

## Passive or Creator's Consciousness in view point of 'Orch OR' theory

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### Abstract

The ultimate goal of artificial intelligence and cognitive science is to understand the nature of human consciousness. It is based if it can be understood and modeled can be created artificially intelligent systems, like human power of thought and the slang of life. Therefore Consciousness is the most important issues that the mind of anyone who thinks deeply stuck in and science has not yet given a convincing answer to it. Here are the available models in order to explain what is consciousness and how can create? Orch OR is the theory that attracted attention all scientific domains and it can be the best response to questions in the different scientific fields which had suggested and we applaud the idea not only physically but also biologically. On the other hand as you know each theory can have different ontology according to various philosophical schools. In this article, we've got a summary and a review of Orch OR theory and then we point in short to the section of computing from the physical point of view Orch OR. In the following, we discuss about different ontology for consciousness and since we tend to pansychism philosophical approach and we accept ontology it, we will reason that all existence antilogies are similar to the pansychism philosophical approach. And finally we propose a new classification of Consciousness based on the pansychism philosophical approach. We hope with this classification to provide a new direction for the study of Consciousness in different field scientific.

**Key Words:** consciousness, microtubules, computation, orchestrated objective reduction Creator Consciousness, Passive Consciousness

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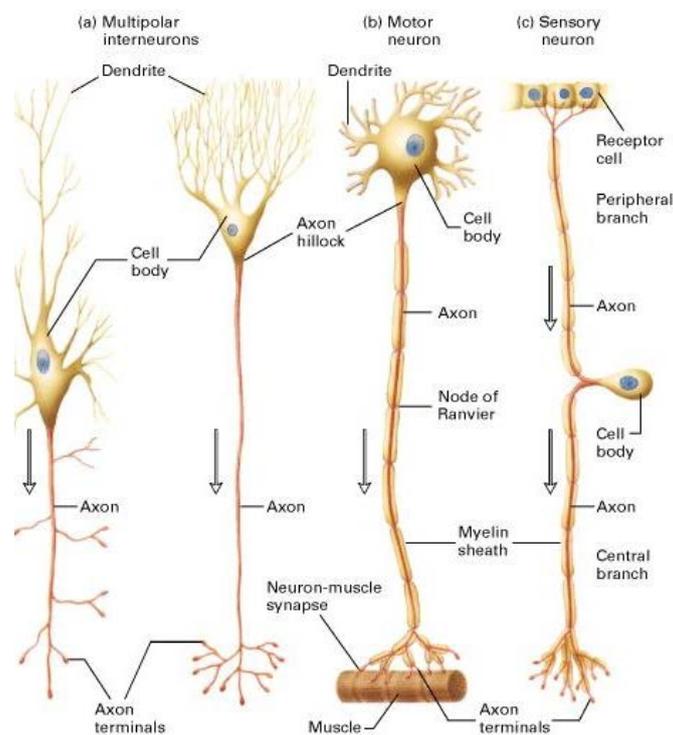
## Introduction

Misty physical environment that humans started several-more astute not see, but he knows that comfort life Nature is in danger due to misunderstanding. New physical transformation caused that the human being finds the mathematical insight as to the nature and all the phenomena of the physical and natural to introduce mathematical description. Although the predictions of quantum model was compared with experimental results, according to a team of physicists need to get to understand the physics of micro world and not superficially but in depth, step. As Hameroff Says quantum mechanics and relativity theory and their profound concepts have not only changed our basic understanding of physics from domain of elementary particles to that of the whole universe, but their weird interpretation of space, time, structure of matter, universe, elementary particles, etc. have led to predictions that were unthinkable even a decade ago. The introduction of such concepts as strings, branes, multiverses, parallel worlds, multi-dimensional space, etc. are all consequence of these two physics theories that with many other predictions that are yet to be verified in future. The fact is that some of these ideas and theories are so ahead of our time that, according to estimates, their verification needs centuries of technological advancement. Theory Orch-OR was developed to resolve the issue of measurement in quantum physics and the fact that results of physical measurements may be closely dependent on what we think about their outcome. In an attempt to solve the measurement problem in quantum physics, physicists are frequently faced with the unresolved dilemma of consciousness. Although most physicists try to by-pass the issue, it seems that there is a link between the conscious choice of experiments at the quantum level and the result of the experiment. Although not quite confirmed, recent empirical results at elementary particle level suggest a close connection. Some physicists, most notably Roger Penrose, believe that current physics is not capable of explaining consciousness and that consciousness itself has a link to the strange quantum realm.<sup>[8]</sup> The quantum theory, which is now basic, implies that the particles of physics have certain primitive mind-like qualities which are not possible in terms of Newtonian concepts (though, of course, they do not have consciousness) .<sup>[8]</sup>In the next section we review one of the most theory in consciousness first, and then we refer to content provided by others.

### A summary of the theory

The brain has two main constituents, Glia and neurons. According to Amanda L. Collins There are two main types of neurons, motor and sensory. Motor neurons are located in the central nervous system and are responsible for sending signals from the brain to the muscles

to control movement. Consciousness, in the most widely-accepted meaning of the word, requires some input of sensory information. This information is collected by sensory neurons, which are spread out through the peripheral nervous system. These neurons respond specifically to a certain kind of stimulus, and are unique in that they are able to regenerate when damaged or destroyed. A sensory neuron (Figure 1) has 3 main parts: the dendrites; the soma, or cell body; and the axon [27].



