**On the nature of consciousness**

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## Abstract

The material world is determined and its boundaries are established on the basis of fundamental physical laws. It turns out that the non-material world is not empty. In this world the substance has been discovered that looks like a consciousness. Consciousness has the ability to interact with matter and determine the state of matter within the limits determined by the Heisenberg uncertainty relations. It is shown that elementary particles have something that can be called as elementary consciousness. More complicated consciousnesses determine the behavior of animals and humans, in particular. To explain the diversity of consciousnesses in terms of the level of development, the hypothesis of the fusion of consciousnesses is proposed. The hypothesis leads to an explanation of the possible existence of that is commonly called God. Within the framework of the hypothesis, explanations of testimonies of clinical death survivors are given. Possible goals of the existence of man and God are determined.

Keywords: matter, consciousness, Heisenberg's law, God, Universe, randomness

We used to consider the world around us that we perceive with our senses as an objective reality. We operate with what we see and hear and feel and touch and smell as immutable facts. And we perceive these facts as something that does not depend on us, as objective ones. And we've come to believe in this immutability so much that matter, i.e. the external that we observe, we try to define precisely through the given in sensations [Lenin, 1908].

Sometimes we have doubts. We can see not what is but mirages or visions or something else. Or we can hear incomprehensible sounds which highly likely did not exist in reality. Some go even further and calls in question the work of our very sensory system. For example in the famous film "The Matrix" (1999) everything that people feel is just signals that are artificially given to them directly into the brain. These signals completely replace the entire human signaling system, including receptors and the nervous system. Someone will say that this is just a fantasy and this does not happen in real life and cannot be. But why not? There are already hearing aids that can replace functionally invalid hearing receptors. It is theoretically possible to replace the visual receptors. At that it is not necessary to copy the receptors themselves. It is enough to copy the signals that are sent from receptors to the nervous system and you will no longer be able to distinguish whether you see what is really there or what replacement signals are shown to you. The nervous system is also theoretically possible to replace. In fact, these are just wires for transmitting signals to the brain. So why can't one send analogous signals directly to those parts of the brain where signals from receptors are processed? Theoretically these signal-processing regions of the brain could be replaced as well. After all, these are just some material objects, they consist of cells and molecules and atoms. This means that they can be reproduced and processed signal can be transmitted to some center in the brain which receives it and makes decisions on it. By the way, the existence of such a center has not yet been proven. There is no evidence that it is located in a specific place in the brain and includes this and that. By and large, there is not even evidence that this center is located in the brain. This is just a proposal. Everyone knows that she makes all decisions herself, and that she makes them with help of her brain ... it seems. The only thing that is reliable for everyone is that “I am” and that “I somehow react to external influences”. Although the exact mechanism of how exactly this reaction occurs, how exactly the human receives the signals and how exactly initiates the reaction is unknown.

Another thing, which also seems absolutely reliable, is that there is something outside of me and it somehow affects me. Solipsism, however, stops at the first statement that "I am." But everyone can check for herself that things constantly happen to us that do not depend on our desire. And we evaluate many of them as negative and undesirable. If everything depended only on my “I”, then “I” at least would protect myself from unwanted influences. And since I cannot do this, I have to admit that there is something outside of me. Against the argument that such influences can be the result of a "dark", unknown (unconscious) side of my “I” one can argue that this is the case when “I” have some independent parts. These parts can affect the “I” so that “I” cannot control them. But if one part of “I” cannot control another part of “I” then these parts are different entities, each of which is external to another.

It begs to accept as an equally reliable thing that “I” can influence on what is outside. But this is already a conclusion which moreover may be not correct. Of course we can react but we can only judge that our reaction somehow influenced the outside by the response signals coming from the outside. But quite often it happens that we consider events outside as a result of our actions, while they occur for a completely different reason. For example, when shooting a balloon by a rifle we see how it burst. But in fact, we missed and it burst running into a sharp branch.

So, one can accept two indisputable grounds, that "I am" and "there is something outside of me, and it affects me." Everything else is models or ideas or explanations for these external influences. The theory is that there is a human body that has arms, legs, head and other organs. That there are receptors that are influenced from the external, and the nervous system transmits signals to the brain where we somehow process and respond to these signals. All our other ideas about the external world, about its structure, about the forces acting in it, etc., are also models or theories. And the purpose of these theories is to explain the influences coming to us from the outside, to clarify their nature. As long as the theories explain these influences satisfactorily we stick to those theories. If theories are no longer fit for purpose they are discarded in favor of more satisfactory theories.

