Quantum Mechanics, Non-locality and the Structure of the Invisible World [A]

The Physics of Mind as the Basis of Reality

Abstract

The aim of the present paper is to describe a physical reality in which its two major components, mind and matter, are reunited. Historically, it was Descartes who invented this artificial separation, creating it for the purpose of better describing the inanimate world. Unfortunately, neither he nor his followers seemed to grasp the fact that the price to pay for a better, local understanding of nature would be the traveling of a rational dead-end road. As this paper will show, mounting evidence of strong connections between the mind and the material world, and the discovery of the Quantum Mechanical and nonlocal properties of reality are causing the defense of a Cartesian approach to matter to become as untenable as the Aristotelian view became after Copernicus.

Any serious researcher should never lose sight of the fact that science is always a provisional report, a system of beliefs historically conditioned by personal opinions about the nature of reality. Troubles always arise when beliefs become so entrenched as to become dogmas. The presently accepted provisional report mentions concepts such as space (distance) and time as essential ideas needed to describe reality. Is that really so? What happens to those beliefs now that, by using other natural properties like vibration and nonlocality, we can describe reality just as well? Indeed, the model of Reality here described depicts a whole, indivisible, frequential universe, pervaded throughout by an irreducible degree of non-locality that allows the interaction (in terms of resonance) of all elements, no matter how far apart spatially they may be. In this model, the role of mind is not that of a separate entity detached from the physical world; on the contrary, it will be shown that mind is the real originator of reality as we know it.

When people were trying to understand the solar system with algebra and geometry, they could only describe the planets' orbits. The invention of calculus was necessary to understand what actually happened. To comprehend the implications of this Reality, we don't have to wait for the creation of any new idea; the model is already explainable in terms of existing concepts such as resonance, emergence, thought-forms, archetypes and nonlocality. The difficult aspect, rather, is the willingness on the part of the reader to put aside memorized explanations, and to exercise unbiased reason and judgment.

Key words: Physics of mind, emergence, non-locality, quantum mechanics, string theory, archetypes, thought-forms, resonance, frequency and vibration, Cartesian thinking, paranormal.

The Present Model of Reality

The present model of physical reality describes nature as an assembly of measurable, readily identifiable elements – such as a human body, a tree or a planet – connected and possibly communicating among themselves by chemical signals or by physical waves, such as gravity, thermal, sound and electromagnetic waves.

As we will see, this model clashes increasingly with a view of Reality that arises from theoretical analysis and experimental findings. The discrete, reductionist, mathematical-model approach, used to explain the functioning of simple physical objects like engines or solar systems, is not suitable when we desire to explain more complex phenomena, like the origin of life, emergence, or man's collective unconscious. The use of present-day methods that try to assign mathematical "handles" to, for instance, the functioning of a cell or of the human mind clashes invariably with the GIGO limit, a principle well known to computer programmers: *Garbage In, Garbage Out*.

In contraposition to this simplistic model, a new model of Reality is emerging (as we will see) that describes a whole, indivisible, frequential universe. That is, a *Complete Reality* description, which is better explained in terms of energy vibration and unity, than by the use of time or space variables.

Its frequential base is supported by *String Theory*, that describes the elementary components of matter as solely made up of vibrations (*strings*), while the indivisible base of Complete Reality is supported by Quantum Mechanics' non-locality, now an indisputable property of nature [1].

The difference between the two models is substantial. The first one describes a partial reality that contains only discrete, non-related, merely physical objects, separated by forms of space that act as a sort of "neutral" divisors between elements. In this neutral space, the explorer is able to "glide" among these objects, observing and measuring them in a detached manner. In contrast, the new physics model of Reality describes a complete and complex energy field, that not only actively forms and fills all objects, but that also constitutes the medium that separates them. More importantly, the invisible mental aspects of nature described later (now dismissed as non-existent by current scientific thought) are part of this field and will be shown to play a primary, essential part in reality.

The presence of the frequency concept in the model allows a description of the many variations encountered in this energy field, while the non-locality property explains similar-vibration interactions. This approach causes the disappearance of some classical concepts such as space, dimension and time, and permits a better-fitting description of observed Reality [2].

In any case, whatever model of Reality man has chosen in the past or will devise in the future, it shouldn't be forgotten that its description is never an absolute Truth, but that it depends on the level of awareness of its creator. That is a consequence of the Quantum Mechanical law stating that perceived Reality is an outcome of the interaction between observed nature and the consciousness of the observer (more on this mechanism later). Because of these constraints, Reality model modification has occurred many times in man's history. Even within the confines of space and time, there have been, for instance, the startling alterations from a planar to a spherical earth, and from an earth-centered to a sun-centered solar system [3].

