

# ENTROPY LOGIC THEORY AND EXPANDING HORIZONS OF CONSCIOUSNESS

**Edward Krick**

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*His youthful wife Simla Jarmapuri introduces a spirit of Oriental wisdom in his books.*

*Svyatoslav Nesterov  
New York, December, 1995*

Many spiritualists, shamans, clairvoyants and parapsychologists had astonishing paranormal ability to “scan” information from different items – stones, clothes, photographs and curls – on destiny of their owners.

This ability was called *Psychometry* (psyche – spirit, soul and metron – measure (from Greek)) by its pioneer and first researcher New York anthropologist and physiologist professor J. Buchanan. After multiple experiments with petrifications, minerals and relics prof. Buchanan discovered that each inanimate item had a property to “memorize its destiny”. Silent items act as a certain gramophone record filled by feelings of their former holders.

As long ago as in ancient Egypt people were convinced that everything called by a person as his own inconceivably was a part of him. Not only cut nails and hair remain connected with him further, but all items which he had ever touched remain “impregnated” with his personality.

Geologist professor Denton of Nantes (France), one of disciples of Buchanan, even claimed that it is possible to extract more data on the Age of Pharaohs from “a single pea-size splinter from Egypt” rather than from all researchers of antiquity taken together. After Buchanan other French researchers, first of all, Riche and Austin were engaged in psychometry phenomenon very intensively. Time and again it had be-

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ing discovered that a simple body contact with any item was enough to call the most tremendous back-stage data on events related thereto. And there is no difference, whether events of the present, the past or the future in question.

At all times priests and sages, witch doctors and oracles, astrologers and foretellers used plummets and willow rods for obtaining data from the past or the future as well as for search of treasures.

In ancient China using of the plummet was a privilege of lords and aristocrats. Emperors always took a silver or golden plummet along and used it upon making important decisions. In India a rod had been used as early as in year 3000 B.C., and the history tells that ancient sages used the rod for searching groundwater. From China and India this craft came to Egypt, then to Greece and later to the Rome.

The oldest tradition of rod detection or radiesthesia (radius – beam (Latin) and aesthesia – sensitivity (Greek)) is an ability of unintentional reception of information from distant (hidden) objects and its transmission by means of plummet oscillation or deviation of a rod in hands.

This event presumes influence of some physical field on biological system, which response manifests in the form of alternation of position of an indicator (rod, plummet) being in hands of an investigator.

Moses is considered as the first rod detector in Europe. He hit the rock with a stick and water appeared out of the rock in response thereto. Plinius Senior (I century A.D.), Paracels (1493-1541), Mesmer (1734-1815) and some other authors had mentioned this effect in their works. In the Middle Ages this effect was successfully used for searching portable water and ore deposits in countries of the Western Europe.

In 1556 Georgius Agricola described the fact when medieval German miners searched mineral and ore deposits with the help of a “magic rod”. According to European archives, about 70% of mineral deposits were discovered by the very method.

The founder of the British Royal Scientific Society Robert Boyle, English mineralogist William Price, founder of electrochemistry Richter and famous chemist Glauber were engaged in studying this effect and they estimated its abilities very highly.

In 1911 in Hanover the first congress on rod detection was held. International Union of rod detectors was established at this congress. In 1913 the second international congress of experimental psychology was held in Paris. At this congress a commission consisting of scientists of different specialties examined more than one hundred people claiming their abilities to search ore, water and cavities in the interior of the Earth. Conclusions of the commis-

sion emphasized doubtless existence of rod detection phenomenon (in scientific circles called as biophysical or biolocation effect) and necessity of its further development. In 1973 the International Society on Research of Psychotronics (psyche – spirit, soul and tron – measurement device (Greek)) – instrument study of possibility of supersensitive perception – was established. Problems of rod detection are being handled at the congresses of this society.

Upon results of complex researches UNESCO and UN expert on geology prof. S. Tromp published his work in which he proved objective character of existence of biolocation effect on the basis of large statistical material. Sensors of a cardiograph and a device for measurement of skin potential were fixed on blindfold students going with a metal frame instead of a rod by long profiles. All students reacted by the frame to the same zones being marked by the cardiograph and the potentiometer.

Professors Chadwick and Jensen (USA) performed analogous researches on 150 employees and students of Utah University. Statistical magnitude of results of application of a metal frame was checked with the help of the “Chi-square” test, and the level of fortuitousness was in the rage of 6.0 – 0.05% of cases.

Thus water, mineral oil, ore, coal as well as missing people, animals and inanimate items had been being searched for many centuries. And even nowadays one of the largest pharmaceutical manufacturers in the world Swiss concern “Hoffmann la Roche” gives orders to its permanent rod detectors to search water required for production before construction work at locations of new branches is started.

