

The Process of Thought, Neurological Completion, and the Electromagnetic Dynamics of the Mind/Brain Relationships

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Abstract

Neuropsychological research on the neural basis of behavior, emotion, and memories generally posits that brain mechanisms will ultimately suffice to explain all psychologically described phenomena, but as we know today this is not true, and we must look more at the brain being a organ like the rest of the body, and that IT mediates OUR mental control and actions from our self and mind. This assumption that biology and classical physics forms the idea that the brain is made up entirely of material and not of any other physical workings, like quantum dynamics or coded and complex particles and fields, and that all causal mechanisms relevant to neuroscience can therefore be formulated solely in terms of properties of these elements. Mentalistic and/or experiential content (e.g., "feeling," "knowing," and "effort" "belief systems") are not included as primary causal factors. This theoretical restriction is motivated primarily by ideas about the natural world that have been known to be fundamentally incorrect over a century. Contemporary basic physical theory differs profoundly from its seventeenth to nineteenth century forbearers on the important matter of how the consciousness of human mind enters into the structure of empirical phenomena. Our new understanding of the mind, humans, physics and the universe have given us new principles that contradict the older idea that local mechanical processes alone can account for the structure of all observed behavior, personality, and consciousness, and our excess o memories and past information and data to learn new mental and physical experiences. Quantum physical theories bring directly and irreducibly into the overall causal structure certain psychologically described choices made by human agents about how they will act, think, live, and learn to develop there own individual personality. The key development in basic physical theory is applicable to neuroscience, and it provides neuroscientists and psychologists with an alternative conceptual framework for describing neural processes. Indeed, due to certain structural features of ion channels critical to synaptic function, quantum and electro magnetic field dynamic physical theory must in principle be used when analyzing human brain/mind dynamics.

Key Words: mind, brain, consciousness, quantum brain theories, electromagnetic brain theory

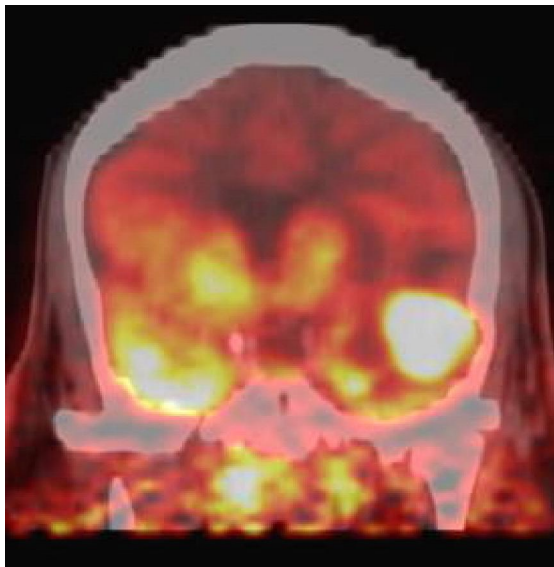
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Introduction

The intention of this work and research is to view a different idea of the mind, personality, behavior, belief systems, mind, and consciousness. As today the biological, neurological, and philosophical science have all come to a dead end, and so the view of psychology and mind must now be analyzed in both classical and quantum views of physics. Today we co-operate less within our views instead of following to obvious answer, an incorporation of classical and quantum allow us to form a better working model of mind and brain.

The evidence of neuroscience and neuropsychology of the extensive use of functional brain imaging technology electroencephalography (EEG), Magneto encephalography (MEG), positron emission tomography (PET), and Functional magnetic resonance imaging (fMRI) has revealed, at the empirical level, an important causal role of directed attention in cerebral functioning, by way of the mentally control and individual way we mediate our inner self sans the brain and so interact with the classical and material world.



PET-CT brain imaging.

The identification of brain areas cognitively involved in a wide variety of mental and biological actions and recollections processing functions concerning learning, memory, development and various other kind of unsolvable human mental functions have been the subject of extensive and intensive investigation. Thanks to the help of modern technologies and human interaction with them, we now have a reasonably good working

knowledge of the various different brain areas that are used in the internal and external world of processing complex information. But as with all science studies in both the classical and quantum arguments, they provide only the ideas and information for, not the answer to, the question of the relationship between the mind and the brain described in any psychological terms and those that are described in neurophysiological terms.

Classical physics in general can only analysis and compile date based on matter and the nature of matter, and how it interacts with the world, and so realms of the quantum are not seen to be relevant to biological systems. Quantum physic on the other hand, has the benefit of a more open and un-structured system, in witch to analyze data, it can deal with the electromagnetic and particle views on mind and consciousness, and also gives more emphasis on mental systems like belief systems, memories, and experiences ands how we use them individually to develop our own mind and consciousness.