The Arrow of Action and Mental Energy

Let us now see what kind of evidence we have to support the claim that mind (and consciousness) could form the basis for the new model. To understand this foundation, we must first accept that the matter/energy that composes all of creation always manifests itself in stepwise, discrete manner. For instance, man's physical body couldn't exist as a living object if it weren't also made of a series of interpenetrating, subtler elements (such as the emotional and mental "bodies"), that set the aliveness and tone of the more dense physical body.

Perceiving a wider, stepwise, energy-manifestation law at work here, we can generalize the concept by introducing the so-called *arrow of action*. As the "arrow of time" describes the direction of the cause-effect sequence, the arrow of action dictates that any human action, or any concrete human manifestation (say, a gesture, the uttering of a word or the building of a house), must be preceded by a subtler manifestation that shapes and gives energy to the concrete, final result.

The arrow of time: *cause ---------- >> effect*
The arrow of action: *thought --------- >> action --------- >> element created*

This subtle, shaping energy is called the *mental energy*. Without it, without the preceding thought, no final physical manifestation would be possible. The question at this point is whether the introduction of the concept of mind in physics is a mere abstract tool to better explain concrete

reality, or whether mind has a more fundamental, physical existence by itself. Since mind is an essential participant in the linking of events that bring man to deal with physical reality (without which there would be neither definite nor purposeful, man-made physical shapes), we must conclude that mind is a physical quantity. Furthermore, since our senses are unable to perceive it, we can say that the nature of this *mental matter* is finer than that of physical matter. Therefore, thought is also a type of energy, a finer matter capable of *vibration* and *shape*.

Because of the indisputable connection between mind and concrete man-made forms (and the existence of man-machine interaction [4],[5] that well-proven scientific experiments have recently shown), we can also conclude that "There is no basis in the scientific description of nature for believing in the Cartesian division between mind and world sanctioned by classical physics. It now seems clear that this radical separation between mind and world was a macro-level illusion, fostered by limited awareness of the actual character of physical reality." [6]

The quality of the mental energy expressed (the thought) depends on the "emitter", the creator of it. Its fineness or coarseness sets up the quality of the final form; for instance, a sloppy thought as to how a house should be built will generate a badly constructed house.

The use of persistent mental energy directed towards the accomplishment of an objective, will provide a sufficient energetic scaffolding (or energy matrix) to materialize that goal. The target could be the manufacturing of an object, a business deal, the writing of a book or a conflict between nations; its final quality will depend, as stated, on the quality and the emotional charge of the *thought-form* produced. Similar thoughts tend to aggregate, much like stamp collectors do, originating thought-forms that represent the overall characteristics of the element(s) they represent. For instance, the thought-form aggregate of a group of people (such as a family or a tribe) represents all the qualities and facets of that ensemble. When a thought-form aggregation is big and sufficiently specialized, it can be called an *archetype*; thus we have the archetype of a city or of a nation, as well as archetypes of concepts such as Mother Earth, Justice or Beauty.

Whether we are dealing with an object, a society or an abstract idea, all man-made elements have been brought into existence by some form of human mental activity, driven by the arrow-of-action rule. This means that any single element created is underlain by a matrix of mental energy that shapes and defines the element. The quality of the human mental activity also sets up the amount by which the aggregate thought-form produced is aware of its existence in a "sentient" way. That is, it is endowed with *consciousness*.

The Mind of God

Looking at Reality (the total manifested world) in a general way, we see it as composed of man-made as well as of natural objects, both animate and inanimate. To explain the existence of all natural elements, by the law of symmetry we can make the reasonable assumption that the same mechanism governing man's creation also rules the world of nature. That is, the arrow-of-action rule must be valid for all Reality; therefore, natural objects are themselves endowed with the same properties as man-made objects. What underlies natural objects (man included) is a mental matrix originating from a Mind responsible for the creation of Reality; the Creator of all natural objects can be defined as *God*.

God the Creator (or Spirit, or whatever other name we like to use to identify It) is the thinker and producer of all mental forms from which *primal physical Reality* was created. That is, at the beginning of creation only God's creative Mind existed on earth, and nothing else. As the mind of created man evolved, it began to produce thought-forms useful to his/her life, as well as thought-

forms of a more abstract quality, such as ideas or feelings, both emotionally-positive and emotionally-negative charged. All these thought-forms ended up occupying the mental atmosphere of the planet, causing aggregates (the archetypes) in the manner previously explained.

Other than the mental creations of God and man, some evolved animal classes have formed primitive mental-group structures (animal archetypes, markedly in ants, bees and birds) that organize, supervise and direct the single components of these groups. These specialized thought-forms account for instinct and for the skills and abilities shown by the group as a whole (for instance, in birds the archetype guides the animal to build nests and to migrate). Also, each single animal belongs to a class archetype, responsible for the overall qualities of the individual. The higher the rudimentary mind of the single animal is, the more sentient the archetype will be.