Taking in account said above let's look at existing and recognized theories in physics regarding the so-called random processes. Some have the idea that everything in the world is predetermined and deterministic. And if we cannot calculate something it is only because of a lack of some knowledge. The most famous in this regard is the position of Albert Einstein when in a discussion with Bohr he said that God does not play dice [Bohr 1949]. To answer the question whether randomness is something fundamental or any randomness hides an unknown law Bell in his work proposed the possibility of experimentally testing the inequalities named after him[Bell 1964]. If some characteristic lies within certain limits then randomness is fundamental, otherwise a hidden pattern takes place. Alain Aspect [2015] checked Bell's inequalities in experiments with particles in entangled state and proved experimentally the fundamental nature of randomness. Subsequently, more experiments were carried out which showed experimental values close to those obtained by Aspect [e.g. Zeilinger 1999, Ruzbehani 2021].

So there are two theories - deterministic and quantum one. Until there was experimental verification one could rely with equal degree of ignorance on any of them. But the experiments carried out knock the ground out of determinism. It doesn’t pass the test of practice. It does not explain well the signals coming to us from the outside, and according to the logic outlined above, such a theory should be abandoned.

But there are other reasons for considering determinism to be a flawed theory. Heisenberg [1927] derived inequalities named after him. These formulas connect four main physical parameters that necessary and sufficiently characterize the state of a physical body - energy (E), momentum (p), coordinates (x), time (t). The inequalities establish that the products of changes in energy and time, as well as momentum and coordinates, cannot be less than Planck's constant: ∆E ∙ ∆t≳ℏ/2, ∆p ∙ ∆x≳ℏ/2. This is also physical law like gravitational or electromagnetic or any other nature law known in physics. It has been repeatedly tested and confirmed by practice in experiments with elementary particles. The most famous and apparently the only interpretation of this law is that it is impossible to measure the energy of a particle at a certain time with accuracy better than that allowed by the uncertainty relations. The same goes for measurements of momentum and particle coordinates. This interpretation is, in fact, a direct consequence of Heisenberg's law. But physical laws, as a rule, allow not one but a number of consequences. In any textbook on electromagnetism you will find dozens of very different consequences from one Maxwell's law. At that they are all true. The existence of one consequence does not disprove the existence of another consequence. So with Heisenberg's law, I’ll try to deduce one more consequence. I argue that a consequence of this law is the fundamental impossibility of the existence of any law that would determine the physical state of material objects below the limits established by the Heisenberg relations. As it was mentioned above, the state of a physical object is necessary and sufficiently determined by its energy and momentum and position at a certain moment in time. And if there was such a law that would unambiguously connect all these characteristics then at any moment the state of the body would be determined by the action of this law. But the uncertainty relations prohibit such a relationship between the indicated characteristics, and hence prohibit the existence of such a law within the limits indicated by the uncertainty relations. That is Heisenberg's law, as well as experiments on checking Bell's inequalities, establishes the fundamental nature of irregular (random) processes within the limits specified by this law.

Another consequence of the Heisenberg uncertainty relations can be the establishment of the boundaries of the material world. Returning to the above-mentioned definition of Lenin that matter is what is given to us in sensations, it should be noted that matter in this case is clearly defined by one attribute - is it felt or not. Existing theories, repeatedly tested in practice, tell us that we can only feel physical interactions. And all known and even unknown physical interactions obey physical laws and Heisenberg's law in particular. And the latter asserts that there are no physical laws linking cause with consequence below the limits determined by this law. This means that within these limits we can feel neither with our receptors nor with help of instruments nor with help of any tricks. There is therefore no matter there. There is not material world.

Nevertheless, processes outside these limits take place, and they do occur regularly. All particles of micro world are involved in these processes. This is the birth and decay of particles or absorption and emission of radiation quanta by particles and atoms with a transition to other energy levels, and much more. We used to believe and there are many experimental confirmations that each consequence has its own cause. We use this postulate and so far have not received any reason to doubt it. In the macrocosm, we could associate a cause with every consequence. And this reason was this or that physical law. Apparently this served as a weighty foundation for determinism. But in the microcosm, as it turns out, there are many events that cannot be matched as a cause by any physical law. This is prohibited by Heisenberg's law. Nevertheless, the postulate of causality does not negate this. And if to use it, it is necessary to match the consequence to its cause. Consider for example the decay of a free neutron. Due to the small mass defect during its decay, i.e. insignificant difference in the mass of the neutron and the masses of the decay products, the decay time of the neutron in accordance with the uncertainty relations is estimated at 17 minutes. But this is an average time. Any single neutron can decay in a second or in an hour or even in a year. There is not and cannot be a law that would determine this time. But what is the reason that decides when the neutron decays? Since no material reason can be compared to this process, it remains to assume that the neutron itself decides when it should decay. I.e. a particle has something that can decide to change the physical state of the particle. A kind of inner “I” of a particle. This “I” does not interact with other particles by means of physical interactions except through the particle itself. We cannot in any way feel this “I” of a particle. That is why it does not belong to the material world. We can only calculate logically that it does exist from those consequences that we observe.