**Figure 1: There are three types of neurons, but the most relevant to the topic of consciousness are sensory neurons, which convey information about the external world to the brain. A sensory neuron consists of three main components – the dendrites, the cell body, and the axon. Reprinted from Lodish H, et al., Molecular Cell Biology, 4th ed., W.H. Freeman, New York, 2000 [27].**

The dendrites are branch-like structures that receive information from other neurons or sensory receptors located in the skin, eyes, etc.. The soma contains the nucleus, and is responsible for maintaining the cell. The axon contains synaptic terminals that send information to other neurons. A synapse is a small gap between the synaptic terminals of one cell and the dendritic spines of another; the synaptic cleft is the space where chemicals called neurotransmitters pass along information. Some cells use electrical conduction, and in this

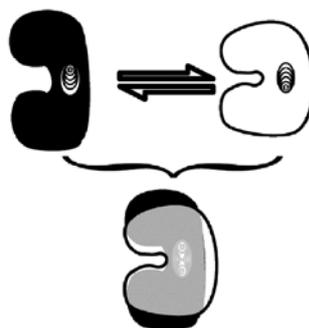
case the space between cells are called the gap junction. Glia cells do not pass along information like neurons, but they have a myriad of other functions. However, recent research has shown that these cells actually synchronize the activity of neighboring axons, allowing the information to be sent in electromagnetic waves. As will be discussed later, these waves can actually represent a superposition of states, which is an essential aspect of Penrose's theory. [27]

Now where in the brain and how can occur OR? In response to these questions Quantum have been propose different types of reactions .In the shape and structure of cells, the cytoskeleton is involved. Cytoskeleton is a complex set of protein fibers located in the cytoplasm. Electron microscopy indicated that in all eukaryotic cells three classes from fibers cytoskeleton There are fine actin filaments (Microfilament actin) with a diameter of 7 nanometers (nm), fine pipes (Microtubule) with a diameter of 24 nm and strings intermediate (intermediate filament) with a diameter of 10 nm. Microtubules in the cytoplasm of all eukaryotic cells, with the exception of human red blood cells, are found in prokaryotes do not exist. Microtubules are integrated around a core. A microtubule organizing center (MTOC (Microtubule Organization Center)) the same length as the name implies organize microtubules. The microtubule organizing center, there centriolar. During mitosis (cell division cell method) centriolar and microtubule organizing centers, poles of the mitotic spindle up. The network of microtubules during mitosis and spindle shaped disappears. Microtubules and intermediate filaments along the axon and dendrites of neurons are drawn from the cell body to the end. Reversible and non-reversible microtubules experimentally shown so that when exposed to low temperature, high pressure or anti-mitotic were disappeared and with increasing temperature, pressure reduction or elimination of anti-mitotic were re-emerge. If this is the stable microtubules in centriolar, flagella and cilia had no effect. But what are made of Microtubules? All microtubules are made of the same protein subunits. If we look at the microtubule cross-section of a sphere with a diameter of about nm5-4 composed of 13 subunits and center it looks empty. Microtubules were built from  $\alpha$ -tubulin and  $\beta$ - tubulin protein subunits of two types, each with a molecular weight of 55 kDa (KDa).  $\alpha$  and  $\beta$  wall tubulin microtubules makeup spiral of repetitions made.  $\alpha$ -tubulin and  $\beta$ -tubulin dimers into microtubules are placed head to tail ( $\beta\alpha \rightarrow \beta\alpha \rightarrow \beta\alpha$ ). So all microtubules are defined polarity: the two ends of the structure are the same. The microtubules are formed structures connecting the head to the tail  $\alpha,\beta$  tubulin about polar. The speed difference microtubule polymerization both ends of the outcome of this polarization. Positive at the end of polymerization rate is two times faster than the negative (polymerization chemical reaction

in which small molecules are linked and simple large molecular weight and molecular basic molecule to create a number of times).  $\alpha$  and  $\beta$  dimmers are related to the polarization of the microtubule network so that any proto-filament,  $\beta$ - and  $\alpha$ - tubulin are placed at a positive end to the negative end. (Proto-filaments of forming a subunit of a microtubule is multidisciplinary.)

In the (Orch-OR) strongly Tiny tubes (microtubules) as a major component of this process is introduced. The petite variety of other bimolecular structures can be involved, such as clathrin, myelin (glial cells), networks and vesicular presynaptic nerve membrane proteins. But why should microtubules was selected? Brain structures for quantum state of dependence, must have the following characteristics:

- High prevalence
- functional significance (for example, adjusting the relationship between neural and synaptic function)
- bipolar structure of the crystal lattice and repeated a large organization
- Ability to view and interaction isolated latest foreign
- Performance at the quantum level events
- empty and the cylinder (Quantum Wave as a possible guide)
- Suitable for information processes