Emergence and the Impulse towards Awareness

The impulse towards thought generation, characteristic of the human mind, leads man eventually to a state of consciousness, an awareness of his/her surroundings and of his/her self. The level of awareness depends on the quality of the mind's production: when this activity is steadily directed, consciousness will arise. In this sense, we cannot state that ants or bees are individually conscious, because the quality of their mental production is low and scattered. But they certainly possess a group mind, their archetype, that allows them to perform collectively in an intelligent, adaptive way. This is an example of *emergence*, the natural impulse for even the simplest elements to aggregate and organize towards greater complexity. Whether we are dealing with inanimate matter (the organizing of atoms to produce superconductivity is such a case), simple organic cells (the slime mold behavior exemplifies this tendency), or the structuring of a city, we see at work a natural impulse of single objects to cooperate among themselves, resulting in the organizing and shaping of matter [7].

Generalizing the emergence principle, we can say that its existence shows different manifestations of the arrow-of-action rule, and the natural tendency of manifested reality towards intelligence and consciousness. This is displayed from the dimmest thought-forms, to archetypes to the total awareness of a realized human being.

Man's Interaction with the Mental Atmosphere

In substance, where our physical senses perceive a well defined and relatively immutable physical reality, in fact is only the final manifestation of a process that originates at much finer energy levels. If not intuition, solid reason alone should convince us that the mental, invisible world is indeed the real generator of our physical world, because in it reside those vital components (mental forms) that shape and guide the manifested world.

An almost infinite variety of thought-forms coexist and are in contraposition to each other in this mental vibration. These energies interact according to their sentience and nature and, taken together, provide an atmosphere of consciousness to the whole planet and beyond. Moreover, the steady production and interaction of these energies cause a state of continuous physical creation (or of co-creation, as far as man is concerned), akin to a condition of "eternal becoming" (the steady-state theory of cosmology has a similar view).

In this model, thought-forms and archetypes should not be seen as mere mental constructs: convenient, descriptive abstractions such as mathematical models are. They are instead real, physical objects, which fully interact with all the other physical elements familiar to us. Indeed, the

planet's mental atmosphere is literally a turbulent arena in which all sorts of aggregations, resonances and dissonances, entanglements and pairings continuously take place, with a mechanism that will be explained below. In it, thought-forms – *mentals* – of varying degrees of sentience freely roam, interacting constructively and in opposition with each other and with men and animals. As far as man is concerned then, Reality is the continuously changing outcome of these interactions that affect *all* aspects of a person's life, including his/her mental and physical conditions.

Actually, ancient people already knew the model here described. Naturally, they didn't have the concept of thought-forms, and called "gods" the highest forms of archetypes. In fact, contrary to popular belief, many ancients were aware of a supreme, indescribable Deity that was the ruler of all things. Nevertheless, they preferred to relate to something more approachable, such as a powerful natural archetype (a god), in the hope of obtaining quick favors from it. With the advent of Christianity the concept of a "minor god" was discredited, but as in many other instances, an ideology can overrule Reality for only a limited amount of time. Furthermore, the Bible itself describes man's use of animal archetypes. For example, while in captivity in Egypt, Moses showed his mastery of thought-forms connected to small animals by provoking or driving out a number of insect invasions.

Since the archetypes' higher forms are endowed with considerable consciousness, they are capable of expression, and in appropriate circumstances they can be communicated with. These characteristics were known to the ancient Greeks who, for example, would see all thought-forms related to force and courage as an archetype personified by Mars, the god of war. This god could be "contacted" through the use of *mediums* (individuals with a mind capable of resonating with that archetype), in order to be granted courage and victory in war [8].

Dealing with man's life activities, there are archetypes relating to any kind of endeavor that interact, both in a constructive and in a destructive way, with humans. For example, the task of creating an intellectual work automatically attracts (by a phenomenon of mental resonance described below) the appropriate archetype (the *muse* of the ancients). If the person is aware of the mechanism (and if the contact is consciously sought), the contribution of the archetype will be the most effective. On the other hand, if the creator is not aware of it, the archetype will be attracted anyway, but its ability to help the creator will be diminished.

More generally, it is important to understand the concept of mental *resonance*. By resonance we mean the mind's ability to enter into contact with external thought-forms similar to those present in an individual's conscious/unconscious mental state. This is the mechanism that gives power to a prayer, that allows black magic to be effective, and that attracts unwanted energies in already disturbed minds or weakened bodies. If properly understood, its countermeasures would greatly alleviate, for instance, the conditions of residents of hospitals and psychiatric wards. This is because simple and reliable mind technologies, developed in the last few years, allow us to directly interact with many thought-forms and archetypes. The probing of these energies is also supplying qualitative as well as quantitative confirmation to the model of Reality here outlined [9].

