

**REVIEW OF DUŠAN JANJIĆ'S BOOK  
"RADIATIONS – FACTS AND MYTHS" (BELGRADE, 2005, IN SERBIAN)**

Before the reader there is a very first book of Dušan Janjić, BSEE, a specialist in electronics and electrical measurements, with a long-standing practical experience in these fields, who was also got acquainted with geopathogenic radiation and radiestasy in a past ten years, wherein he received significant measuring experiences as well. This has motivated him to write this unusual book - which represents a trial to synthesize knowledge about various natural and artificial radiations, harmful and useful, and their physical-technical and radiestestic measurements and ways of protection from them, with applications in medicine and complement (quantum) holistic medicine. The book is written soberly, with author's firm conviction in necessity of introducing both specialists and non-specialists with facts and myths about radiations, as well as in objective existence, harmfulness and necessary protection from geopathogenic radiation.

Science has learned a lot about nature of electromagnetic fields and radiations and their interaction with matter, which provided a fantastic development of electrical engineering, from electroenergetics to transportation, across electronics, electrical measurements, automatics, till telecommunications and computer engineering. This list should be also completed with explosive development of multidisciplinary biomedical technique – but with notice that there is still a lot of ignorance in the area of biophysical interactions of ultra-weak electromagnetic (EM) fields with biological species – with deliberate tendency to marginalize these influences (partly because of strong lobbies in electroenergetics and mobile telecommunications, and partly because of insufficient willingness of pharmacologically oriented medicine to consider seriously multi-millennia experiences of Eastern traditional complementary medicine, based on weak (quantum) holistic interactions of the energetic-informational acupuncture system with the environment).

I have met the author of this book several years ago, and in the meantime through periodical meetings I have obtained opportunity to get acquainted with his measurements and experiences in the areas mentioned above – and when he has told me that he intends to write such a book I strongly supported him in this enthusiastic-pioneered trial, with warning to be cautious in formulations, because of insufficiently defined scientific field, and that it is necessary to insist on objectification and reproducibility of (radiestestic) measurements as much as possible.

Quite aware of all these risks – and to alleviate them – I have offered to him my referee's help, having in mind my long-standing scientific experience in theoretical (quantum) holistic modelling of the relationship of consciousness and energetic-informational acupuncture system and their role in the weak thresholdless energetic-informational interactions with environment – with significant holistic psychosomatic and cognitive implications – which will be considered in more details further on.

***Macroscopic quantum effects in biophysics: acupuncture system, consciousness and psychosomatics.*** Theoretical predictions of our biophysical quantum-relativistic/quantum-holographic model of altered and transitional states of consciousness [1-6] imply an ionic nature of the *qi* entity of the Chinese acupuncture system [1,5] (with possibility of its partial displacements from the skin surface in these states, when the displaced part of ionic acupuncture structure would have a function of a quantum-holographic sensor [2] closely related to consciousness, as reported in different transpersonal interactions [7]; on the other hand, fundamental-theoretical reasons for this out-of-body displacement of consciousness lies in necessity [2] that *consciousness* must have at least in (quantum-coherent) *altered/transitional states* the sufficiently isolated relevant macroscopic degrees of freedom – in order to have in-deterministic characteristics of *free will* – which is otherwise *not possible* in the strongly-coupled bodily environment which causes quick quantum decoherence of consciousness into (classically-reduced) *normal state* [8], we shall consider in more details later on).

In this framework, the positive ions have catabolic influence (*yang*) and flow predominantly through the right circulatory part of the acupuncture system, while the negative ions have anabolic

influence (*yin*) and flow predominantly through the left circulatory part of the acupuncture system [1,5], and therefore the role of acupuncture stimulation might be the balancing of activity of the positive and negative ions within the body, corresponding to normal healthy condition. This also implies the significance of *aeroionic balance* [1,5,6,9,10] and regular rhythmical breathing, recognized in Indian tradition: according to *swara yoga* [10] the rhythmical breathing through nose is especially important, in order to inhale as many as possible aeroions (*prana*) within the two (of three) most significant *nadis* (the left *ida* and the right *pingala*), with their entrances in corresponding nostrils. This is recommended in fresh and nonpolluted air, when even some excess (25%) of negative ions exists, with the relaxing healthy influence on the body; in the same context, in closed environments a *microclimate engineering* can be recommended by applying aero-ionizers which produce an excess of negative ions.