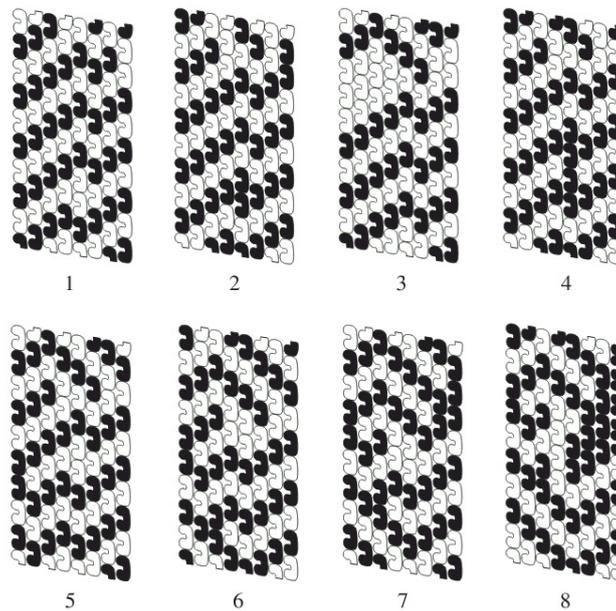


**Figure 2: Above: two modes of tubulin in which a single quantum event (for example, the position of the electron) is paired with a protein composition. Switching between the two modes can occur in nanoseconds for several picoseconds. Bottom: tubulin-dependent quantum state (both on superposition) [8].**

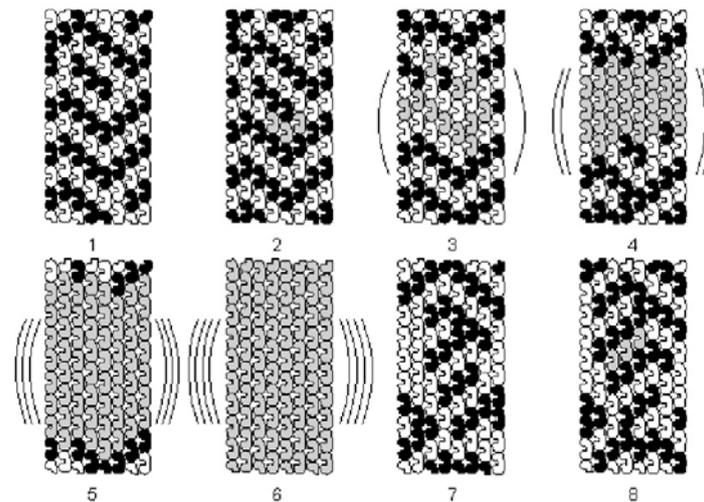


**Figure 3: Schematic view of the central region of neurons. Represents tiny parallel tubes arranged in connection with tiny protein tubes are connected. Tiny tubes in the long axons are looking for. Binding proteins, membrane proteins into tiny tubes [30].**

According to Hameroff the tubulin interaction with tubulin nearby can generate information at the molecular level, and so is released. Just like automat machines cell [8] (Figure 4).



**Figure 4: simulation of Automatic machine tiny tube. Tubulins black and white are in number3. Eight nanoseconds, the step by step from a tiny tube is shown. The pattern are moved and evolved and interacted and then are lead to new pattern [8].**



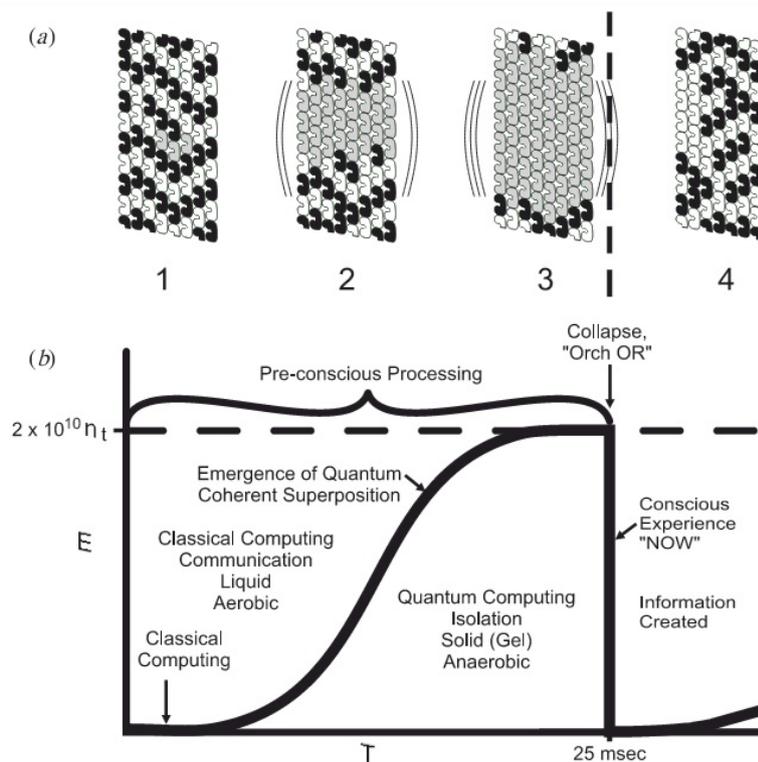
**Figure 5: Microtubule automaton sequence simulation in which classical computing (step 1) leads to emergence of quantum coherent superposition (steps 2{6) in certain (grey) tubulins due to pattern resonance. Step 6 (in coherence with other microtubule tubulins) meets critical threshold related to quantum gravity for self-collapse (Orch OR). Consciousness (Orch OR) occurs in the transition from step 6 to 7. Step 7 represents the eigenstate of mass distribution of the collapse which evolves by classical computing automata to regulate neural function. Quantum coherence begins to re-emerge in step 8 [8].**

Its reduction (OR) process is irreversible in time and it created the event now. Continuation of these events, the forward flow of time and a storm of awareness creates. The dependence of the quantum of tubulin in tiny tubes occurs when the energy of biochemical and heat pump out into the nerve cells. Cells live is also on the water surface of tiny tubes regularly and dynamically coupled with the protein tubulin. The regularity water at the tiny hollow tube, such as act quantum wave guide. This process can be causal in quantum photons that are interdependent. So that it is described a phenomenon super radiation and spontaneous clarity (self induced transparency). Quantum dependence on a tiny tube resonance comes with a classic pattern. The principle of spatial dependence of quantum communication are on a super-position tubulin (gray within and between the tiny tubes) are. MAPs connections would remain isolated system .The binding sites MAPs act as nodes that Coordinate and set the quantum fluctuations and determines the probability of event reduction. New quantum state of dependency is formed at Step 8.