Mind-over-Matter Effects and the Invisible World

Are there instances in real life that would confirm the existence of the *mental vibration*? Indeed there are many and varied confirmations of its reality. Since the dawn of man's evolution, its manifestations have been so numerous and "unexplainable" (according to classical wisdom), that irrational adjectives such as mysterious, miraculous, impossible or paranormal have been used in an attempt to explain or dismiss these phenomena.

While these occurrences are all explainable by the rules outlined in the next sections, for the sake of clarity its many expressions can be loosely divided into two main domains:

1) The *mind-over-matter* phenomena relate to the direct interaction of consciousness with matter or energy. The outcome of this influence is a control/modification of matter. This aspect is relatively acceptable to many people, since it derives from a commonly-perceived, natural ability of the mind to interact with matter around us; for instance, it is known the ability of an individual to get sick because of a worry.

2) The second domain, called the *invisible or subtle world*, relates to the presence, behavior and interaction between man and spirit beings of whatever typology. In this domain the beings actively participate in the phenomena observed. Of the two, this domain is the most important as far as man is concerned, because of the spirits' extensive interaction with people's lives and evolution.

The mental vibration span is shown below:

Mind-over-matter domain invisible world domain

>>>>> >>>>>>>>>>>>>> **Emergence of independent consciousness** >>>>>>>>>>>>>>>>>

The mind-over-matter phenomena include: psychic surgery [10], alchemy (the transmutation of matter), psychokinesis, matter shape-modification (as in spoon or key bending), materializations, telepathy and remote viewing, radionics (acting on matter at a distance), psychometry (the perception of thought-forms from an object), predictions, miraculous healings, bilocation, levitation, man-plant interaction, the display of yogic powers (such as interacting with the autonomous body functions and entering/exiting into/from a catatonic state) and breatharianism (the ability to sustain the physical body by forms of conscious breathing, without food intake).

There are also borderline manifestations, such as homeopathy, cold fusion and the memory of water, in which the natural tendencies of matter are helped to manifest (emerge) by the appropriate attitude of the person who does the interaction. Many of the phenomena mentioned above have been extensively studied by a number of reputable researchers [4],[5]. As mentioned previously, one of the last studies, performed on the mind-machine connection by the PEAR group at Princeton University, has incontrovertibly demonstrated the existence of such a link [4].

But a Cartesian mind is hard to modify. A classical example of how a skeptic's attitude might influence the outcome observed, could come from the conflicting results obtained by the Benveniste team and by its detractors in the now famous "memory of water experiments" [11]. Ironically, the negative results obtained by the skeptics might be a further proof of the existence of the mind-over-matter mechanism. The difficulty that the followers of classical physics must overcome is the fact that known natural laws often behave in remarkably different ways when dealing with consciousness and with organic systems. As examples, we can mention in biophysics the like-charge attraction of biomolecules [12], and in biological systems the violation of the law of conservation of mass [12],[13].

The invisible world includes spirit beings and their phenomena. This domain contains elementary thought-forms (such as those associated with low human emotions), all typologies of natural, human and animal archetypes, and nature spirits, up to the highest thought-forms. All these beings

are generally referred to as *spirits*, and since the duality of nature is still active at this level, these spirits can be classified (as already mentioned) as positives or negatives (or whites or blacks, or by any other kind of dual classification desired) according to the result of their interaction (resonance) with man. In fact, interacting with human beings is the spirit's primary occupation, so that they can be seen as natural objects complementary to man's evolution. Indeed, were we not to take into consideration the myriad of invisible mental forces existing here, we would not be able to fully understand our world.

While these spirits carry on their evolution without ever occupying a human body, the invisible world also includes a class of spirits, much smaller in number, who previously occupied human bodies. These are more appropriately called *souls*. Since souls belong directly to man's line of evolution, they are frequentially much more complex beings than spirits, so that the mental vibration in which the invisible world operates cannot contain the totality of their energies for a long period of time. Because of this temporality, the souls' impact on humans' lives is proportionately less marked. We can also include in the invisible world strange borderline beings, such as the Yeti and the Sasquatch. They are semi-physical, evolved animals that, by using primitive, instinctive emotivity, can span the visible/invisible world at will.

The Breakthrough of Quantum Mechanics

Let us now see more specifically how orthodox science itself can support the consciousness-based model here discussed. Before the advent of Quantum Mechanics (QM), there was no possibility that science would ever have allowed the entrance of the many-shaded, almost "spiritual" idea of consciousness into its stern, utilitarian halls. To the founding fathers of science – supported by reductive Cartesian thinking – it was as if God Himself had decreed that reality and consciousness should belong to two different realms. That creed had become as strong and non-negotiable as a dogma belonging to an established religion.

Their opinion came from a model that showed reality as being composed of discrete, separate elements that when probed could provide "hard, measurable physical facts" about the manifested world. In this imaginary reality the observer/experimenter, no matter what her opinion or level of awareness was, always obtained the same results.