P.P.T's Theory

P.P.T's (psycho philosophical therapy) theory of mind is a quantum model of consciousness and mental process in the brain based on the presumption that an electromagnetic structure exists on a quantum-trans- dimensional level of information, contained within the electrical frequencies of the brain/mind interface, and therefore bypasses the central nervous system and the brain, and its processing functions, in which electrons or particles can move between the frame work of other neurons or group of neurons within the brain, creating a quantum neural network overriding the biological system and causing a mental quantum physical mind.

If this quantum "form" exists then it's electromagnetic systems may produces consciousness within the brain and contain the structure of mind, memory, self, and individuality development that directs the behavior of our brain and nervous system, an so ourselves and contain the structure of mind, consciousness, and belief systems that we exist on in our everyday life and development. The choices and behaviors we choose to used depending on how we use information in any given situation, is witch is in it's self individual and is influenced in small by the given environments and situation we encounter in the material world.

Our nervous system operates by means of synaptic messages (connections between nerve cells all over the body), and our brain is the organ we use the control that system based on our mental choices and mental interactions with our biological body.

But our mental/mind system may work by means of a quantum effect and structure, the mind being a structure of particles passing through an energy barrier like the frequencies of electromagnetic forms, and the brain uses this to express our inner mental self and personal beliefs systems to the outside environment. We know that both biological and mental systems affect each other, if we are mentally stressed (angry, love, depression, stress) we affect our bodily functions (endocrine, immune, digestive, blood networks, systems, heart).

But also if there is damage within any region of the brain, it can affect mental coordination and frequency of the electromagnetic process of the brain and control, like language, interaction, loss of self, loss of mental and emotional conception, social understanding and interactions. So both views of the human mind are valid and have to be used to research the problems of today's world, we know the brain is important in our mental life *but* we also know that it is our mind/self that controls that brain and body, because we can see and record the interactions with ourselves and the brain, like EEG, and new advanced BCI systems that can read and decode electrical activity of our mental control over our brain.

Current methods of mental relationship with the brain and our subsequent control over the body can be seen with BCI systems, (which can be seen on my work into brain computer interface devised) this research is important due to its evidence of the control we have over our brain because of the pre-thought process before brain nerve conduction, but also the possibilities of this proving that consciousness is present in individuals with severe neurological shutdown. One other thing about this line of research is control of remote systems like TV, radio, electronic systems (brain computer interface, BCI), all with the power of mental thought process and brain interaction and mediation of the electrical activity and subsequent decoded information transmitted by some type of transmitter and receiver software and hardware systems.

The main problem with any theory based on a structure that can not be dissected or put in a jar, like (a lot of psychology today) is that our physical body is governed by classical laws of physics. Like the brain, deoxyribonucleic acid (DNA), the material world. And our mental/mind works by means of quantum laws of physics and theory's of mind and its workings. Consciousness in any argument is driven by quantum laws, even if the brain's behavior can be described by classical laws. We know the brain is important and we could not exist in mind and interaction in the material world without it, but we also know that there is a governing system that controls the brain, like the thought process that starts the initial nerve action potential in the brain (pre nerve thought process) and the cognitive interaction of the various nerve regions formed from our own active mental structure, and so dysfunction of the mind does not mean the brain is that certain emotion, action, or function and *visa versa*.

A quantum theory of mind is based on the premise that quantum theory is necessary to fully understand the mind and brain on an interactive level, and that the mind and brain work cognitively but are on separate levels of physics and dynamics, and so dysfunction in either one could cause problems in the other. Quantum theory particularly concerns an explanation and inquires of consciousness in humans and how that plays a part in the mediation of information, memory storage, creativity, abstraction, conception and construction of information and ideas and mental/physical interaction with the physical and mental world, and how belief systems develop and how and where they are contained.

Approaching the mind-body problem based on physical/biological has been held to be the proper way in which to study the mind and brain relationship, even if classical mechanics can only deal with matter and the relationship of matter, and not the quantum areas of mind/consciousness physical relationship. Quantum theories have been particularly intriguing for scientists eager to provide a physical explanation of consciousness, and conscious mind, and this is not biological in nature in principle, because of the form and nature individual workings of thought.