**Physics of Orch-OR theory**

Writers of Orch-OR calculate gravitational self-energy in order to assign a numeric value to this phenomenon. In the case of a pair of split mode on the superposition, each of which has a specific mass, E corresponds to the difference between the two types of gravity mass. The process pre-consciousness (By Cibert 1979) It is estimated  $T = 500$  ms and  $T = h/E$ . [8]

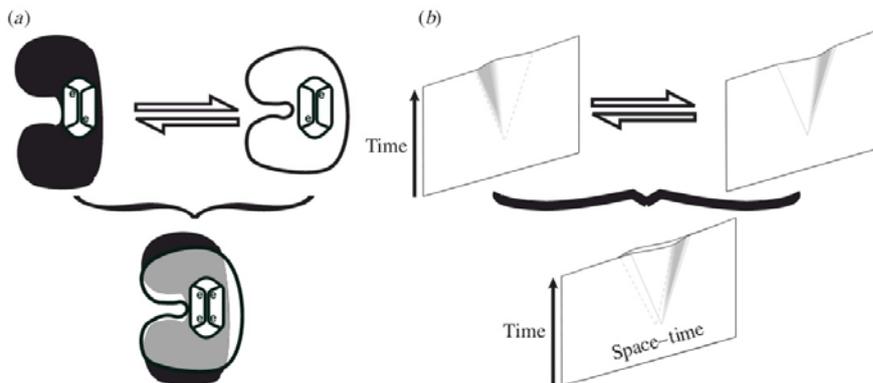
According to the mass of each molecule tubulin and the E-coupling which they were calculated, It is determined that a rate of about  $10^9$  Orch-OR -tubulin participating in the process of.



**Figure6: Schematic diagram of the dependence of quantum to conscious. The relation between the numbers of tubulins is depending to quantum state and dependence time in tiny tube is 500 milliseconds and its time needed to process pre consciousness. The area under the curve, the difference in mass - energy is associated with reduction time The temperature dependence of the geometry of space-time (which is equivalent to the area under the graph) Leading to a reduction in the quantum Classic [37,8].**

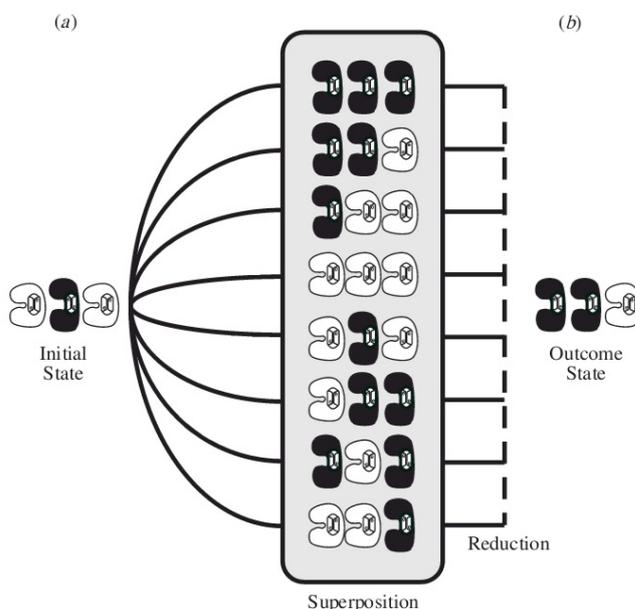
A brain neurons have about  $10^7$  tubulin (Yu , bas 1994) if tubule's ten percent of each neuron depends on the quantum state ,it is reached quantum gravity threshold while remain related  $10^3$  to 500 milliseconds in neurons .Back to back and see a Bengal tiger, are

interdependent 10 to 11 tubulin in 5 milliseconds probably and For example, phone bills forgotten take more time. A single electron may require more time than the life of the world to the brink of OR's isolation.



**Figure [7]: View detachment of space-time in 3- tubulin dependent. In general cases, the distinction space-time is much smaller (about 10 to 4 nm). But the relatively large mass, certainly very small and precise effects such as curvature of space time (for example, hundreds of tubulin assembly, each  $10^{-6}$  to 0.2 nm move)[8].**

In short, our quantum brain is able to interact with the outside world, the geometry of space-time equivalent reproduce its microtubule. Only this time, the "perception" takes place.



**Figure [8]: Schematic of quantum computation of three tubulins which begin (a) in initial classic calstates, then enter isolated quantum superposition in which all possible states coexist. After reduction, one particular classical outcome state is chosen (b).**

In theory, the Orch OR of the Template focus but in practice it may be better to take a deeper look at the positions of philosophical consciousness. In the next section we consider different philosophical interpretation about consciousness.