The discovery that nature has QM behavior has changed all that. Specifically, the breakthrough came with the law stating that *an objective reality does not exist as such, since reality is created at the moment in which it is experienced. Furthermore, the manner in which that reality manifests itself depends on the consciousness of the observer/experimenter.* In other words, the mind of the observer has the potential to interact with physical reality (with matter and energy) and to shape it according to her beliefs [14]. This is the arrow-of-action rule. The law also specifically acknowledges that mental energy is a natural property and the generator of reality.

The use of QM as a descriptor of the physical world has always proved to be correct. Therefore, if matter can be expressed in terms of QM behavior, and if we accept that the interaction between mind and matter is a physical reality, we can conclude that mental energy itself should display some kind of QM behavior – at least in a qualitative way. Before we attempt do show this, we must consider the most important aspect of Reality that has emerged from QM: that of *non-locality*. Nonlocality (or non-separability) states that physical entities that originate under "similar conditions" remain connected even when their physical separation becomes millions of light-years. Furthermore, if one object is accessed, the other one will be affected instantaneously, or in "no time". Since all physical elements (waves, particles and components of more complex systems)

have been generated by the same source (identified by the primordial big bang or by any other initial genesis), we have the "similar conditions" previously specified. This allows us to conclude that nonlocality is a fundamental property of the entire universe and that Reality must manifest as an indivisible and undivided whole, even at its most primary and basic levels [1].

The discovery by quantum physics that the character of physical reality is non-local is certainly the most important revelation in the history of science. After all, even the Copernican revolution merely changed man's position in the universe. Nonlocality, instead, means that we are all indissolubly connected to it. In a literal sense, we are all at the center of the universe. Why has such an important discovery "Received such scant attention and stirred so little debate? One possible explanation is that some level of scientific literacy is required to understand what nonlocality has revealed about the character of physical reality. Another is that the implications of this discovery have shocked and amazed scientists, and a consensus view of what those implications are has only recently begun to emerge" [15].

Mental Matter and Resonance

By accepting that mental matter is the underlying energy structure of physical reality, we could say that physical matter is interpenetrated by an exact, mental-matter look-alike. This image is not as bold as it might seem; our own physical body is itself interpenetrated by a neural web (a mental structure) that sets the tone for the body's behavior. This scaffolding is confirmed by psycho-neuro-immunology, and by the unwanted consequences derived from organ transplants [16].

By including the activities generated by all sentient beings (as described before) in this mental-matter configuration, we can define the structure as a "mental atmosphere", a crucible that sets the qualities of the final product: physical reality as we perceive it.

Since physical matter itself is a type of energy (expressible also as a vibration), we can describe each physical element that exists in the universe as a form of vibrating energy, specific to that element. Naturally, that vibration will have also the mental component, the mental field which created that physical form and that defines all its qualities. Of the two components, the mental field is the important one since it is only through the mental field that physical matter can be operated upon. Therefore, the universe has visible as well as invisible elements. Examples of visible elements are natural or man-made objects such as electrons, spoons, viruses, rocks or galaxies, and organic structures such as cells, organs, animals or people, while examples of invisible elements are mental constructs or structures, like ideas, thought-forms or invisible sentient beings. Whether visible or invisible, each element or object has an individual energy structure and vibration (called a *wave function*) that completely defines its total qualities. Two elements possessing the same total qualities are indistinguishable one from the other; in that condition they have the natural tendency to behave as one [17].

How do these elements interact with each other? By the property of *resonance*, the universal sympathetic vibration that brings together qualities (frequencies) of a similar nature. In other words, resonance is the spontaneous joining together of two or more wave-functions.

We must understand that in a model of Reality based on vibration, frequentially-similar energies naturally belong to each other. Since nonlocality is a property of our universe, no matter how far "spatially apart" elements are, the only recognized measure and value that elements have with respect to each other is their frequency similarity. That is, how similar their wave functions are [18]. This is the explanation, for example, for telekinesis. In that "paranormal" phenomenon, the intention of the experimenter produces a mental-energy wave function similar to that of the object

to be acted upon, say a needle. When the two elements' wave-functions become identical (that is, when the mental energy structure produced is the same as that of the mental energy structure underlying the needle), there is a *superposition* of the two, and they become as one. Once superposition takes place, the mental structure of the needle is under the influence of the person, that at this point can exert her willpower to move the object (or bend a spoon or whatever) [19].

By the same reasoning we can explain unusual events like alchemy, telepathy or radionics, or common occurrences like love between people. This is also the explanation for the well-proven phenomenon of dogs being able to sense when the owner is coming home [20], and for psychic surgery, in which the healer is able to enter into energetic sympathy with the mental structure that holds the patient's body together, and modify (enter into) it.