According to the biophysical model of *altered states of consciousness* [1,3], dreams and related hallucinogenic states are characteristics of the low-dielectric altered states of consciousness with displaced part of ionic acupuncture system, characterized by relativistic mixing of normally conscious and unconscious contents, and extremely dilated subjective time base (as the subjective reference frame of consciousness is postulated to be related to electromagnetic field of brainwaves in the non-homogeneous parts of biophysical ionic structures). Therefore, the role of *dreams* is integration of normally conscious and normally unconscious contents, giving rise to integration of human personality around healthy associative memory ego-state, which results in growth of personality and alleviation of emotional conflicts. On the same grounds, *meditation*, as a prolonged altered state of consciousness, enables more efficient *integration of personality*; however, in the case of persons with strong psychological conflicts, who bear strong conflicting associative memory states alongside with the healthy associative memory ego-state, the result of prolonged meditation might be integration of personality around these associative memory states, with a harmful result of a divided (instead of fully integrated) personality. Theoretical modeling of cognitive processes [3] also accounts for excellent prophylactic characteristics of *autogenic training* [11], as the most contemporary method of medical relaxation [12] which helps *contextual messages* to be associatively memorized at the subconscious level, from where they contribute to *softening of undesired psychosomatic reactions* to everyday stressing situations, although the practice reveals that this mechanism is not sufficiently efficient for persons with strong psychological conflicts too. For such persons, the main priority is *resolving of their psychological conflicts by some psychotherapeutic practice* (oriented to *recognition of the origin of unconscious conflict* and its ascending to conscious level, diminishing corresponding unconscious conflicting associative memory state, which enables *further integration of personality* around healthy associative memory ego-state), or some *meridian (psycho-energetic) therapy* [13] (with very fast removing of persistent phobias, allergies and other psychosomatic disorders, through a "smearing" of memory attractors of the psychosomatic disorders during *successive tapping/touching acupuncture points* alongside with *visualization of the psychosomatic problems*, owing to successive imposing new boundary conditions in the acupuncture energy-state space [2]), or *transpersonal Christian/religious technique* (with probably essential transpersonal aspect of psychological conflict and necessity of its simultaneous *transpersonal* reprogramming in all persons involved, contributing to its *radical and final reprogramming* at the level of spatio-temporal associative memory network of *collective consciousness*, which seems to be only possible through *prayer in transitional states of consciousness*) [2,4,5].

Besides its practical medical aspects, Chinese (and Indian) traditional medicine is deeply colored with mystical connotations, which was one of the reasons why Western science has been hardly accepting experiences of Eastern tradition. The second reason was that within the 12 visceral organs corresponding to the 12 paired meridians, Chinese tradition has not included the brain and endocrine glands: however, in the past few decades it was found that the acupuncture system was in close functional interaction with both central nervous system and endocrine system, as well as with peripheral and autonomous nervous systems [5,6,14]. The final reason was a lack of clear

anatomical basis of the Chinese acupuncture system: however, new investigations of specific intercell channels (so called *gap junctions*, an evolutionary older type of intercell communications, transporting ionic electrical signals between excitable cells, whose conductivity can be modulated by intracellular pH-factor,  $\text{Ca}^{2+}$ -ions, neurotransmitters and second messengers, and even by voltage [15]) have shown their significantly increased concentration inside the acupuncture points [16].