### **An overview of various philosophical positions consciousness**

All provided are that's what was said in response to a sense of consciousness. The idea that the world is somehow mathematics then follows the consciousness of mathematical patterns can be traced back to The Pythagorean. In the seventeenth century Galileo announced, the world is a great book it is written mathematical language. Recently featured Nobel Prize physicist, Eugene Wigner regards the effect of unreasonable mathematics in the natural sciences and Orch OR has concluded widely that consciousness is a mathematical formulation of quantum computers brain. This means adaption a mathematical algorithm with brain function. The type of quantum consciousness defenders also argue, the perceptual qualities such as sound, taste, smell and dreaming memory are all of them the essential part of the human experience that the lack of a satisfactory explanation by classical physics cannot be ignored. Since the issue of consciousness is an important issue in philosophy of mind in classical mechanics is measurable world, state Real-world measurement to determine and the behavior of the phenomenon, are deterministic. For this reason a group of scientists agreed with the mind-body dualism that it had been raised by Descartes. In modern philosophy has been rejected and now they believe what describe the mind of the observer are the classic mode atoms in his body. But many other philosophers was suspected classical view of material describing that the hypothetical observer Newtonian physics is just only tools description of inner experience. New perceptions in the brain will continue Because the brain is replacing atoms are constantly, and so synchronous The information occurred in the brain, the new atoms copied. In certain circumstances a thought experiment designed, this type of copy will lead to strange results. Daniel Dennett notes at a cash consideration that the observer Newtonian constantly due to new copy is replacing atoms, he don't know way that which copies he is, before branching copies. This is a information bit just only after he different copies becomes evident. He couldn't obtain the information of copies before the branch, even if he has complete information of both copies state obtain.

In 2008, Giulio Tononi, a neuroscientist at the Center for Sleep and Consciousness Scientist University of Wisconsin-Madison raised his "integrated information theory, what is approved, which is now considered one of the most comprehensive and coolest consciousness

definitions about. One of the key claims there's consciousness, must have the power to "cause-reason" is Melanie Boly, neuroscientist living in the Faculty of Medicine and Public Health University of Washington who has worked with Tononi says that everything that exists, it must also have the ability to influence, even small. Boly says: " There is consciousness itself and exist by itself. Thus, should itself be both cause and effect. "She points out that long before introducing his theory of science and knowledge in the form of rigid, the philosopher Plato expressed the idea that for this something to exist should be able to have an effect. Thus, according to Plato, consciousness in word simple is the same "strength." In the dialogues *Sophist* written in the year 360 BC, Plato wrote "My theory is that anything that has a power to influence something or affected by other thing is another thing, Even if for one moment the cause and reason be minor and unimportant, is real existence; and I am of the opinion that the definition of "being" simply the same power." As it is impossible to know the exact cause of the world, we will never be able to prove consciousness. But Boolean believes that the current evidence suggests that integrated information theory is correct and perfect, and scientifically confirms the views of Plato two thousand years ago.

Other theory is computational theory that contemporary physicist Max Tegmark offers that consciousness as a new state of matter. As we have gas, liquid and solid states, consciousness arises when the atoms of the material placed next to each other so that they process information. He is proposed the new state of matter "Perceptronium".[36] Tononi with Christof Koch in 2009 (neurologist) shared in an article entitled "Making Machine may not be conscious?"The basic idea in this regard raised and then went on to complete his theory introduced as a Integrated information theory of consciousness. According to this theory consciousness is the result of the integration of large volumes of information. Resulting in a large volume of data accumulated consciousness will be occur. He shows in his papers a variety of states system and claims if the complexity of a system increase, consciousness will be in higher levels of consciousness. According to this theory controversial even seemingly simple material objects also has some degree of consciousness that the amount of consciousness in proportion to the amount of their complexity. The cause of a more complete consciousness in the human brain than animals is in the complexity human nervous system than animals. Tononi's theory has many supporters and opponents. People such as David Chalmers (philosopher of mind) although it is not officially confirmed, but with a positive tone talk about it. Christopher Koch said in defense of this theory: "Every brain or another complex system has collected data that shows how to coordinate the system. If in This system

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is more and more information it will be better coordination, this means more information will be and thus we can be measure consciousness. Although any information, it has own its sense, but this does not mean that any physical system has consciousness. A black hole, a heap of sand or a splinter group of nerve cells in a dish, this all of them hasn't any information collected coordination and so nothing has consciousness. But the more complex the systems have consciousness and awareness and the amount of consciousness depends on the data collected how to coordinate and communicate and related is of them. "Famous Edward Witten, a physicist who some compare him with Newton and Einstein says may be consciousness forever remain a mystery. In his opinion biologists and physicists might finally be able to better understand brain functions but will remain consciousness forever a mystery. He says it is too easy to assume that we have a good understanding of the Big Bang but you don't understand anything finally about consciousness. Nir Lahav in agreed with him say "The link between brain activity and consciousness still remains a great mystery." According to Witten, the understanding of the processes of thinking, learning, feeling and action finally one day will be fully achieved. However, in a philosophy of consciousness is beyond the scope of human ability. You may be aware of your consciousness, but of why its existence never. In fact, it is possible for us to understand how consciousness works? But why we have consciousness, the answer is out of reach. John Horgan of America Journal believes that: "Genius of Witten does not mean that he is not fallible, and he believes that Horgan is wrong about the lack of understanding consciousness, and his opinion is not true." David Gross, a theoretical physicist at the University of Santa Barbara, hypothesize that perhaps consciousness is similar to what physicists call it "phase transition" The sudden change in the properties of materials on a large scale due to changes in the microscopic structure. Well-known example of this phenomenon is what it is called superconductivity: the conductivity of the material exists when they are cooled below a certain level. Michio Kaku's theory on quantifying consciousness suggests consciousness is the number of feedback loops required to create a model of your position in space with relation to other organisms and time. He believes a thermostat has 1 unit of consciousness - it senses the temperature around it. A flower has around 10 units of consciousness - understands temperature, weather, humidity, gravity, etc.