Famous rod detector Gottfried Mayer of Allensbach (Germany) had determined location of a thermal spring in Constantsa that was discovered afterwards during well-boring at a depth of 400 meters. The fact made a profit of DM600 000. The boring company “Vik Drilling” headed by V. Thompson gets very high percentage of productive wells upon using biolocation for searching underground water-bearing zones; this fact allows the company to increase volume of drilling from year to year.

The US union of rod detectors includes more than 25 thousand people. In Vietnam specially trained GIs had been successfully searching unexploded bombs, grenades and high-explosive shells with the help of rods.

Nowadays there are very successful attempts to use rods and plummets for accomplishing different tasks in geology, archaeology, paleontology, medical diagnostics and other areas of human activity.

Thus, “a magic stick in skillful hand” (Goethe) has remained its significance till our days.

Researches of supersensitive (perceptive) channel allowing some persons to perceive distant or hidden items not affecting any of known sense bodies are of a certain interest.

This problem is currently being under consideration in the best university laboratories of the world: USA, Germany, England, Netherlands, Austria, France and Italy. Work on studying parameters of a field causing biolocation effect are being carried out; different theories on mechanism of reception of information from different objects of animate and inanimate nature by the human are being developed; electrophysiological processes at a moment of reception and decoding of information in cerebral structures are being investigated; attempts to use supersensitivity features of living-beings are being made.

Psychometry and radiesthesia are two main forms of supersensitive perception (clairvoyance or cognition (cognitio – cognition (Latin))). The only difference between radiesthesia and psychometry is a method of indication of things being perceived, as these are two forms of the same function, but not two different functions. Psychometry and radiesthesia differ from each other only by the following: in first case extrasensory information is being cognized directly in the frontal cortex in picturesque or quasi-sensory form, meanwhile upon radiesthesia information is being perceived unconsciously and gives out its content only through ideomotorally driven indicator.

Radiesthesia can be determined as a method of presentation of information received by contactless way from distant hidden objects as the expense of ideomotor motions realizable upon deviation of a rod (frames) and plummets. An indicator in hands of an operator (as if independently from the operator's will) objectivizing intuition moves due to tremor and micro motions of hands, arising as a result of tonic muscle activity. Rod detection process is human motoric reactions perfect only after long-term and exhausting training. Fair results can be reached by a few especially gifted people. Their small number impeded broad application of this method for accomplishing everyday tasks and did not allow making craft of rod detectors a mass profession.

In spite of the fact that physical laws in classical science until recent times had not been related to the clairvoyance phenomenon, exact description of these processes and evidences of this rear unusual human talent have been existing for many thousand years. Clairvoyance ability can be also reached with the help of narcotics. Clairvoyance ability can appear in one's sleep, during hypnosis or with the help of conscious suggestion or as congenital gift (very often it takes place in Ireland, Scotland, as well as in some eastern countries of Europe and Asia).

Clairvoyance promotes perception of events in the present (cognition), in the past (retrocognition) and in the future (precognition). Up to now classic science has been denying the very process of clairvoyance. However, serious researches performed in many universities and institutes of many American states allowed admitting existence of this absolutely unique natural phenomenon.

Professor Joseph Benk Rayan, an American psychologist in Duke University in Darham (North Carolina) proved objective existence of the clairvoyance phenomenon by scientific and statistical methods. He used so called Zener cards (a test used for quantitative studying of parapsychological phenomena).

On the basis of experiments performed in laboratory of Stanford University a fundamental conclusion was made as follows: each person has a potential ability to perceive spatially distant topographic and engineering objects (buildings, roads, technical equipment) as well as biological structures (animals, plants and other people). In this case the given phenomenon does not depend on the distance. According to researches, substantial increase in test effectiveness happens upon using statokinetic indicators (rod, metal frame or plummet).

Results of tests performed in laboratories around the world allowed to finish off with unsubstantiated denial of this event by scientific orthodoxies. Thanks to positive experiments scientific community managed to finally make sure of existence of the effect of supersensitive perception and the fact that all people can possess such abilities and that they can be strengthened as a result of training or, quite significantly, application of the latest special equipment.

Explanation of phenomenon of supersensitive perception is possible basing on materialistic conceptions without exceeding the frameworks of scientific paradigms.

For own explanation ability to perceive distant (hidden) stimuli irrespective of ordinary sensory processes has required certain researches in the frameworks of such disciplines as neurophysiology, information theory and quantum theory.