In a mind-activated Reality, the world as we perceived it continues to arise from the relative strengths of all "mental" interactions present. Every time we think, we create a mental object (a structured vibration, a wave function) that impresses itself on the surroundings. Its impact is revealed by the details that emerge from the world of matter. For instance, tears caused by a sad thought are chemically different than those caused by cutting an onion. That is, their wave functions are different and they will contribute differently to the world around us.

Generalizing this concept, we can state that since all the world's elements are somehow connected by the universe's non-local property, they must have an even stronger coupling when they have similar-frequency structures. For example, a bird's archetype guides the behavior of the single animal while at the same time, if the bird learns new activities, that knowledge will be absorbed eventually by the archetype itself. Of all physical objects, water seems to be the most receptive to absorb and display influences around it. This quality is shown in homeopathy as well as in the "memory of water" [21], similarly, the Japanese researcher Masaru Emoto is able to produce photographs of ice crystals, which show how human thoughts, music, or concepts like love, or hate can affect the water structure [22]. Once the concepts of space, distance and time are eliminated and substituted by properties like vibration and non-locality, even the inverse square law is rendered meaningless. The disappearance of this law permits us to understand how seemingly unrelated or insignificant local events can cause significant consequences in other parts of reality. This leads to unexpected outcomes, such as the establishment of connections between man's actions and natural events, or to the even more counterintuitive reasoning that astral and planetary energies have some kind of influence on people.

Resonance can take place in a natural way (as among the components of an ant colony while guided by its archetype, in a flower or plant absorbing energy from the sun, or in a speaker enthralling an audience), or in an induced way, through the conscious effort of the doer. Examples of induced resonance are noticed in prayer groups and in the extremely dangerous (for the doers) practice of black magic. In the first, people pray together for the healing of a sick person, sending her healthy thought-forms, while in black magic resonance is used to enter into contact with the wave-function of an individual, in order to attach harmful thought-forms to it.

The Maharishi University of Management has performed demonstrations of the impact of group consciousness on reality several times in the U.S. and in other parts of the world. The experiments involved the creation of coherence-creating groups (composed of thousands of people at a time), that by group meditation are able to reduce crime rates in specific locations. In one such experiment, researchers predicted in advance that the calming influence of group meditation practice (that is, the production of appropriate thought-forms) could reduce violent crime by over 20 percent in Washington, D.C. during an 8-week period. In fact, the findings later showed that the rate of violent crime – which included assaults, murders, and rapes – decreased by 23 percent during the June 7 to July 30, 1993 experimental period [23].

Wave function coherence is also known in Physics. Its application to light has given us the laser, while applying it to atoms can produce a single, giant "superatom" where all the single entities seem to "sing in unison" [24]. As far as people are concerned, we can imagine how knowledge of the power of group consciousness will be utilized in the future, in more mundane fields like sports and artistic performances, to boost the achievements of individuals. At the present time we are already familiar with the so-called home-crowd advantage, but with non-locality, all that is needed for a group of people to give mental support to players or to performers is the understanding of the mechanism [25].

In any case, the existence of visual technologies like television and film are already contributing to an increase in the coherence of the thought-forms collectively produced by mankind. For instance, the televised showing of a paranormal spoon-bending demonstration in England a few years back produced a rush of temporary emulators. But wave-function coherence is not always beneficial to humanity. We can think that, before the advent of television, any negative thought-form arising from a tragedy was confined to the eyewitnesses. Now, events like the 9/11 attack in New York, seen by millions of people around the world, have caused the amplification and strengthening of the negative image produced. This is certainly harmful to the mental atmosphere of the planet, since their existence is bound to reverberate in other human and natural activities.

The last but most important aspect of resonance has to do with the interaction of all living systems with the sentient thought-forms that populate the mental atmosphere of the planet. We have already mentioned that each animal group has its own archetype. In addition, animals with some intellectual capacity (like dogs, horses or lions) have some elemental, semi-sentient thought-forms associated to them, with characteristics similar to the "personality" of the specific animal. These primitive spirits attach themselves to animals with the same determination as limpets fastened to rocks.

But many more entities seem to have an affinity and liking for man, and these negatives consider man to be their preferred possession. Indeed, the personality, taste and behavior of each person naturally attract sentient, parasitic, negative energies that display traits similar to the characteristics of the individual they associate with. These energies have a tendency to provoke or accentuate negative physical or psychological conditions encountered in the person. Naturally, man attracts also positive sentient energies, especially when the individual endeavors to consciously pursue improving his/her present personality and spiritual life. In that case, any activity pointing to that goal will attract appropriate, helpful spirits that will support and inspire the work of the person.

Some Conclusions

There is a famous anecdote reported in the diary of Magellan during his circumnavigation of the African continent. Upon arriving at a fishing village, the explorer wrote that the villagers hadn't seen sails before. His amazement was derived from the fact that they didn't seem to be able to perceive them, even after the sails were pointed out to them.