Level 1 Consciousness: Example - reptiles. Understand position in space. Reptiles of the concept of "tomorrow" are not aware of and live in the present, only to move the location coordinates evolved. The underside of the brain which "reptile brain" have in common, on this level.

Level 2 Consciousness: Example - mammal. Understand relation to other organisms - emotions, social hierarchy. At this level there is no the concept of "tomorrow" and future But social ranks and emotional part of the brain of these animals occupy. The middle part of the human brain called the "mammalian brain" fame, is on two levels

Level 3 Consciousness: Example - humans. Understand relation to time, ability to imagine the future. One can simulate the future and tomorrow in your brain, planning and program design. The frontal (Prefrontal cortex) that the human brain is known, on this level.[39, 40]

## Discussion

As previously mentioned Koch says human consciousness due to a very complex system of information processing. All creatures of this earth a little worm to human, they have consciousness and even perhaps Internet has consciousness, because this solution is the whole cosmos. Koch doctor says "electric charge of an electron does not reveal the specific features and only one electrical charge. His argument is that we live in a world in which space, time, mass, energy and consciousness is the result of complex systems. "In fact, what he proposes an edited version of an ancient philosophical theory is called" pansychism ". In the philosophy pansychism of consciousness or the soul (body, nature) the red picture of each entity in the world and that it leads everything. This philosophical view of consciousness considers itself as the world's consciousness. This philosophy of simple language says everything in the universe has a sense and spirit. Pansychism is one of the most ancient philosophical views, and it can be attributed philosophers such as Thales, Plato, Spinoza, and William James Labynyts. This is view also in Eastern philosophies such as Vedanta, Mahayana Buddhism and Islamic philosophy. During the nineteenth century, the philosophy of "panpsychism" became the default for the philosophy of mind but in the second half of the twentieth century with the advent appearance of logical positivism philosophy this old philosophy declined. But recently this philosophical view once again with the advent of more interest to understand human consciousness has become a main theory. He believes both humans and animals have spirit and then according to Buddhism the global nature of the conscious mind defines. In fact it can be the revealed most satisfying definition of the universe by the same philosophy: three reasons; biology, and computational metaphysics. He clarified to state that my consciousness is an undeniable fact. Facts in the world indirectly and alone can be understood from the window physics but what is certain is

that I have aware and may sometimes be confused about the state and level of my consciousness and my aware. But never doubt about the existence of consciousness. Now we go back to the science of biology, not only humans but also creatures have complex physiology. The only thing is important, as the measure of brain is, and there is no other exception about humans. Only experts can tell by using microscope a small piece of the brain belong to humans, monkeys or mice. All creatures have complex behaviors. For example, bees can detect a person's face. They can realize with the help of short-term symptoms be stored in memory and communicate with each other on the quality and location of food sources through dance and movement winding. If you enter smell or fragrance strangers to, they would have come again to their hives by using pathways as they could have in the past come back to the hive. Having the ability it proves that they have socialized and social memory. But what would be the simplest explanation for this? Consciousness should be awarded a source to all creatures. It is here that we see the logic and experiment alone cannot determine the formulation and interpretation of physical phenomena of consciousness.[39, 40] To interpret the phenomenon of consciousness, as mentioned above can be different ontological states are not compatible with each other.

So far we have seen that the foundation of Orch OR theory is Gödel's theory. This implies that non-computational factors that cannot be proven. In other words, part of the consciousness is non-computational. Not only, have the classical concepts even that quantum concepts cannot be explained and we agreed with them. In response to this problem should be pointed out that we cannot have any calculation for consciousness only and only just now. We are not surrounded on all components that make the world of computational rules or in other words we do not know the world is based on a framework built. So I think just now consciousness is non-computing. But in explaining the structure and process of phased implementation of such a model should be applauded. Because, in the papers since the beginning until today presented, its proposal, Step by step with a detailed explanation of how the biology of how physically to solve the mystery of consciousness and there is not still no reason to reject the theory that it was proved wrong. What was presented in the previous section we showed that ontological offered generally can be separated into two groups. The first group has only to provide adequate mathematical models and computing have established for that, and believe that everything comes from within the brain and with the development of mathematical descriptions of objects and relations between them gradually evolves over time, but this development has created a wider and more general questions and answers to mathematical language that labels only once and without means. In response to

the first group has been said we agree with the following pattern consciousness of mathematical models, but we are against only the label content no mathematical interpretation and they do not have intrinsic meaning. A simple example will help to get out of the obscurity of the case as we assume that the world is similar a large cube that consists of millions of small cubes and we have been from the beginning creation in the one of the small cubes and we're looking for cubes around, down and above us. Each small cube has a specific mathematical pattern so all the small cubes has a unique mathematical model of their own. If all the cubes are put together like pieces of a puzzle raising and integration of mathematical models can make the puzzle's outline. In other words cube becomes apparent mathematical pattern. With the advancement of mathematics and physics, will be obvious more cubes from left, right, down and up for us. In fact the cube largest is the same self-awareness or consciousness that it is the soul of the universe and The whole universe consists of total Mathematics and Physics capitulation ruling smaller cubes that governed universe, which resulted in the consciousness of the universe. In other words, what led to parts of the world is the large cube and intended to govern the laws of physics and math. Therefore pansychism view about the spirit of the world and our example, the world's largest cubic, both are the same. So both groups think the same pansychism theorists and fans know that the world is merely a mathematical model. The first wants in the total to go except, and the latter wants of except to reach total. And if there is a missing link of the reason whose we are not surrounded by all components the large cube or the same whole universe.