Not long before discovery of electromagnetic waves by physician Kruks and chemist Ostvald set up a hypothesis on radiations lately called as a "radio of cerebrum". A group of researchers tried to explain the effect of supersensitive perception from the positions of "animal electricity" discovered as far back as during test performed by L. Galvani and A. Volt. In 1902 a theory of biopotentials was created; in 1925 G. Fricke offered to consider cell membrane as an oscillation circuit. Events of generation of wave oscillating processes by human body, animals and plants were discovered. At the level of brain nerve cells they

are being registered in the form of ElectroEncephalograms (EEGs). It is proved that a nerve cell of living organism is a generator of electromagnetic radiation in ultrahigh range of frequencies with the wave length comparable with linear dimensions of the cell itself.

W. Aidee supposed that weak magnetic fields of brain neurons played substantial role in the process of data perception and processing creating the second signaling system in addition to the synaptic one. H.Puthoff and R.Targ had established influence of weak magnetic fields on the cerebrum leaving aside sense bodies. In their experiments they proved that upon transmission of information under absolute absence of sensory contact the role of intermediary was played by electromagnetic oscillation of very low frequency. It should be noted that experiments of Puthoff and Targ were successfully reproduced in many laboratories of the world. In the G.Schnoll's opinion, interaction of radiations of different cells under absence of an external signal takes place at the expense of resonance events (interference) between waves of different length provided that both ultrahigh harmonic (sinusoidal) and low frequency nonlinear (stochastic) oscillations are available. Their synchronization is provided by nervous system, and their coherence – by tissue specialization of cell structures. Upon weakening control of nervous system, for example, as a result of a mental disease or impact of neurotropic toxins these processes can be put in order by external stimuli, namely: visual, acoustic and chemical ones or electromagnetic radiation. Interaction of radiations is executed at molecular level as a result of alternation of relative position of molecules creating the cell in space (conformational transfers). At that an effect of resonance intensification of cumulative signal is achieved.

The given event was called as biological feedback and currently is broadly used for rapid achievement of the state of deep relaxation (meditation).

In excited cell structures electric tensions (so called “membrane potential”) within the range of from 8 mV (rest potential) through 60 mV (action potential) are caused by nerve impulses. We can consider nerve cell as rhythmogenic center with exogenic modulated frequency.

Whether we are in a normal (and even excited, nervous or scared) wakeful state, then EEG will display mainly beta waves. Their frequency mostly does not exceed 20-25 Hz, and their amplitude lies in the range of 2-20 microvolt. Upon visual or acoustical stimulation wave pattern of this so called “background activity” of brain is being changed radically. Some higher points reach amplitude of up to 200 microvolt. Whether activation impulses from reticular system weakens, then “background activity” decreases significantly and gives way to a type of waves known as alpha waves with the frequency of 8-12 Hz and amplitude of 5-100 microvolt.

Almost all authors of books and tutorials on methods of relaxation, autogenic training, transcendental meditation or yoga call production of alpha waves a prerequisite for reaching self-hypnotic state. However, relaxation reached in such a way has nothing common with self-hypnotic state as the frontal cortex still exercises its typical beta activity.

Self-hypnotic state and access to subconscious areas of central nervous system appear only when the brain produces theta-waves with the frequency of 4-7 Hz and amplitude of 5-150 mV. Now consciousness and subconsciousness “speak” the same language, and unhindered information exchange is possible between them.

The brain uses an opportunity of “interbrain communication” mostly for its own programming: genetic information and content of subconsciousness (archetypes) come into communication with and are processed along with individual empirical data ac-



*H. Puthoff*



*R. Targ*

cumulated in memory. These programs are required for unhindered performance of vegetative functions, development and maintenance of genetically fixed behavior, as well as for execution of “human – environment” connection.

It should be noted that problem of interaction of consciousness and subconsciousness is one of the most complex and the least developed problems of modern science. Only one of 10 million bits of information is cognized. The rest mass of perceived information is not cognized and is fixed in the area of subconsciousness. Some authors refer events of foresight and creative intuition expressed in generation of new scientific hypotheses to this very area.

J. Sarfatti and G. Barra suppose that the area of subconsciousness is connected not only with separate individuals, but is common for all human population. They think that *“functionally large and thin systems thanks to interaction of subsystems-individuals being parts thereof can possess consciousness immanently inherent to them or its analogues as an integral functional mean of displaying reality and antientropic influence on the outer world and themselves”*. By content this theory is close to the theory of “cooperative subconsciousness” by C. Yung. According to M. Talbot’s ideas, function of consciousness is a field, resonance of continuum of fields that control the substance structure. C. Pribram offered holographic model of consciousness, according to which each particle of the hologram characterizes the whole picture. In his opinion, whether human brain and physical Universe are under holographic principle, then the consciousness shall represent whole visual environment.