Although the story of the villagers' simple-mindedness might make us smile, we tend to be less understanding about more erudite people who don't seem to see the evidence of a new reality, even when that has been abundantly pointed out to them. But this short paper was not prepared to convince the Cartesians; that is not necessary. Its purpose was to summarize and assemble apparently unrelated facts of nature, and to show that some of Physics' concepts – like BEC condensates, non-locality and wave coherence – are only that realm's equivalents of properties also displayed by the human mind; the reason being that all manifestations of nature always behave in the same manner. Evidently what it is required from some people, in order to accept the unity of the

universe, is to stop uncritical support of century-old conclusions about the nature of reality. As researchers discarded the older, Aristotelian description of nature when it didn't fit the evidence gathered, new mounting scientific evidence should compel any rational mind to acknowledge that nature is one and indivisible in all its manifestations, and that Mind is the prime creator of the physical world. This being the case, a rational mind must also have the courage to conclude that not only our planet, but also the entire universe is endowed with some type of consciousness.

If we were to ask ourselves how man will perceive reality in the year 10,000, the answer we cannot know. Even our 100-year forecasts have been proven to be consistently ridiculous. What we *can* firmly say, though, is that the unification of mind with matter will definitely be a part of that future vision. We can also state that, long before then, it will be recognized that man's mind does not arise from some neuronal activity but that it is a free standing, independent, sentient structure. It just needs a neuronal network to express itself in the physical world. Unavoidably, that recognition will shift man's sphere of activity from the realm of matter to that of mind.

What definitely won't happen, neither in the year 10,000 nor beyond, is the rising of a Theory of Everything; that is, a "mathematical" formulation of the workings of manifested reality. This is an utter impossibility since any rational explanation of the world, to show completeness, must take into account the existence of the invisible world. But that world is "open ended" at its outer boundary. Meaning that, at certain vibrational levels, some higher, organizing (spiritual) principles bring any rational reasoning very quickly into indeterminacy.

Stating it another way, the marvelous-but-finite mind of man will never be able to rationally understand the workings of the bigger Mind that created All. That would be as absurd as pretending to explain the universe by the only use of arithmetic. In substance and conclusion, it is hoped that the above explanations show the necessity for any serious researcher to believe (in the individual's own way) in God's existence and function. Failure to do so would entail the exclusion of that researcher from any clear understanding of the world in which he/she has the good fortune of living.

R. Lampis, September 2004

Note: It is possible, within limits, to give some mathematical structure to the Theory here outlined. Researchers who wish to contribute any suggestion are warmly invited to contact the author at rilampis@tin.it

Notes

1) After the demonstration in laboratory of the existence of nonlocality by Alan Aspect and his co-workers, "The recent experiments by Nicolus Gisin and his team at the University of Geneva were designed to determine whether the strength of correlation between paired photons in space-like separated regions would weaken or diminish over significantly large distances. This explains why the distance between detectors was extended in the Gisin experiment to eleven kilometers. The results provided unequivocal evidence that the correlations between detectors located in these space-like separated regions did not weaken as the distance increased. And this obliged physicists to conclude that nonlocality or non-separability is a global or universal dynamic of the life of the cosmos." Nadeau / Kafatos, *The Non-Local Universe*, Oxford University Press, p.79.

2) It must be said that even nowadays some "primitive" cultures have difficulties in grasping the concept of space, feeling mentally more at home with the idea of the "here and now".

That is, to these societies nature is seen as different forms of manifestations belonging to the same location. As for the concept of time, it is known that North American Indians, in such statements as: "We'll meet tomorrow by the river", interpret synchronicity in quite different ways than western minds do. To cultures with such a vision, reality could be fittingly perceived as a "conscious vibration without space".

3) The transition from a space-based to a frequency-based Reality would provide us with much more information about the Universe in which we live. An analogy could be drawn to the mathematical modeling of electromagnetism. When its description changed from the time to the frequency domain (by using the Fourier transforms), there was an increase in our understanding of the behavior of electrical energy, allowing the creation of the electrically based society as we know it today.

4) Extended experiments, aimed at exploring the man/machine interface, have shown an incontrovertible influence of man's thoughts over some simple machines – see, for instance, the studies done by the *Princeton Engineering Anomalies Research (PEAR)* Group, Princeton University, USA; and by the *IGPP (Institut für Grenzgebiete der Psychologie und Psychohygiene*) in Freiburg, Germany.

5) Stelter, Alfred, *Psi-Healing*, Bantam Books.

6) Nadeau / Kafatos, *The Non-Local Universe*, Oxford University Press, p.198.

7) See Steven Johnson, *Emergence*, Penguin Books.

