The developing flies were subjected to abnormal stimuli, and as a consequence some developed in characteristically abnormal ways (1988, p. 141). The conclusion of these

¹⁶ As Sheldrake points out, “the question of form has been discussed by Western philosophers for well over two thousand years, and the same kinds of arguments have reappeared century after century and are still alive and well today” (1988, p. 59)

experiments was that inheritance could really take place without any transfer of genes at all: fruit-flies from the same strain hundreds of miles away developed abnormally characteristics without inheriting any modified genes and without any means of communication (p. 146).

Regarding the second case, there is a well documented example of the spontaneous spread of a new habit concerning the opening of milk bottles in Britain by birds. They opened the caps on bottles that were delivered to doorsteps early in the morning and drink as much as two inches of milk from the bottles. The first record of this habit was from Southampton in 1921, and its spread was recorded at regular intervals from 1930 to 1947. Once discovered by the birds (mainly great, coal and blue tits) in any particular place, the habit spread locally. It is known that tits do not usually venture more than a few miles from their breeding place, however, the habit spread through Britain, Sweden, Denmark and Holland (p. 177-181).

These two examples show that, within each species of insects and animals there is some kind information communication that goes beyond space and time, and morphic fields provides a useful theory to understand it. But the most interesting of all, to the matter of this paper, is **morphic resonance in humans**.

In order to do so, we need first to approach Sheldrake's concept of the "extended mind" versus the "contracted mind". The later, in his terms, "is the view of the 17th century that our minds are not only rooted in the brain but actually located in the brain" (1987b, p. 2), whereas in the extended mind, ours extend both in space and time, and with other people's minds and with group or cultural minds. The extended mind allows understanding most of the psi phenomena (2003). Sheldrake suggests that *the brain is more like a tuning system rather than a memory storage device*, and he compares the TV with our brain both as receptors of information (1997, p. 4). Then, when considering morphic resonance in humans, our brains will tune into the morphic field of the collective memory to which we are all in contact. This idea is very similar to the notion above expressed of the collective unconscious and collective consciousness. Indeed, according to Sheldrake, morphic resonance theory is a radical reaffirmation of Jung's concept of collective unconscious (*ibid.*, p. 6). When we apply morphic resonance to human learning, we observe that as more people learn something new, easier it becomes to learn it for those that come after.

One interesting experiment that exemplifies the above was carried out by Arden Mahlberg, an American psychologist who constructed a new version of the Morse code by reassigning the dots and dashes to different letters of the alphabet. Using subjects who did not know Morse code, he compared their ability to learn this new code with their learning of the genuine one. The subjects were exposed to the new code and the genuine one after the other, in random order, for equally brief periods. Mahlberg found that, on average, subjects learned the real Morse code significantly more accurately than the new code. However, in subsequent tests with new subjects, he found that the average accuracy of learning of the new code progressively increased until it was learned almost as well as the real Morse code (1988, p. 194). *It becomes clear from this example, that as more people learn something new, less time is required for those that come later to learn it, as well as the reality of the collective memory to which we are all unconsciously connected and nurtured.*

Before concluding this section, it is worth considering "Family Constellations" as a really powerful example of family morphic fields and morphic resonance. As Cohen express it: "the method is distinguished from conventional psychotherapy in that (a) the client hardly speaks and (b) its primary aim is to identify and release pre-reflective, trans-generational patterns embedded within the family system, not to explore or process narrative, cognitive or emotional content" (2006, p. 226). To do so, the client selects from a group of people those who feels are representatives of his family members and places them in a room like a scenario of characters. The most amazing phenomenon is that those acting as if, really feel and act as if they were the real members of the family system. Through a family constellation, "the representatives tune into the resonance of the family field, accessing kinaesthetic and emotional data" (Laszlo, 2004; Sheldrake, 1995; cited in Cohen, p. 230). By doing so, "the hidden systemic dynamic comes into clear view" (p. 230) "emerging spontaneously from the constellation itself" and it is recognized that "any given symptom was part of a larger tableau that connected not only to members of the immediate nuclear family but also to members of the past and future generations" (p. 299). Once the process it's finished, what has been worked out in the constellation affects the real family members "altering the meanings of past events and reconfiguring the family system" (Cohen, p. 229). I have experienced a family constellation myself, and I was astonished that those I choose were really feeling and acting as if they were my real family members, even who represented me!

Gaia: Earth as a Living Organism

The Gaia hypothesis was first formulated by James Lovelock in the 1960s in which the Earth was the largest living organism (1989, 2000, 2006). According to him, our planet is a living organism capable of self-organizing and maintaining life on it. The name of Gaia comes from the ancient deity, Gaia, the Greek goddess of the Earth. This hypothesis produced a lot a controversy and it has been rejected by many scientific circles, however, since those days, it seems that today the idea of the Earth as a living organism is more accepted. Recently, in the 1990s the Russian astrophysicist Dr. Vladislav Lugovenko, has been measuring what he calls "The Breathing of Earth" through the Cosmo-Terrestrial Field. He states that the Earth is not at all an inert but a living entity (1999, 2003). If the Earth is a living system, how must do one of the fundamental processes of life, breathing? According to him, "this breathing consists of all possible methods of receiving, processing and obtaining energy from external space through a complete system of grids and chakras of different calibres", it is also called "the temporary variations of a Cosmo-Terrestrial field". During the past decade, Lugovenko has revealed that not does only the Earth breathe but it is affected by events in the Cosmos and by human thought. Indeed, he has shown that "the breathing of the Earth is responsive to human intention; that humanity, through his thoughts and prayers radically impacts the Earth" (p. 4-5).