The beginning of changing of thinking towards cognition of supersensitive perception is sooner being happened with physicians since models with the help of which they are trying to explain behavior of elementary particles have specific properties and depend on the state of an observer in respect to the test subject.

In the late 70-es physicians Helmut Schmidt and Evans Harris Worker published their theory of paranormal function relying on concepts of quantum theory. It stated that such paranormal events as clairvoyance refer to areas of quantum physics, in essence. Thanks to Schmidt-Worker theory an elegant mathematical model of supersensitive perception containing physical prerequisites and including physiology of spiritualist was formulated. Further, Evans H. Worker started working with these two areas and offered a new perception of the “hidden variety” based, in his opinion, on quantum reactions. Worker had researched the role played by consciousness in observation of physical processes. The scientist thought that nerves subduing to consciousness are connected with each

other at the level of interaction of elementary particles rather than through ordinary reaction of chemical conductivity. Thus, entire unity of connected particles, which is, in the Worker’s opinion, of extremely complex state, is being created. Worker thought that human consciousness is equivalent to variety of states of elementary particles. Thus, a portion of power of this cerebral system processing information is always ready to stop “collapse” of uncertain states of elementary particles outside the system. Such a process was called by Worker as “regulating function of consciousness”. With the help of consciousness it is possible to psychokinetically influence on our world and this will be a source of all paranormal effects. As consciousness is able to influence on nonlinear variety of the system the system’s activity is limited neither by space nor time.

Concurrently, but independently, with H. Worker, O. Kosta de Borgar offered an analogous idea. In his opinion, conscious brain activity is corresponded by ordinary (trivial) logic, whereas subconscious activity is the basis of intuitive discernments and is performed pursuant to quantum (entropic) logic. Upon connection of subconsciousness stochasticity of conclusion and decisions equivalent to stochasticity upon quantum-mechanical measurements appears.

State of any quantum system is being determined by probability laws of distribution of proper physical values being determined through wave functions. Two quantum systems are called as quantum-correlated ones, if probability characteristics of one of them depend on proper characteristics of the other. It happens when systems has been contacting with each other at some moment in quantum sense, i.e. they wave functions have been crossed. Possibility of quantum correlations follows from the main postulates of quantum mechanics being observed experimentally. Thus, there is a transfer of alternations (reduction) of wave function between quantum-correlated systems. According to quantum-mechanical description, influence of one of the systems on the other is being transmitted instantly and does not depend on distance and availability of electromagnetic or other screens. These properties of quantum-correlated systems with account of their initial “contact” coincide with features of interaction of an operator with distant (hidden) material objects. Influence of the operator on physical system is being exercised through his “influence” on wave functions of quantum objects, and this influence is being exercised in the same way as in quantum-correlated systems, i.e. has a character of magnetic, electrical or acoustical influence.

Professor of physics Dr. D. Bom as a hidden parameter offered to introduce some mathematical field, transmitting alternations (reduction) of wave

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functions (called in quantum mechanics as “informational function of system” or  $\Psi$ -field).

According to concepts of quantum entropy logic (an adjacent discipline at the borders of quantum mechanics and information theory), informational function of the system is divergent to the system’s energy and has orthogonal projection of impulse in space-time continuum in respect to the later and is convergent to the mass of physical objects comprising the system being researched.

Dependence between a state of informational function (channel width and density of signal transmission) and a mass of the physical body can be described by the formula of finite increments of Lagrange.

General theory of relativity of Albert Einstein connected gravitational fields with distortion of four-dimensional space – the time. In order to vividly imagine this connection the space often is sketched out as a stretched film or trampoline in which pits are being punched by massive bodies (“gravitational craters”). A particle passing by the massive body slides down to such a crater and we interpret it as gravitation. Within the frameworks of such analogy the work of Svyatoslav Nesterov and Yakov Zeldovich on “zero Lagrangian” can be considered as explanation of some “resilience” of the space. By conception of quantum mechanics an oscillation system (for example, a ball in a hollow) can possess only strictly established energy – roughly speaking, the ball can rise up to some strictly established points only without experiencing intermediate states at that. Besides, the ball can not motionlessly lay at the bottom, because it will contradict to the uncertainty principle stating that it is impossible to unambiguously determine exact value of coordinate and impulse of a quantum object (and the coordinate of the ball laying at the bottom is determined exactly, as well as impulse that

is equal to zero – entropy of the system takes on a maximum value).

*Thus, even vacuum possesses some organization at the expense of oscillation of different fields.*

Basing on the principle of convergence of gravity forces and entropy professor T. van Hoven developed a mathematical model of “entropy fields” (black belts) being quasi-fields generated by caused space-time deformation.