8) The contact was usually done in "sacred" locations, the most famous of which was the temple of Apollo (the archetype of harmony and balance) in Delphi. The Oracle of Delphi, active for many centuries, was staffed by female mediums, called Pythia who, after going into a slight trance, would speak Apollo's answers (conveyed in wordplay and puns) to the consultants. The historian Plutarch gives an eyewitness account of an occasion in which, to please an important embassy, the Pythia was asked to go in trance on an inauspicious day. The medium was immediately seized by a powerful, malignant spirit that, after much groaning and shrieking, caused the woman to collapse (and die after a few days). See *Questioning the Delphic Oracle*, Scientific American, August 2003. This episode reminds us of the dangers that befall mediums not properly directed by the conductor responsible for the thought-forms' handling.

9) In this field, control is the key to successful, safe contact and repeatability. For the procedure describing the access to the invisible world, see, for example, www.spiritaction.net

10) The phenomenon of psychic surgery (spiritual healing), as practiced by Filipino and Brazilian healers, although placed in the mind-over-matter domain, needs the active cooperation of highly evolved sentient beings for its effectiveness.

11) http://www.guardian.co.uk/Archive/Article/0,4273,4152521,00.html

12) The like-charge phenomenon, that has fascinating analogies to superconductivity, occurs in "polyelectrolytes," molecules such as DNA and many proteins that possess an electric charge in a water solution. See *Phys. Rev. Focus*, 21 July 2003, http://focus.aps.org/, and

http://www.aip.org/mgr/png/2003/198.htm. The production of biomatter (the transmutation or generation of matter arising from biological activity), has been observed in several experiments to occur naturally. See Von Herzeele, Albrecht, *The Origin of Inorganic Substances*; Hauschka, Rudolf, *The Nature of Substance*, Sophia Books.

13) Kervran, Louis C., *Biological Transmutations*, Swan House Publishing Co; Stelter, Alfred, *Psi-Healing*, Bantam Books.

14) In spite of the evidence in favor of this mechanism, our minds would find it hard to accept, for instance, that Galileo's experiments on the acceleration of iron balls rolling down an incline could have been influenced by his mental attitude. In fact, that influence is too weak to take into account. To be able to mentally-modify a physical structure, first there must be a resonance between the two elements. When these two are vibrationally too dissimilar (see the description of wave-functions below), that is not possible. An ordinary mind is able to interact only with "receptive" energy structures like, for instance, delicate chemical reactions or water structures.

15) Nadeau / Kafatos, *The Non-Local Universe*, Oxford University Press, p. 1-4.

16) In an organ transplant, the mental structure underlying the organ is transplanted as well. Oftentimes, these mental insertions bring unexpected and unwanted memories and habits to the recipient. Of the many cases confirming this mechanism, one of the most exemplary cases of this type of occurrence is the episode of a strictly vegetarian woman who, upon receiving a new heart (from a young man who died in a motorcycle accident), was overwhelmed by an uncontrollable craving for hamburgers and French fries, the usual diet of the deceased man. This is a clear indication of how one's mind and memories impregnate the material body. See Paul Pearsall, *The Heart's Code*, Broadway Books 1998. See also http://home.wxs.nl/~keesnoor/heart.htm.

17) For identical elements, arithmetical one-to-one correspondence breaks down. In this condition, $1 + 1 = 1$ and the unit element itself is indeterminate: $1 = 1 + \ldots$.

18) Conversely, when the wave functions are dissimilar, there couldn't be any interaction. That is the case of the natural electrical phenomenon called "ball lightning". This electric charge is able to penetrate many solid structures (like a wall) and remain intact, because the two wave-functions (lightning and wall) are too dissimilar to be able to interact with each other. See also (www.aip.org/pnu/2004/split/669-1.html) for an experiment of interpenetration between solids.

19) The resonance mechanism also explains why, during "paranormal" events, similar but unrelated objects situated in the proximity of the experimenter seem to be affected as well. In any case, maintaining superposition requires a great deal of effort from the experimenter's side. The Russian Nina Kulagina, one of the most-studied psychics, had to lie down after each psychokinetic effort. See Alfred Stelter, *Psi-Healing*, Bantam Books.

20) See http://www.scientificexploration.org/jse/abstracts/v14n2a4.php

21) See Elia, V., Niccoli, M., *New Physico-Chemical Properties of Extremely Diluted Aqueous Solutions*, Journal of Thermal Analysis and Calorimetry, Vol. 75 (2004), p. 815-836.

22) See Masaru Emoto, *Messages from Water*, Hado Kyoikusha Co., Ltd. See also, www.masaru-emoto.net Off course, the personal beliefs of Dr. Emoto help the emergence of this phenomenon.

23) See http://www.mum.edu/m_effect/methodology.html

24) This new state of matter is called a BEC condensate. See Steven Strogatz, *Sync*, Penguin Books, p. 134.

25) Since any wave function produced is capable of interaction (and resonance) with other wave functions existing in the mental atmosphere, it is difficult for a single individual to maintain concentration during daytime (because the "noise" of all thought-forms produced by mankind's active minds swamps the signal produced). It is for this reason that many people prefer to meditate at night.