The point is that consciousness is unlikely to arise from classical mechanics of matter because of the fact that the more we understand the structure and the workings of the mediation control and interaction with the brain, the less we understand how consciousness or mental functions or structure can be within the brain as a whole at all. Because we use EEG and MEG to map out the activating areas of the brain and regions when we give a mental or physical task to complete, and therefore see the counter cognitive relationship within the brains neurological activity, not that the activated areas *are* in itself the mind or function contained.

In quantum mechanics, the relationship between the parts and the whole is completely different than that of classical physics so the presumption that the mind maybe a form of physics not yet understood is not out of the question and so an incorporation of both areas of physics is needed. Reality and conscious mind and thought can be seen as a sequence of wave functions and electromagnetic field's that contain and to a point control the brain and our body's, so who can not really say wither or not the mind is a form of relationship of particles that can form a mind and structure that defies modern physiology and neurology.

Quantum theories allow us to view the concept of matter or the physics in the brain mind argument differently, as every year that goes by show's us how much we differ from animals and there neurological workings and interactions with there self's. Of course, the danger in this way of thinking is to use consciousness and quantum arguments only because they are both philosophical science and little understood today, without the advancements in our own understanding of matter, technology and the physics of the universe, can we understand new ways in witch to study mind/brain interaction and functions. But also we must look at the possibility of information matrix contained within the electromagnetic field or quantum structure of the brain that could constitute for mind and consciousness in humans.

This had been viewed in passed years as a minority opinion in science, psychology, although it does have the support of well-known physicist's and psychologist's today, as the more we understand the brain, the less we can see the attributes of mind within the structure of the brain like belief structures,

personality, individual development, creation, abstraction, and concept ional thinking and mind, so the psychology of mind can again be a separate part of the study of human mental and physical structures and interaction and relationships, putting the mental and physical into separate areas of incorporated field's that help to progress each other. If we know we control the brain, and EEG shows this process of control over the different lobes and cognitive affects, then there must be two separate structures within the human form to study and progress the understanding of mind and human functions in personal life and social.

The individual that created this field is the biologist Alfred Lotka, who in 1924, proposed that the mind controls the brain by co-ordination or mediating the quantum structure that would otherwise lead to a completely animal like existence or vegetable like state in humans, so only the autonomic systems functioned but no personality or mind was present, a little like a dualist belief of, Descartes, Plato. As when we really look at a detailed and tiresome debate of the human and animal systems, we can see that there are no real similarities, but the ones we see ourselves, and that is the main problem with looking at a subject in a singular minded view and not excepting more open systems of analysis (one's that are hard or at this time impossible to prove).

The main argument against the quantum mind theory's are that the structures of the brain are much too large for quantum effects to be important, unless there is a sub-structure within the electromagnetic physics of the brain itself that constitutes mind or quantum mind, and contains the memories, personality and consciousness of that individual. But quantum chemistry is required to understand the actions of neurotransmitters, neurons, brain electro activity, and electro-magnetic behavior.

Neurobiological descriptions of the brain are based on Newton's Physics, This is a bi-product of Descartes division of the universe in matter, spirit, body and mind, and it deals only with the matter, chemical's biology, physical biology, and neurobiology. Most neurobiologists reach the conclusion that quantum Physics cannot explain consciousness or mind, since they are using a Physics that is primarily the study or matter and physiology and not consciousness as an area of mind on a

quantum physical level or dynamics that is not that of a physical or biological form, structure, or system.

Consciousness could be seen as information about the pattern of personal individual self. Information becomes therefore the link between the physical and the conscious. Ultimately, everything in the universe could be conscious to some degree, like the consciousness of insects or animals on an animal and behavior environment effect and interaction level, as animal behavior can be seen and is generic, but humans are not consistent in their behavior, actions, choices, and personal development.

This theory ties itself in with the electromagnetic theory of consciousness and mind, and its interaction with the brain and outside world.

This theory and its adaptability can be associated with such areas as, reality tunnels, psycho-dynamics, dualism, sub-conscious systems, information/memories, imagination, and cognitive evolved learning, also dreams as a means of detailing the cognitive process of mind and brain and the way we meld the information past and present, into dreams and new ideas from our personal memories and experiences.

Electromagnetic Theory of Consciousness

Electromagnetic theory of consciousness is the theory that the electromagnetic field created by the brain and nerve transmission, and the mental/physical interaction, is the mind itself in some form of energy matrix, and this can be recorded by EEG, MEG, and is argued by many to be the carrier of conscious experience and interaction on a material level by our psychological self.