It is easy to find explanation of delicate mechanism of interaction of quantum-correlated systems in the theory of entropy logic. Transmission (reduction) of wave function to the system (information induction) causes alternation of curvature of four-dimensional space-time analogous to influence of a massive body, appearance of “gravity temporal crater” or “entropic depression”, if to speak in figurative terms of van Hoven.

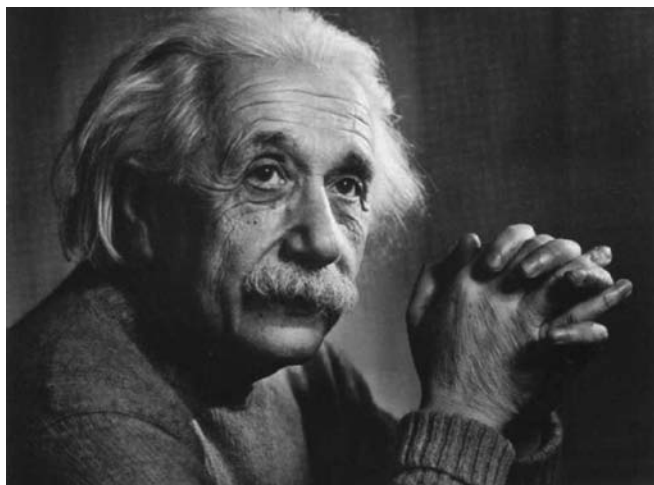
Thus, mechanism of information induction is being realized upon increase of quantum values of entropy of correlated systems.

In order to explain existence of many paranormal human properties and a range of phenomena of super-sensitive perception, which realization is hard to explain from the view of orthodox scientific paradigm (for example, for cooperative subconsciousness claimed by C. Yung or clairvoyance in the past, present or the future) it is necessary to deepen into a thrilling area of elementary-particle physics for detailed researching of properties of electrons and other particles.

Atomic electrons move by quantum passages around their nucleuses, simultaneously rotating around their own axes. This own rotational impulse, or spin, characterizes all other elementary particles as well. Thus, all electrons, protons and neutrons rotate with the value of spin ( $S$ ) in  $1/2$  ( $s=1/2$ ), and all bosons, gluons and photons with the spin of  $1$  ( $s=1$ ).

But how can rotational motion contain information at all? In this case it is possible to produce not one, but even two fundamental possibilities. First, information might be presented by a value of rotational impulse that depends on speed of rotation, mass and form of a particle. Second, this information might be encoded along the lines of rotation of the particle.

The first supposition is unfortunately pulled down due to inconsistency with laws of nature. While particles can take absolutely any impulse along the lines of distribution, it is impossible for them due to presence of an universal natural constant (Planck constant) unlike, for example, planets, stars or a whipping top to rotate with any speed. They shall adhere to one rotational speed strictly established for each type of particles, and value of this speed shall be half-integer of integer multiple value of  $h/2$ , where  $h$  – is a quantum of Planck’s action.



A. Einstein



*C.G. Jung*

This value equals to  $1.0546 \cdot 10^{-2}$  erg-secs and is the most little action ever detectable.

From electronic data processing we know that for producing and transmitting information we shall have at least two different levels of semantic expression (bit) that are usually denoted by 1 and 0 symbols. United into groups (bytes) 1 and 0 levels of semantic expression allow to represent any large quantities of numbers on the basis of binary system of numeration. For example, all numbers between equals sign and 255 ( $1+2+4+8+16+32+64+128=255$ ) in 8 bites in 1 byte as used in computer engineering. Whether letters or signs go with certain numbers as, for example, in American ASCII code, then it is possible to depict all letters from A through Z and all punctuation marks as well as wildcard characters.

In data processing systems 1 and 0 levels of semantic expression can be depicted with positive or negative tension or with that current propagates or nor; whereas in data storages they temporarily exist as the expense of presence or absence of magnetic field (hard-disk drives) or electrical tension, or at the expense of transparency of crystals of metal oxides (optical plates).

Similarly to that fact elementary particles can also have two opposite levels of semantic expression: rotational impulse of a particle is orientated in space in parallel (directed “upwards”) or in antiparallel (directed “downwards”) with direction of its movement.

Whether we proceed from the assumption that parallel (marked with “+”) spins correspond to 1 in binary system and antiparallel (with the sign of “-”) to 0 in the same system, then it is especially obvious that elementary particles are able to communicate the spin, i.e. modulated semantic information.

Four main forces determining physical structure of the world and responsible for all interactions between particles and thereby for all physical

events act between structural elements of substance (elementary particles). They are weak and strong interaction, gravitation and electromagnetism. Two of them – weak and strong interaction – are not able to be directly perceived in macroscopic sphere: they have just narrow ranges that are less than radius of atomic nucleus ( $10^{-8}$  cm).