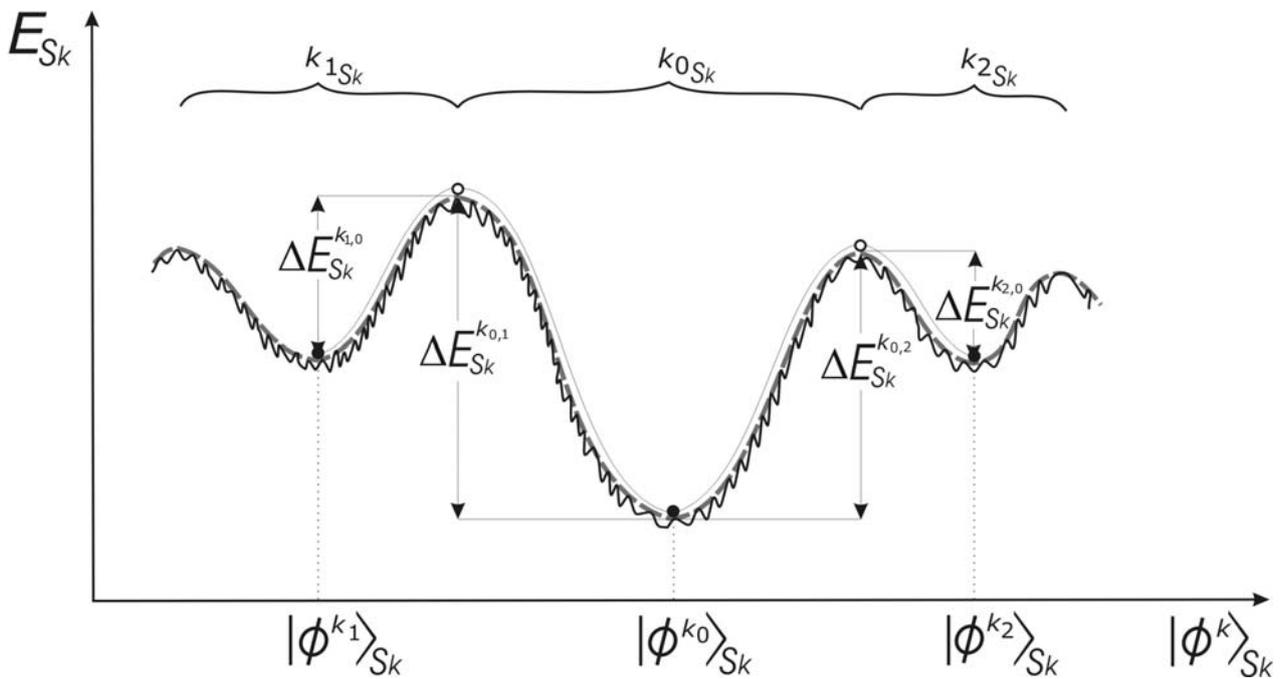
A better organization of cell structures and an *ionic basis* of the qi entity of the acupuncture system is also suggested by ~ 10 times higher skin electrical conductivity of the acupuncture points in respect to the surrounding tissue, as well as much higher reabsorption of aeroions in these points [14]. Ionic acupuncture currents, and accompanying EM fields, have *ultra-low-frequency* (ULF) and *microwave* (MW) components, i.e. the MW component is modulated by the ULF component [1,5,6], this being in overall agreement with the frequency and power windowing in tissue interactions with weak EM fields [17]. In support to the ULF nature of ionic currents in acupuncture channels, one can cite the resonance ULF stimulation of the acupuncture analgesia endorphin (at ~ 4 Hz) and serotonin and/or norepinephrine (at ~ 200 Hz) mechanisms, as well as the efficiency of the German school of the resonance ULF therapy [18]. On the other hand, the evidence for the MW component of ionic acupuncture currents is provided by resonant MW (~ 50-80 GHz) therapy [19], efficient even in very serious diseases, implying that acupuncture system is a dynamic structure differentiated at the locations of maxima of three-dimensional standing waves, formed as a result of the reflection of coherent microwave (~ 100 GHz [20]) *Frohlich excitations* of molecular sub-units in the cell membranes, proteins, microtubules etc. - supported also by other investigations which have demonstrated that differentiation of gap junctions (of higher density at acupuncture points) is slightly sensitive to voltage [15]. In that context the explanation for efficiency of the *microwave resonance therapy* (MRT), as noninvasive non-medicamentous medical treatment, should be sought [5,6]: some disorders in the organism give rise to deformation in the standing wave structure of electrical field of the organism in MW region, which influences corresponding changes in spatial structure of the acupuncture system, and consequently resonant frequencies of its meridians, resulting in some disease; during the therapy, applying the MW sound at corresponding acupuncture point the excited acupuncture system of the patient is relaxing to the previous healthy condition, while reaching its normal resonant frequencies responses upon the wide spectrum MW source - and following to physiological mechanisms of the acupuncture regulation [14] the organism biochemically overcomes the disease.

At the same time this presents an explanation [1,5,6] for the sensitivity of the organism on the influences of extremely weak external (MW)RF/ULF EM fields [16] – which is also the subject of *radiesthetic measurements* – via EM induction within EM/ionic circulatory acupuncture system, thus modulating acupuncture currents by external EM fields, without any limitations by threshold potentials which do not even exist within gap junction electrical synapses of the acupuncture system [15,16].

The *quantum-like coherent characteristics* of the MRT (sharply-resonant sensory response of the disordered organism, extremely low-intensity and low-energy non-thermal biologically efficient MW electromagnetic radiation, and negligible MW energy losses down acupuncture meridians) should be also pointed out [19]. And as recent investigations show that any quantum system has formal mathematical structure of *quantum-holographic Hopfield-like associative neural network* [21] - then (acupuncture-meridian temporary-reprogrammable) *memory attractors of the quantum-holographic acupuncture-meridian network* can be treated as *psychosomatic individual disorders* representing EM MW/ULF modulated (*quantum*) *holistic records* (cf. Fig. 1) - which might represent biophysical basis of (acupuncture *temporary-reprogrammable!*) (*quantum*) *holistic local psychosomatics* [1,2,4,5]! Namely, according to *Tibetan traditional medicine*, an acupuncture procedure must be repeated every several months [22] - presumably as a consequence of *restituted* patient's mental loads from his *mental-transpersonal-environment* of closely related family members and enemies, that remained *non-reprogrammed* on the level of quantum-holographic collective consciousness [2], which might be supported by Tibetan pulse diagnostics based on 20

pulses, enabling precise diagnosis of psychosomatic disorders not only of the patient himself but also of his family members and enemies.