In a similar way as the results obtained from The Global Consciousness Project, during three peace meditations¹⁷, "strong vibrations arose in the Cosmo-Terrestrial field which noticeably influenced the breathing of the Earth" (p. 7). Different devices in different places were used to measure this Cosmo-Terrestrial field, one of those was carried out by

¹⁷ One at the World Summit on Peace and Time in June 22-27 of 1999 in Costa Rica, the second a World Peace Meditation in Baghdad on October of 2002 and the third one in Moscow February 2003,

the scientist Richard Benishal, who was taking readings with a Biometer¹⁸. He said that during the meditation in Moscow of 2003, got the highest reading he has ever seen¹⁹.

The point of bringing the notion of the Earth as a living organism has two reasons, firstly, to show again that our consciousness and thoughts have an effect on the surroundings, in this case the interaction with the so called Cosmo-Terrestrial field (*i.e.*, the Earth), but secondly and foremost, due to the interdependence of all life, we, as human beings and individuals, need to *wake up* to this interconnectedness of everything and realize our responsibility from what we think and feel, to what we say and do in order to shift to a more harmonious way of living on Earth. As St. Clair puts it: “psychological (psychic) pollution is equally, if not more harmful to this world that physical pollution. The negativity, fears, sorrows, conflicts and angers we create and power out every day with our minds is similar to radioactive waste” (2005, p. 96).

An Integral Awakening for a True Social Transformation

What is the main purpose of putting all this knowledge together, or even the knowledge and evidence itself of a “field of consciousness”? In my opinion knowledge should always be in service of social spiritual transformation. We have reached a stage in our human civilization that a shift in consciousness is needed urgently if we want to survive as species. To my mind, *technological development without spiritual development equals self-destruction*, because then technology is used in an egocentric and selfish way that leads us to a profound social and planetary crisis. Without spirituality, Life is reduced to Matter, and then nihilism and human alienation comes in because we lose our spiritual and cosmic origin. We forget who we are and by doing so, we disconnect ourselves from our inner wisdom, natural love and compassion that is within all beings wherever they are. As a substitute, we assume that we are what we do and what we have, placing outside the answer to the question, who am I really? As Ashok Gangadean says:

“This awakening of global consciousness is nothing less than a shift, a maturation, from more egocentric patterns of life to a higher form of integral and dialogic patterns of life. In this drama it is seen that egocentric patterns of minding and living directly lead to fragmentation, alienation and human pathologies at the individual and collective level. The great spiritual traditions have long seen that the key to our survival, sustainability and flourishing turns on our conscious evolution into a dialogic patterns of life which bring forth our true moral, rational and spiritual nature as species” (2004)

To my mind, an integral awakening is two fold, (1) reconnecting again to our true inner spiritual dimension, in Welwood’s terms: “waking up from unconscious tendencies, beliefs, reactions, and self-concepts that function automatically and keep us imprisoned in a narrow view of who we are and what life is about” (2000, p. 299); and (2) becoming completely aware of the *collective shadow* and *real* dangers and problems that we are facing as humanity. In C.G. Jung words “one does not become enlightened by imagining

¹⁸ A Biometer is a device that measures the vitality of life-force of a person or a place in angstrom units. Angstroms are units of light that all living beings and physical places emit. If there is disease or low energy, the Biometer registers a low reading, with the opposite for high energy.

¹⁹ According to Lugovenko’s article, Benishal said that a neutral reading World normally be around 6500 angstroms, but that he has seen readings as high as 7000 after powerful meditations have taken place in an area. However, the reading for the are of the vigil’s focus was between 9000 and 9500.

figures of light, but by making the unconscious conscious". And this is also applicable to the collective shadow.

Here is when all this knowledge on the "field of consciousness" comes in because we realize that we are not isolated individuals in a collective mass of people, but rather we are entangled and part of this collective consciousness, knowing that we are co-creators with our intention of our own personal and collective reality because, as we have seen, consciousness constitutes the primary reality of the universe. As more spiritually awakened we become, and more aware we are of our influence (by morphic resonance) on the collective mind (through the morphic field), the more the feeling of self-empowerment will increase, and the stronger our sense of purpose to help others as best we can will be. In other words, we will feel responsible to spiritually evolve to a higher level of consciousness and inner coherence in order to help this collective consciousness to evolve and ascend as well. As Sheldrake said: "because all members of a species influence these fields, their influence is cumulative: it increases as the total number of members of the species grows" (1987, p. 109). Hence, as more people awake to the spiritual dimension and get transformed by the experience of awakening, more people in the world will awaken and get transformed, illuminating the collective shadow and making it conscious, which means losing its power on us and becoming more integrated beings. This indeed will help us to successfully overcome the challenges ahead.

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