By contrast with this gravitation and electromagnetism due to endless range refer to our everyday empirical world.

As all elementary particles possess both properties of particles and waves, we can consider interaction between particles either according to the theory of standard field as a consequence of interpenetration of their relevant fields or to the theory of quantum field as a result of exchange of the third virtual particle.

With due account thereof we can gain vivid (but extremely simplified) insight of quantum mechanical processes inside material objects.

Separate quantum particles constantly emit field quanta. Whether the later come across with a particle able to interact with them, then they are being absorbed by it and hand it over their energy and rotational impulse (spin).

By means of medium – carrier – virtual particle – material objects are able to receive information from the environment and radiate actual information on the state of objects.

The way, by which electron “processes” information contained in the spin of absorbed virtual particles and accumulates it in the form of discrete quantities, can be explained by the theory of quantum entropy logic proposed by Prof. Theodore van Hoven.

In his theory T. van Hoven develops success of works by E. Vitchinsky and L. Beadley, in which in a single theory weak and strong interactions of elementary particles, electromagnetism and gravitation (nowadays known as absolute unity theory (AUT)) were united.

Van Hoven pins the AUT theory with baryon asymmetry of the Universe. This work made large impression and caused a great deal of new researches, in which, in particular, a role of x-particles and other bosons was described in detail.

By now conception of structure of baryons as component particles consisting of three “more elementary” particles – quarks (antibaryon consists of antiparticles – antiquarks, accordingly) become firmly established. In Van Hoven’s theory quarks and leptons (collective name of electron and neutrino) are considered on equal terms and can transform into each other. As a consequence, reaction with alternation of rotational impulse (spin) can be performed.



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Decay process takes place with formation of so called x-boson as well as other similar by properties vector (terminal) particles at the intermediate stage. For shot we will talk on x-bosons only; let me remind you that vector fields are the ones able to exist in any states of polarization. The simplest example is an electromagnetic field.

Probability of this decay reaction is extremely doubtful. The point is that mass of quark is certainly less than the one of x-boson. Thus, this reaction does not take place in common (classical) sense of the word. Just some slight “swinging” of such level of vacuum liberty (resiliency) that corresponds to x-boson takes place. X-boson can decay by two ways – into antiquark and positron or into two quarks; anti-x can decay into quark and electron or two antiquarks, accordingly. Integrated probability of decay of x equals to integrated probability of decay of anti-x. But upon decay of x-boson more pairs of quarks than upon decay of the same quantity of anti-x pairs of antiquarks are being formed and less antiquarks and positrons than quarks and electrons upon decay of anti-x. It is essentially that x-decay takes place without balance and with some “procrastination”. Otherwise baryon asymmetry won’t be able to be formed by general theorems.

Formation of baryon asymmetry implies global spontaneous symmetry breakdown for many properties of the space.

Thus, there are huge areas (billions of light years) with space division of substance with positive and negative polarization and proper physical fields thereof conditioned by transfer of moment of rotational impulse (terminal fields) in the Universe.

At the further stages of cosmological expansion of the Universe annihilation of antiquarks with quarks, then – merging of excess quarks into baryons takes place, and then excess electrons come into atom structures. This is the way of origin of the substance.

Further development only proved van Hoven’s theory that includes so called quantum chromokinetics, i.e. dynamical theory of electromagnetic gravitational (entropic) interactions.

According to this theory, upon decay reaction quarks are given additional level of liberty, conjugated with electromagnetic radiation of light spectrum, thus called as color. Quantum chromokinetics (abbreviation – QCD) is very successful in description of quantum-correlated interactions of hadrons. Its character is ability to retain quarks! They can not be extracted from baryons or mesons in the same way as electrons are being extracted from atoms. The reason is creation of some “chord” retaining quark with the force not reducible depending on distance.

Some successes obtained upon researches of supersensitive channel of information transfer, were

conditioned by scientific strategy based on conceptions of physical mechanisms of initial interaction of a field with some elementary structures acting as biological receptors being a part of nerve cells. In the opinion of O. Reiser, mechanism of signal detection can be conceived as a result of resonance interaction between fields generated by nerve cells of the cerebrum and hydrogen-helium plasma of the ambient space. In the scientist’s opinion, nerve cells of the cerebral cortex can be considered relatively to a stable aggregation of colloid structures of quantum-mechanical nature able to extract proper information using “Fourier transformation” and put it in good order and sufficiently represent it though a communicative (linguistic) language with the help of mechanism of wave encoding (modulation).