In other words the latter have attached to consciousness part of that equation has a physical interpretation is governed and part of the outside of the brain that controlled. Thinking like this can give meaning to the conversion process reality into self-awareness or self-consciousness and vice versa. This is what Deepak Chopra notes in his article that the mind creates reality or the reality creates the mind[38]. It can be provided an appropriate response for these two processes. Mach Zehnder device and the double-slit experiment suggests that consciousness creates reality.[27] Using the above example, the cube world and mathematical models, can be said that both processes can be done and there is no transposition carrying out processes and both processes can be done well. If you believed to one of these two processes, you think digitally and seeing things as zero and one. The process conversion of consciousness to reality and reality to consciousness is the nature of the brain. let's look at entangled state. When are separated the particle 1 to particle 2 the measurement of particle 2 defines on the particle 1. Any change in the particle 1 is changed with the bit 2 and vice versa. So we can both convert. The question that arises here is why when reduction happen

Superposition become a global mode but in the opposite direction the state of the universe is not converted to the superposition of states. Because of it is due to space and times the states away from each other. [23] So after each change in consciousness happen on the reality of change and any change in the consciousness equal is reality of change. Another point to mention is necessary this is the mind set of dualism about contradictions and consciousness can be achieved depending on the number of events in the brain. So it is better that consciousness is divided into two parts, Creative Consciousness and Passive Consciousness. Creator consciousness is what creates your reality. According to Vedanta mind creates matter and energy [38] and passive consciousness is waiting to receive of the reality of the world.

### **Conclusion**

In fact Creator consciousness the same is that we know which consciousness universe or the soul of the universe (the large cube) and passive consciousness is the same smaller cubes. The numbers of the cubes smaller are more; we are closer to consciousness of universe or soul of the universe. This suggests as a whole exist the creator consciousness and in the components exist the passive consciousness. Passive consciousness is part of the consciousness creator. The human brain can also be considered as a whole outside world acts. When all the integrated information exist, Tononi refers to it in his papers, consciousness is creator but If the integrated information don't exist, and some of it is not known mathematical models, the puzzle pieces become incomplete of then consciousness is passive.

## References

- [1] V. Salari , M. Rahnama† and J. A. Tuszynski. (2009).On the Theoretical Possibility of Quantum Visual Information Transfer to the Human Brain
- [2]S. Hagan a, S. R. Hameroff b,d, J. A. Tuszyński c,d.(2000).Quantum Computation in Brain Microtubules? Decoherence and Biological Feasibility.arXiv:quant-ph/0005025v1
- [4]Takashi Hiramatsu1, Tetsuo Matsui1, and Kazuhiko Sakakibara2.(2008).Self-Reduction Rate of a Microtubule.arXiv:quant-ph/0602144v2
- [5]D.V. NANOPOULOS(1993).Theory of Brain Function, Quantum Mechanics and Superstrings.arXiv:hep-ph/9505374v1
- [6] Subrata Ghosh a , Satyajit Sahu b , Anirban Bandyopadhyay. (2014). Evidence of massive global synchronization and the consciousness Comment on “Consciousness in the universe: A review of the ‘Orch OR’ theory” by Hameroff and Penrose. *Physics of Life Reviews* 11 (2014) 83–84
- [7] Chanelle C. Jumper, Gregory D. Scholes(2014). Life—Warm, wet and noisy? Comment on “Consciousness in the universe: A review of the ‘Orch OR’ theory” by Hameroff and Penrose. *Physics of Life Reviews* 11 (2014) 85–86
- [8] Stuart Hameroff (2016). Quantum computation in brain microtubules?The Penrose & Hameroff ‘Orch OR’ model of consciousness. *The Royal Society*
- [9] Bohm, David (2002). *Wholeness and the Implicate Order*. (Online-Ausg. ed.). Hoboken: Routledge. ISBN 0203995155.
- [10] Piaget, Jean (1997). *Jean Piaget: selected works. (The Origin of Intelligence in the Child) (Repr. ed.)*. London: Routledge. ISBN 9780415168861.
- [11] Wade, Jenny (1996). *Changes of Mind: A Holonomic Theory of the Evolution of Consciousness*. Albany: State Univ. of New York Press. ISBN 9780791428498.
- [12] Mark M. Wilde (2016). From Classical to Quantum Shannon theory. arXiv:1106.1445v7 [quant-ph] arXiv:1106.1445v7 [quant-ph]
- [13] Stuart Hameroff & Roger Penrose.(2014) . Reply to criticism of the ‘Orch OR qubit’ – ‘Orchestrated objective reduction’ is scientifically justified. *ScienceDirect .Physics of Life Reviews* 11.104–112
- [14] Jack A. Tuszynski.(2014).The need for a physical basis of cognitive process Comment on “Consciousness in the universe. A review of the ‘Orch OR’ theory” by Hameroff and Penrose. *Physics of Life Reviews* 11 (2014) 79–80
- [15] Gödel, Kurt (1992). *On Formally Undecidable Propositions of Principia Mathematica and Related Systems (Reprint. ed.)*. New York: Dover Publications. ISBN 0486669807.
- [16] Charles Tandy.(2014). Are you (almost) a zombie? Conscious thoughts about “Consciousness in the universe” by Hameroff and Penrose. *Physics of Life Reviews* 11 (2014) 89–90