At the same time, the mentioned analogy between mathematical formalisms of *Hopfield's associative neural network* and *Feynman's propagator version of the Schrödinger equation* implies that *collective consciousness* is possible *ontological property of the physical field itself* [1-5] with various micro-quantum and macro-quantum (both non-biological and biological) excitations, which is widely spread thesis of *Eastern esoteric/religious traditions* [23] - and then *memory attractors of the quantum-holographic space-time network of collective consciousness* might be treated as *psychosomatic collective disorders* representing (*quantum*) *holistic field records* (including interpersonal hesychastic-prayer finally-reprogrammable loads [1,2,4,5,24]!) – which might represent biophysical basis of (*quantum*) *holistic global psychosomatics* [1,2,4,5] (cf. Fig. 1) – with religious/social implications on necessity of transpersonal spiritual quantum-holographic removing of all unwilling side memory attractors (which non-reprogrammed by prayer will unless cause psychosomatic diseases and interpersonal fights in this and/or further generations they are transpersonally and unconsciously transferred to, on the level of collective consciousness).



**Figure 1.** Schematic presentation of the memory attractors of microwave (MW/dashed line) ultra-low-frequency (ULF/full line) modulated EM/ionic quantum-holographic acupuncture system/consciousness of the  $k$ -th organism in the energy-eigenstate space  $(E_{S_k}, |\phi^k\rangle_{S_k})$  of the system  $S_k$ :  $k_{0S_k}$  - basin of attraction of the ground (healthy) MW state  $|\phi^{k_0}\rangle_{S_k}$ ;  $k_{1S_k}$  and  $k_{2S_k}$  - basins of attractions of the two excited (psychosomatically disordered) MW states  $|\phi^{k_1}\rangle_{S_k}$  and  $|\phi^{k_2}\rangle_{S_k}$  (hundreds of them being in general, according to Tibetan traditional medicine [22]), modulated by numerous low-amplitude ULF states of the brain hierarchical neural networks. The above representation might generalised on the level of quantum-holographic collective consciousness, with religious/social implications on necessity of transpersonal spiritual quantum-holographic removing of all unwilling side memory attractors (which non-reprogrammed by prayer will unless cause psychosomatic diseases and interpersonal fights in this and/or further generations they are transpersonally and unconsciously transferred to, on the level of collective consciousness).

So it seems that the *whole psychosomatics is quantum hologram*, both on the level of *individual and collective consciousness*, which resembles on Hinduistic relationship *Atman/ Brahman* ('*Atman is Brahman*'), as wholeness and its part which bears information about wholeness [23]. The mentioned quantum-holographic picture (Fig. 1) also implies that quantum-holographic hierarchical parts carry information on wholeness, enabling subtle *quantum-holographic fractal coupling* of various hierarchical biological and non-biological levels in Nature: *acupuncture-based-quantum-informational (un)intentional control of ontogenesis and morphogenesis*, starting from the first fertilized cell division which initializes differentiation of the acupuncture system of (electrical synaptic) "gap-junctions" [16]; *quantum-holographic language-influence on the genes expression* [25], with implications of great psychosomatic significance of thought-emotional contents; as well as *global fractal-information coupling of hierarchical levels in Nature* [26] (out of which the most fascinating is mathematical discovery of '*Bible Code*' on the level of preferences of collective and individual history coded within The Old Testament – which might be interpreted as a consequence of *global quantum-holographic coupling of cosmic collective consciousness* (God!?) and *its every original manifestation* (including *The Old Testament*, as well as every *individual consciousness*) - which still *does not mean the strict determinism of the History* by the existing state of collective consciousness, whose memory attractors could (and should!) be *reprogrammed by hesychastic prayer for the others* thus removing interpersonal loads of the quantum-holographic Hopfield-like neural network of collective consciousness - so leaving the room for *free will and influence on the future preferences* [2,4]).

***Wave function collapse and consciousness: transpersonal implications.*** In-deterministic characteristics of free will imply that (with it related) consciousness must play essential role in the *wave function quantum collapse* [1,2,27,28], the only in-deterministic property of the quantum mechanics, which has itself *manifestly open problems* of the physical nature of *nonlinear collapse* and relativistically inconsistent instantaneous action on distance of the *non-local collapse* of the wave function [1,2,28].