The theory was proposed by scientists such as Susan Pockett, Johnjoe McFadden (evidence for an electromagnetic field theory of consciousness"), and E. Roy John (Quantitative Analysis of Human Brain Electrical Activity). It is a delicate but very interesting view, and one that today is becoming more and more relevant to the study of mind and brain relationships and interactions within the conscious mind and the biological body.

The bases of any theory about the quantum arguments of consciousness and mind are the fact that every time a neuron fires to generate an action potential, the point of permeability of the nerve cells, to ions inside

and outside of the cell body to the transmission encoding of enzymes, (neurotransmitters) it also generates a disturbance to the surrounding electromagnetic field, and so involves the area of quantum mechanics and classical mechanics, to explain the effects of this on a mental and biological level.

The complicated chemical transmission within neurons firing patterns affects the brain's electromagnetic field. Locating consciousness in the brain's electromagnetic field, rather than the neurons, has the advantage that it may account for how information located in billions of neurons scattered throughout the brain, can exist on a mental level creating aspects like, personality, creation of individual ideas and conceptions, belief structures and mental systems abstract thinking, language, art, architecture, literature, music, and other areas that are not present in the Animal (mainly mammals) society.

All stimuli outside or any mental internal information can be unified into a single conscious mainframe. There is also the two-way binding problem that the brain/mind or mind brain interfaces need to complete, to store or retrieve (recollection) information or memories for cognitive use and assimilation to evolved learning, conceptions and ideas. All the information could be contained in an electromagnetic field structure of the brain or mind. This allows for the distinct separate structures of brain and mind to be studied, a dualist view if you like.

If we use this view of consciousness we can consider many new areas of study and research, and technological science, like BCI systems, and remote interactive transmission devices, powered by controlled thought process, and also better control over our body and mental functions.

P.P.T's theory tries to account for several otherwise puzzling facts in the psychology and neurology arguments, such as attention, awareness, creative thought, imagination and beliefs system that tend to be correlated with pre-mental nerve conduction (the mental process before any brain centre is activated or motor function is activated) and not with the firing of individual neurons, but with the co-ordination and cognition of lots of neurons, and its electromagnetic field and affects.

When nerve cells in the central or peripheral nerves system fire together (which

they do even for the smallest of mental/physical interaction), their electromagnetic field combine to generate stronger field disturbances and therefore different frequencies. So simultaneous neuron firing will tend to have a bigger impact on the brain's electromagnetic field than the firing of individual neurons.

There are different theories in this argument and can disagree (as with most areas of any science do) as to the role of electromagnetic structures and affect the field has on brain and mind functions, as we know that electromagnetic fields effect nerve functions and the ions positive and negative that can effect our body functions. If these theories are correct and there are two separate structures within the human form, so that we fall into the view that, either the brain in its evolution has created the structure of mind or that the mind was always there, but needed the brain to evolve to have the ability to interact with the outside world on a mental and material level.

This has major implications in the areas of evolutionary biology, neurology, and some areas of psychology, that believe that the human mind is physical by nature, but also for efforts to design consciousness into AI machines, current microprocessor technology is designed to transmit information along electrical channels, and more general electromagnetic effects are seen as a nuisance and stamped out.

If electromagnetic theories are right this is directly counterproductive to the process of AI systems, which would instead have electromagnetic fields that co-ordinate its outputs.

But "what" are consciousness and mind and what substance is it made of. Many attempts have been made at explaining consciousness by resembling it to something else. There is no way that our mental and individual personality, belief systems sensations can be explained in terms classical matter, but more of particles or quantum physics. At this time in our mental evolution we have a long way to go in both directions as to find how consciousness arises at all?

I believe that, no matter how detailed the research provided of the neural processes and the brain that led to an actions, that we will never explain where the mental activity associated to that action came from unless we

use and except other ideas and research directions. No theory of the brain today can explain why and how consciousness or mind happens in humans, if we assume that consciousness is somehow created by some neural framework which is completely different in structure, function and behaviour from our feelings, and then we have to prove it. If this is true then we are no more than autonomic creatures, like animals and we know that not to be true, from evidence from humans and there psychological mental personality and development in our life's.

From a logical point of view, and from someone that has spent many years in psychology from a scientific and philosophical view, the only way out of this problem is to accept that consciousness must have to be found in both mental mind and physiological brain properties and something that we can work on as a scientific and philosophical progression and evolution of human thinking and co-operation.

Like other people, I believe the existence of consciousness as separate from the physical properties of matter as we know them in the brain and science today, but also, consider consciousness or mind are a physical property that is a creation of other physical properties that we at this stage of our lives, can not understand, but soon will.

The search continues...

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