[17] Penrose, Roger (1999). *The Emperor's New Mind: Concerning Computers, Minds, and the Laws of Physics* ([New edition] ed.). Oxford: Oxford Univ. Press. ISBN 0192861980

[18] Deepak Chopra, MD.(2014). Reality and consciousness: A view from the East Comment on “Consciousness in the universe: A review of the ‘Orch OR’ theory” by Stuart Hameroff and Roger Penrose. *Physics of Life Reviews* 11 (2014) 81–82

[19] Hameroff, Stuart (2008). "That's life! The geometry of  $\pi$  electron resonance clouds". In Abbott, D; Davies, P; Pati, A. *Quantum aspects of life*. World Scientific. pp. 403–434. Retrieved Jan 21, 2010.

[20] Jeffrey R. Reimers a , Laura K. McKemmish b , Ross H. McKenzie c , Alan E. Mark d , Noel S. Hush(2014). The revised Penrose–Hameroff orchestrated objective-reduction proposal for human consciousness is not scientifically justified Comment on “Consciousness in the universe: A review of the ‘Orch OR’ theory” by Hameroff and Penrose. *Physics of Life Reviews* 11 (2014) 101–103

[21] Reimers, Jeffrey R.; McKemmish, Laura K.; McKenzie, Ross H.; Mark, Alan E.; Hush, Noel S. (17 March 2009). "Weak, strong, and coherent regimes of Fröhlich condensation and their applications to terahertz medicine and quantum consciousness". *PNAS*. **106** (11): 4219–4224.

[22] John Lucas(2014). The face of freedom Comment on “Consciousness in the universe. A review of the ‘Orch OR’ theory” by Stuart Hameroff and Roger Penrose. *Physics of Life Reviews* 11 (2014) 87–88

[23] Stuart Hameroff MD, Roger Penrose FRS (2014). Reply to seven commentaries on “Consciousness in the universe: Review of the ‘Orch OR’ theory”. *Physics of Life Reviews* 11 (2014) 94–100

[24] Stuart Hameroff, Roger Penrose (2014). Reply to criticism of the ‘Orch OR qubit’ – ‘Orchestrated objective reduction’ is scientifically justified. *Physics of Life Reviews* 11 (2014) 104–112

[27] Amanda L. Collins (2015) *Orchestrated Objective Reduction: Quantum Physics and its Implications in Human Consciousness*

[28] Robert W. Boyer and Park Hensley(2015) A Further Review of ‘Orch OR’ Theory:The Universe in Consciousness *Neuro Quantology* Volume 13 | Issue 2 | Page 218-231

[29] G\_abor Vattay<sup>1</sup>, Dennis Salahub<sup>2</sup>, Istv\_an Csabai<sup>1</sup>, Ali Nassimi<sup>2;3</sup> &Stuart A.Kaufmann(2015) Quantum Criticality at the Origin of Life . arXiv:1502.06880v2 [cond-mat.dis-nn]

[30] Stuart Hameroff , Roger Penrose .(1996). Orchestrated reduction quantum coherence in brain microtubules: A model for consciousness. *Mathematics and Computers in Simulation* 40 (1996) 453-480

[31] Stuart Hameroff.(2014) .Consciousness,Microtubules,& ‘Orch OR’.A ‘Space-time Odyssey. *Journal of Consciousness Studies*, 21, No. 3–4, 2014, pp. 126–53

- [32] G. Tononi.(2012). Integrated information theory of consciousness:an updated account. Archives Italiennes de Biologie, 150: 290-326,
- [33] Lycan (2000), "representational theories of consciousness," Stanford Encyclopedia of Philosophy
- [34] Stuart Hameroff.(2007). Orchestrated Reduction of Quantum Coherence in Brain Microtubules A Model for Consciousness. NeuroQuantology , March 2007 ,Vol 5 , Issue 1 , Page 1-8,
- [35] Stuart R. Hameroff,\* and Roger Penrose†. (2016). Consciousness In The Universe An Updated Review Of The “ORCH OR” Theory. b2237 Biophysics of Consciousness: A Foundational Approach
- [36] Max Tegmark.(2007). Shut up and calculate. arXiv:0709.4024v1 [physics.pop-ph]
- [37] Ivan Kukuljan Supervisor: Prof. Dr. Rudolf Podgornik(2013), Microtubules: from classical properties to quantum effects in human cognition,
- [38] Deepak Chopra.(2014). Reality and consciousness: A view from the East Comment on “Consciousness in the universe: A review of the ‘Orch OR’ theory” by Stuart Hameroff and Roger Penrose. Physics of Life Reviews 11 (2014) 81–82
- [39] <http://www.wired.co.uk/article/christof-koch-panpsychism-consciousness/> A neuroscientist's radical theory of how networks become conscious
- [40] <https://cosmosmagazine.com/social-sciences/mind-michio-kaku>