One possible solution of the problem of (nonlinear) collapse is proposed by Penrose [29] in *gravitationally induced objective reduction* of the wave function, where gravitational field of apparatus included in superposition of the correspondent possible probabilistic states of the measuring apparatus implies superposition of different space-time geometries, and when these geometries become sufficiently different (on Planck-Wheeler scale  $\sim 10^{-35}$  m) this implies interruption of the standard probabilistic superposition of the composed states quantum system/measuring apparatus (quantum undefined in strictly separate space-time geometries) so that Nature must choose one of them thus causing *objective reduction* of the wave packet. (While regarding nonalgorithmic quantum-gravitational aspects of consciousness [29], Penrose looked for existence of the sufficiently isolated relevant macroscopic quantum degrees of freedom within microtubular cytoskeletal structures of neurons, which Tegmark subject to severe critics in his paper [8].)

According to author's *biophysical quantum-relativistic model of consciousness* [1], the similar *objective reduction* of the wave function might have quantum-gravitational origin in space-time microscopic *wormhole tunnels of highly non-inertial micro-particle interactions* in quantum measurement-like situations (fully equivalent, according to Einstein's *principle of equivalence*, to strong gravitational fields – in which opening of wormholes is predicted [30]). The question how is it possible that such highly non-inertial micro-particle phenomena with inevitable opening of microscopic wormhole-tunnels were not taken into account within the framework of quantum mechanics which is in spite of this extremely accurate theory(?) – can be answered that they were(!) but implicitly in the framework of von Neumann's projection postulate [27] in order to get quantum mechanical collapse of the wave packet in measurement-like situations - implying that von Neumann's *ad hoc projection postulate is based on quantum gravitational phenomena* [1], being on deeper physical level than non-relativistic quantum mechanical ones.

On the other hand, *non-locality of collective consciousness* [1,28], as a giant space-time associative neural network with distributed individual consciousnesses (related to bodily acupuncture EM/ionic MW ULF-modulated quantum-holographic neural networks [1,28], mutually interacting quantum-gravitationally in transitional states of individual consciousnesses [1,28]), might explain (apparently) *instantaneous action on distance* in (nonlinear) quantum-gravitationally induced and (non-locally) channelled collapse by collective consciousness [1]. At the same time, analogy between mathematical formalisms of *Hopfield's associative neural network* and *Feynman's propagator version of the Schrödinger equation* [21] – really implies that *collective consciousness is possible ontological property of the physical field itself* [1-5] with various micro-quantum and macro-quantum (both non-biological and biological, real and virtual) excitations, which is widely spread thesis of *Eastern esoteric/religious traditions* [23].

The remnant of these microscopic processes remained on the macroscopic level in *transitional states of individual consciousness* (as highly non-inertial processes of the out-of-body spatio-temporal *quantum-gravitational mentally-channelled tunnelling* of the part of acupuncture EM/ionic quantum-holographic neural network), presenting biophysical basis [1] of numerous *transpersonal communications* without space-time barriers: precognition and other esoteric phenomena and out-of-body experiences [7], experiments with prayer [31] and other non-local interactions [32-34]) – where necessity for *mental addressing* on the target implies *ontological personal aspect of individual human consciousness* [1,2,4,5], which is widely spread thesis of *Christian religious tradition* [24].

*Spontaneous transpersonal communications* with information exchange in transitional states of individual consciousness have evidently *negative effects*, as necessarily give rise to *global increase of psychosomatic loads* on the level of macroscopic quantum spatio-temporal network of *collective consciousness* – representing a 'motor of the History'. *The only phenomenon that decreases these loads is the prayer for the others* emotionally connected with (relatives, enemies, deceased), *mediated* by powerful and purified EM/ionic spiritual excitations from religious traditions (removing in these imprinting interactions as a net effect the mutual conflicts of the two persons interacting through mediated prayer) – thus really representing biophysical basis of *(quantum)holistic global psychosomatics* [1,2,4,5]!