In electrons of cortical nerve cells supersensitive information encoded in the spin in the form of discrete magnitudes transforms into analogous neuron impulses and is being processed into quasi-sensitive impressions like other information of sensory impressions. O. Reiser supposed that quantum spin states acting as information carrier are being realized at the atomic level in hydrogen bonds of protein.

It was shown in works of Prof. Arthur T. Winfrey of Arizona University devoted to study of three-dimensional modes of distribution of electrochemical waves and executive centers in excitable mediums, that magnetohydrodynamic waves (Alphen waves) spreading at that in tissues cause rearrangement of nuclear configuration of macromolecules and influence on energy of nerve cells. In the opinion of G.Lashaet and A. Morrow the following principle lies in the heart of supersensitive perception: decomposition of spectrum lines of magnetic field conditioned by presence of nucleuses having their own magnetic moment.

Seko Idzava of Nuclear Research laboratory of Nagasaki University (Japan) established that upon influence of weak electrical fields a whirl magnetic field appears inside the volume of nerve cells, their structures of different geometrical dimensions, not excluding dimensions of molecules.

Upon certain alternation of wave functions of magnetic electrons of substances being in labile state (a state of instability both to strong and weak disturbances) a phase change of spins of magnetic electrons (spin re-orientation transfer) can occur in them. As a result of spin-spin interaction of nucleuses a hyperfine structure in spectra of magnetic field appears.

As energy jumps in atoms are proportional to their ionization energy, then a role of receptors perceiving field changes can be successfully played by impurity atoms. Their distinctive feature is extremely low energy of ionization and long life-time.



Scientists of California Institute of Technology (USA) have detected impurity atoms in nerve cell of the human brain in the form of inclusions mostly consisting of magnetite ( $\text{FeO} \cdot \text{Fe}_2\text{O}_3$ ) with the size of up to 100,000 angstroms.

In the temperature range of 301.5–321.3 K magnetite is in labile state, and upon disturbing influence on its crystal lattice, a spin re-orientation transfer accompanied by alternation of values of magnetic resistance and magnetic susceptibility takes place in it. At that the value of hyperfine decomposition of spectra is not much dependant on values of external magnetic field. In this case obtaining of zoned structure of energy spectra at the expense of the system of delocalized p-electrons of  $^{57}\text{Fe}$  isotope of impurity centers of nerve cells of the brain becomes available.

*Thus, mechanism of quantum-correlated interactions of biological system can be realized at the expense of energy increment by electron upon inducing and alternation of diamagnetic moment of impurity atoms contained in nerve cells of cerebral tissues.*

Low reproducibility is the main difficulty of using parapsychological phenomena in general practice. In order to increase reproducibility different methods of forming specified bioelectrical activity of the brain, upon which human paranormal abilities can be successfully realized are used.

Required organization of cerebral activity can appear either as a result of organic changes or by the way of purposeful training resulting in functional re-organization.

In the first case these are brain injuries (including birth traumas), ischemic disease, atherosclerosis, congenital features of brain composition, a number of psychical (epilepsy, schizophrenia) and neurological diseases.

In the second case these are different methods from the practice of yoga, rebirthing, hypnosis, eidetics, medication methods and methods of active forming of established cerebral activity by direct influence on the cortical part of the brain and peripheral sensory systems.

In 1975 R. Monroe patented the method of potentiation of paranormal state of the human brain at the expense of stereo sounds being entered into the right and left ear of a probationer with the difference of 4–7 Hz.

For increment of effect of supersensitive perception R. Richards and J. Ruddle (Oxford University) offered to use a weak alternating magnetic field resonant to theta-rhythm of the brain in combination with photic and sound stimuli. In the opinion of Prof. Rudolph Kapelner (Neurological Institute of Vienna University), excited by magneto-light-acoustic impulse cerebral hemispheres *"become a source of new-type mentality and new knowledge"*.

None other than Nobel Prize winner in physics Danny Gabor, the discoverer of principle of holography, made an interesting conclusion that ultraweak photon emission observable with all animals and plant organisms examined, sharply increases when the biological system starts dying (regardless of death type – whether as a result of, e.g. mechanical destruction, intoxication, overheating or freezing). Performed in parallel parapsychological researches (Right test) have shown significant increase of test effectiveness with probationers.

Dr. Siros Murphy, who has performed his studies of supersensitive perception in mental and cancer hospitals, states that high paranormal abilities were discovered both among patients of the hospitals and their medical staff.