The *real biophysical nature* of religious and other transpersonal experiences related to *transitional states of consciousness* should be also pointed out, which explains why these phenomena are *short-lasting* and *weakly reproduceable*, as well as why they are easiest *mentally controlled* just before entering altered state of consciousness, like sleep [1] – which is in accordance with multimillenia empirical experiences of different religious/esoteric traditions of East and West [23,24], implying the *same biophysical basis* of these phenomena in all religious/esoteric traditions, as the *cognitive apparatus* of the people of all traditions is the same [35]. On the same traditional line, it should be added that according to our elaborated theoretical relationship *consciousness/acupuncture EM-ionic quantum-holographic Hopfield-like associative neural network* [1-6], esoteric notions like *astral body (manomaya, lingasarira, manovijnana, ka, psyche, subtle body, psychic body, soul...)* and *mental body (vijnanamaya, sukmasarira, manas, ba, thymos, noetic body, spiritual body, spirit...)* [23,24] might be biophysically related to *out-of-body displaced part* (connected with the body by miniature 'wormhole' space-time tunnel) *of the ionic acupuncture system*, and with embedded *EM component* of ionic MW ULF-modulated currents, respectively; in the same context, the *ionic condensations* in the structured acupuncture system, with an EM component of ionic currents embedded within it, behave like *distributed centers of consciousness (chakras)*; finally, the *ionic nature of etheric vitality (qi, prana, pneuma, mana, bioenergy...)* and *etheric body* (related to *non-differentiated ions*, everywhere present in organism and essentially significant for numerous biochemical processes).

So, all transpersonal phenomena – including *nonlocal radiesthetic interactions* – might be theoretically interpreted [1,2,4,5] through intentional mentally controlled nonlocal biological (non-Schrodinger) quantum-gravitational tunneling of the operator individual consciousness with

operator's mental addressing on the target's part of collective consciousness in his transitional states of consciousness (short-lasting and therefore not easily reproducible [7]), thus intentionally channeling operator/target's composite state of collective consciousness ( $|\Phi\rangle_S \rightarrow |\Phi_i\rangle_S$ ), and automatically influencing the exit of target and environment ( $|\Psi\rangle_E \rightarrow |\Psi_i\rangle_E$ ) in non-Schrodinger quantum-gravitationally governed collapse-like (nonlinear) process ( $|\Phi\rangle_S |\Psi\rangle_E = \sum_j a_j |\Phi_j\rangle_S |\Psi_j\rangle_E \rightarrow |\Phi_i\rangle_S |\Psi_i\rangle_E$ ).

**Quantum and classical neural networks and two modes of consciousness: cognitive implications.** In further, *two cognitive modes* of consciousness should be pointed out [2]: quantum-coherent direct one (religious/creative, in altered and transitional states of consciousness) and classically-reduced indirect one (perceptually/rationally mediated, in normal states of consciousness) – to which theoretical methods of associative neural networks and quantum neural holography [21] combined with quantum theory of decoherence [36] might be applied. More concretely, in approximation of almost non-interacting individual consciousnesses  $S_k$ , the state of collective consciousness  $S$  is  $|\Phi\rangle_S \sim \prod_k |\phi^k\rangle_{S_k}$ , where the quantum-coherent state of the  $k$ -th

individual consciousness ( $|\phi^k\rangle_{S_k} = \sum_i c_{k_i} |\phi^{k_i}\rangle_{S_k}$ ) is described by superposition of its all possible states ( $|\phi^{k_i}\rangle_{S_k}$ ), which after quantum collapsing in classically-reduced state gives rise to stochastic

state described by density matrix  $\tilde{\rho}_{S_k}^k = \sum_i |c_{k_i}|^2 |\phi^{k_i}\rangle_{S_k S_k} \langle \phi^{k_i}|$ , with probabilities  $|c_{k_i}|^2$  of the realisation of one of the classically decoherent states  $|\phi^{k_i}\rangle_{S_k}$  - in quantum measurement-like process

upon the initial quantum-coherent state  $|\phi^k\rangle_{S_k}$ . The time evolution  $|\phi^k(t)\rangle_{S_k}$  of the quantum-coherent state of  $k$ -th individual consciousness might be described in Feynman's representation by *quantum-holographic* Hopfield-like neural network [2,21], while the time evolution  $\tilde{\rho}_{S_k}^k(t)$  of the classically-reduced stochastic state of  $k$ -th individual consciousness might be described by *classical* Hopfield-like neural network [2,21], represented by changes in the shape of the potential hypersurface in the acupuncture energy-state space  $(E_{S_k}, |\phi^k\rangle_{S_k})$ , cf. Fig. 1), achieved by exciting

consciousness/acupuncture system  $S_k$  from initial *stationary classically-reduced state*

$\tilde{\rho}_{S_k}^k = \sum_i |c_{k_i}|^2 |\phi^{k_i}\rangle_{S_k S_k} \langle \phi^{k_i}|$  via intermediate *non-stationary quantum-coherent (excitation)*

*superposition*  $|\phi^{k'}\rangle_{S_k} = \sum_i c_{k_i}^i |\phi^{k_i'}\rangle_{S_k}$  and (*relaxation*) *superposition*  $|\phi^{k''}\rangle_{S_k} = \sum_i c_{k_i}'' |\phi^{k_i''}\rangle_{S_k}$  into

subsequent final *stationary classically-reduced state*  $\tilde{\rho}_{S_k}^{k''} = \sum_i |c_{k_i}''|^2 |\phi^{k_i''}\rangle_{S_k S_k} \langle \phi^{k_i''}|$ , with  $|c_{k_i}''|^2 \neq |c_{k_i}|^2$  [36].

The *direct cognitive mode* of individual consciousness may be related to weakly coupled consciousness-environment communication, within the non-local quantum-holographic/quantum-gravitational space-time network of collective consciousness (characteristic of quantum-coherent *transitional and altered states of individual consciousness*, in religious-esoteric transpersonal communications, of the quantum-gravitationally tunnelled quantum-holographic-Hopfield-like electromagnetic/ionic out-of-body displaced part of the acupuncture network of individual

consciousness, with the mentally addressed non-local environment-target, including anticipation in intuition, precognition, and deep creative insights [1,2] – being after quantum collapsing in classical/normal state of consciousness, through restituted strong coupling of quantum-holographic-consciousness-contents with the body, further subjected to indirect language/artistic/scientific filtering through extended reticular-thalamic activated system, ERTAS [37], thus classically-reducing initially obtained direct quantum-coherent information content - so explaining *generally poor* informational rationalisation of the initial full quantum-holographic awareness of spiritual/religious mystical experiences).

The *indirect cognitive mode* of individual consciousness may be related to strongly coupled consciousness-body-environment communication via space-time limited perceptual sensations, further processed by classical/electrochemical hierarchical neural networks and rationally filtered in conscious content by approximate empirical/artistic/scientific concepts dependent of cultural/scientific tradition and education of the inhabitants of some society (characteristic of classically-reduced *normal states of individual consciousness* in everyday communications, additionally *filtered* and amplified by ERTAS system - and afterwards transcribed in conscious content of the quantum-informational acupuncture network of individual consciousness, via brainwaves' EM fields every  $\sim 0.1$  s - so generating normal "stream of consciousness" [1]).

The above-mentioned division in two cognitive modes of individual consciousness, quantum-coherent direct one (in religious/creative altered and transitional states of consciousness) and classically-reduced indirect one (in perceptually/rationally mediated normal states of consciousness) - is still *non-quite sharp*.

Namely, in religious/creative *altered and transitional states of consciousness*, quantum-coherent direct modus might be *transformed* into classically-reduced indirect mode, in the case of strong out-of-body interaction consciousness-environment, with quantum-reduced out-of-body *extrasensory perception of the mentally addressed environment*, which transforms out-of-body displaced part of individual consciousness from non-stationary quantum-coherent state of the quantum-holographic Hopfield-like neural network in the above described stationary classically-reduced stochastic state of the classical Hopfield-like neural network. After interruption of this interaction, with returning out-of-body displaced part of individual consciousness in quantum-gravitationally mentally-channelled tunnelling of the displaced part of individual consciousness upon its body, this information is further transcribed through (MW/ULF) EM interaction acupuncture system/nervous system and afterwards language/artistic/scientific filtered by the brain hierarchical neural ERTAS system (with accompanied neural-oscillatory [38] brainwave "frequency uprising" thought from lower-frequency ULF ( $\delta, \theta$ ) unconscious form of subliminal thought to higher-frequency ULF ( $\alpha, \beta, \gamma$ ) conscious form, with implications on the very mechanism of thinking [3], closely related to mechanism of frontolimbic amplification of the pragmatic language processing [39], which is dominantly going on the unconscious level). It should be also pointed out that mentioned (MW/ULF) EM *acupuncture system/nervous system interaction* has its threshold potential of the nervous electrochemical synapses (in contrast to practically non-existing threshold potential of the acupuncture electrical "*gap-junction*" synapses [1,6,16], which makes bodily acupuncture system an extremely sensitive quantum sensor) and therefore filters all thus extrasensory obtained information below nervous threshold potential, preventing them to be additionally language/artistic/scientific articulated by the brain hierarchical neural ERTAS system - enabling further processing of only that information which is sufficiently "emotionally coloured" i.e. has sufficient critical depth of MW/ULF EM acupuncture memory attractors, or has greater general acupuncture energetic potential (inborn or gained through various traditional techniques of stimulation, deep breathing, relaxation, meditation or prayer [6]).