Unique researches performed by Prof. Henry Abarbanel (Institute of Nonlinear Science, San Diego) in San Diego federal prison during death penalty by electric chair are of a special interest. Prof. Abarbanel marks anomalously high results of parapsychological tests (guessing of Zener cards) among prison officers participating in the death penalty. And these results lasted for the next two days. Thus, an officer who turned on knife-switch feeding the electric chair has correctly guessed the most (64–72 cards) of one hundred Zener cards containing five different geometrical figures (square, triangle, circle, cross and two parallel lines) in all tests. And before the death penalty, this number was about 22–26 cards.

Physics professor John B. Hayed of London has been studying psychometry during his researches of breaking of a metal bar. Thanks to that fact relying on large statistical material he discovered an increment of supersensitive perception effect among probationers upon destruction of metal.

*These and other experiments in the area of psychophysics allowed developing devices switching human normal perception by sensory interpersonal psychological reactions. With the help of these devices an intentional expansion of perceptual sphere (subconsciousness) controlled by researchers can be executed; a barrier between layer of consciousness and the area of subconsciousness carrying infinite quantity of information on visual environment is being destructed.*

In 1988 the US Congress assigned USD 145 million for research work on development of psychotron systems that allows determining location of pits of underground nuclear launchers and submarines with nuclear weapon aboard from stationary objects at the territory of the USA.

Tests confirmed by space photographs have shown effectiveness of the detection system developed.

CIA's claim that the USSR performs large-scale researches on development of psychotron arms sys-

tems and more than 30 laboratories in Moscow, Leningrad, Obninsk, Sverdlovsk, Chelyabinsk, Omsk and Novosibirsk take part in so called “supersensitive arms race” made American Congress worry and allowed to provide new investments into research work. In the further budget projects a share for this purpose was increased up to USD 450 million per annum.



*Space Shuttle Discovery*

Doubtless success of developers of psychotron location systems is detection with the help of “Titanian” equipment of collapse point of the top secret Stealth fighter “Lockheed F-117AE” with two nuclear bombs B-61 aboard crashed in winter of 1991 during the “Desert Storm” operation at the territory of Iraq.



*Lockheed F-117*

Similar new generation equipment is used by NASA (the US National Aeronautics and Space Administration) in distant space communication systems. During space flight on the “Discovery” space shuttle American astronauts performed tests of the “Ariel” system aimed for emergency communication

with the Earth in case of disabled radio communication or other emergency situations. The US Navy also tries to use similar equipment called “Umbriel” for communication with submarine crews.

This equipment is already out of military care. After the veil of secrecy was lifted from such equipment large group of devices called as “brain machines” becoming very popular in the USA, Japan and Western Europe was created.

The “Boeing” company has been already using systems of nonlinear control in aircraft construction very intensively. The computer that controls assembling projects images of separate units and details to monitor. The system of nonlinear control will report information on defective units in the most natural intuitive form.

*“We need an advanced technology to fundamentally change methods of designing and manufacture. We consider “brain machines” as an obvious next step”. (G. Hobbit, president of Boeing Technology Services).*



*Boeing 787*

The same Boeing has developed extremely original system for testing new aircraft models. Developers vary details of construction and with the help of nonlinear analysis obtain proper information on “weak points” in yet unbuilt aircraft.

Californian VPL-Research Company has developed and is continuously improving the most complicated procedure that allows obtaining three-dimensional graphic presentation of abstract massifs illustrating multifactor intuitive forecast of financial situations. The computer program simulates different probable extreme cases, while probability of their occurrence and credibility value of the forecast are being estimated with the help of systems of nonlinear analysis. According to postulates of entropy logic, situations of danger, risk or catastrophe are easily detectable in model experiments with the use of systems of nonlinear forecast.

*In any case practical application of “brain machines” for prediction of development of situations and making decisions under deficit of initial information results in additional profit to companies using such equipment.*

The developer of very successful designs of “brain machines” is the professor in psychology of Vienna University, specialist in electronics Rudolph Kapelner.

Thus, with the help of “AGM-Medium 12/60” device developed by AGM Corporation company (Linz, Austria) in collaboration with Vienna University a large accident at the nuclear power plant in Norway was successfully prevented.

Experience of using “brain machines” in archeology is very interesting. With the help of device of the same AGM Corp. Dr. Solomon Poppelarous discov-

ered previously unknown Greek colony established approximately in 1800 B.C. at the hill Assiros-Tumba in Asia Minor.

The latest developments of HGY Inc. firm in the area of computer supersensory medical diagnostics systems merit a special attention. Computerized tomographic systems and ultrasound scanners show stereoscopic picture of internals in any perspective required. Reference color imposed on the picture allows a doctor to intuitively determine areas of dyscrasia at the body’s projection.

*Each of these achievements is a result of long-term researches and significant efforts of developers and manufactures of such equipment. They all widely demonstrate unlimited abilities of systems of nonlinear analysis, search and forecast.*