On the contrary, the reverse *nervous system/acupuncture system interaction* – effective in transcription of language/artistic/scientific articulated brain information into conscious content of the acupuncture network of individual consciousness, mediated by ULF EM field of brain neural activities every  $\sim 0.1$  s thus generating normal "stream of consciousness" and ULF-modulating

acupuncture MW-memory attractors – is going *without threshold limits*. In this context, in perceptually/rationally mediated *normal states of consciousness*, the classically-reduced indirect mode can be *transformed* into quantum-coherent direct mode of individual consciousness after ULF EM transcription of the brain articulated information into conscious content during interaction nervous system/acupuncture system, in the case of short-lasting *non-stationary excitations of acupuncture system* in interactions with strongly changing environment [36] – like MRT or other types of acupuncture stimulation, inhalation of the air ions in deep yoga breathing and their redistribution over acupuncture system, different meditative and other psycho-muscular relaxation techniques, stressful situations, transitional and altered states of consciousness [6] - which transform the acupuncture system from stationary classically-reduced stochastic state of classical Hopfield-like neural network into nonstationary quantum-coherent state of quantum-holographic Hopfield-like neural network, which afterwards collapses into next stationary classically-reduced state. This can be also a model of the perceptually/rationally induced strong intentional classical/quantum/classical stationary/nonstationary/stationary backward hierarchical (inter)actions nervous/acupuncture/nervous systems - i.e. model of *free will!*

The elaborated consciousness-body-environment communication, weakly-coupled (via non-space-time-limited quantum-gravitationally out-of-body-displaced EM/ionic (part of) acupuncture system in transitional and altered states of individual consciousness, subsequently quantum-collapsed in restituted-strongly-coupled classical/normal state of consciousness, and then subject to both acupuncture system/nervous system threshold-filtering and hierarchical nervous ERTAS filtering-and-amplifying interactions) and/or strongly-coupled (via space-time limited neural-networks-processed perceptual sensations in normal states of consciousness, subjected to hierarchical nervous ERTAS filtering and amplifying), combined with unconscious language modulation of thought, might provide fundamental information on the relationship between consciousness and thinking – which is also significant for understanding *the process of consciousness-making the transpersonally obtained radiesthetic information* – simultaneously contributing to improvement and development of new *psycholinguistic techniques* of contextual learning in general, related to unconscious information processing and memorizing. Namely, ERTAS-like mechanism of pragmatic processing, in combination with the increase of dominant EEG frequency from  $\delta$  to  $\beta$  brainwaves during an ontogenesis [40], implies that the mother tongue is generally memorized at low-frequency  $\delta$  and  $\theta$  levels (later being unconscious in adults), in contrast to second and even further languages in bilinguals and multi-linguals which are memorized at high-frequency  $\alpha$ ,  $\beta$ , and  $\gamma$  levels (later being conscious in adults) – which then implies that second and further languages are being hardly incorporating at unconscious (automatic) levels, save only from contextual learning which enables unconscious processing of contexts – providing differences of the *language learning* in childhood and adulthood as well as in school (conscious/grammatical *non-contextual*), and in living environment (unconscious/non-grammatical *contextual*) [3].

**Conclusion.** The previous considerations of our quantum-relativistic/quantum-holographic model of altered and transitional states of consciousness imply an extreme sensitivity of the bodily energetic-informational quantum-holographic acupuncture system (especially on MW(RF) and ULF EM fields), which influence on the EM/ionic acupuncture system and thus on the expression of genome (via quantum-holographic coupling acupuncture system-genome) and appearance of psychosomatic disorders – implying necessity of detection of and protection from EM radiation in these regions. In the same context, the necessity of (quantum) holistic therapy of such quantum-informational psychosomatic disorders was stressed, with different (local and global) mechanisms of action and frontiers of traditional and contemporary complementary medicine. The necessity of keeping balance of positive and negative aeroions in living and working environment (with some excess of negative ions in air) is noted too – due to their vital significance for normal functioning of the acupuncture system as the main macroscopic (quantum-holographic) regulator of morphogenesis. Finally, the reality of quantum-relativistic/quantum-holographic mechanisms of transpersonal phenomena in interactions of consciousness/acupuncture system with its environment is pointed

out, as well as general limitations of the classically-reduced directly obtained quantum-coherent informational content, and of the acupuncture system/nervous system threshold filtering and hierarchical neural ERTAS filtering-amplifying mechanisms – being also of significance for understanding the process of conscious-making the transpersonally obtained radiesthetic information.

This certainly do not include explanations of the all phenomena considered in this interesting book, but represents a good basis and encouragement for their further (scientific) investigations – and points at full significance of trials to synthesize knowledge about different natural and artificial radiations, harmful and useful, their physico-technical and radiesthetic measurements and protections from them, with applications in medicine and complementary (quantum)holistic medicine – considered soberly and responsibly in this book of Dušan Janjić, BSEE.

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