In addition to single-particle quantum phenomena, there are quantum many-particle ensembles with the corresponding behavior also subject to Heisenberg's law. The typical phenomenon in which ensembles of particles are involved in quantum effects as a whole is superconductivity, for example. If to take a superconducting ring and induce a current in it by external magnetic field, then the current will change in the ring in quanta rather than continuously. This is due to the fact that the magnetic flux can only change in quanta. And the current in the ring is directly proportional to the magnetic flux. The magnitude of the magnetic flux quantum is very small but finite. In the SI system of units it is approximately Wb. Current is the movement of a set of charged particles, in this case electrons. In the phenomena of superconductivity ensembles of electrons are involved behaving as a whole. In this case, it is already a certain “I” of the whole ensemble of particles that decides exactly when to change the state of the ensemble on a quantum of magnetic flux.

So one can see that individual particles have something that makes decisions about the behavior of particles within certain limits. Also, some ensembles of particles have something that makes decisions about the behavior of these ensembles. However from which side to look. One can also consider that there are some ones that have at its disposal individual particles or ensembles of particles. And these ones can, within certain limits, determine the states of these particles or ensembles, they can command them.

Finally, a third case is also possible when absolutely all particles in the Universe are commanded by something (or someone) within certain limits. At least until otherwise is proven, this possibility must be borne in mind. This possibility may be evidenced by the diversity in the number of particles of possible ensembles involved in quantum processes. If there can be a hundred and a thousand and a billion, etc., why cannot there be many times more? And if there are so many, why can't there be several orders of magnitude more? By induction we come to the maximum possible limit, to the number of all particles in the Universe.

Let’s consider the second case more detail in comparison with the behavior of living beings, humans in particular. Living beings often have to make decisions that look random to an outside observer. In this case, a certain “I” of the being is responsible for the decisions. Again, at least with regard to people, everyone can judge that there are decisions that she makes herself and no one and nothing else.

There is, however, a deterministic point of view that the behavior of a living creature, a human in particular, is determined by the programs of behavior existing in the body, and any seeming randomness only conceals regularities. So Sigmund Freud [Freud 1923] considers human behavior as conditioned by the stimuli emanating from the subconscious "id" (Das es), and the restrictive prohibitions of the "super ego" (Das Über-Ich). Instincts and conditioned and unconditioned reflexes, being the programs of behavior and reactions to certain influences, really cover a significant part of the behavior of a living being. But it is not hard to show that they cannot be responsible for every behavior.

It is known that there are more than one hundred million receptors in the human body. Just only in the eye there are about 130 million so-called rods and about 7 million cones. The signal entering the brain can be formed both from one receptor and from any combination of signals from different receptors. I.e. a signal from one receptor of the eye is one signal. A signal from several receptors of the eye and from several receptors of the ear is a completely different signal. A signal from some combination of receptors of the eye, ear, nose is the third signal, etc. The number of possible combinations of such signals is determined by the rules of combinatorics. If each receptor produced only a binary signal like 0 and 1, then the number of possible signals would be about 2100 000 000. In fact, the signals from the receptors are logical ones that implies much greater variability and, therefore, the number of possible signals can be several orders of magnitude greater. Nevertheless, the above numver is sufficient for our assessment. Chinese researchers [Yingxu Wang et al 2003] argue that the memory capacity of the human brain is on the order of 108 432 bits. Comparing these numbers, it is not difficult to see that even if we assume that there is 1 bit for each program, even if we assume that all receptors emit binary signals, human memory can "provide" with programs insignificant part of possible external signals. This means that to process the bulk of incoming external influences a person does not have to rely entirely on automatic reactions but often she is necessary to turn on her brain. However, everyone can judge from her own experience how often she relies on instinctive and reflex reactions, and how often she uses the thought process to make decisions about some of her actions.

According to the estimation above a person has hardly a few seconds in a day to behave according to the existing programs. However, instinctive and reflex behavior takes significantly longer. Apparently, it can be assumed that living beings deliberately drive themselves into a situation where they can act according to already debugged programs. Living in a constant state of decision making is stressful. And so we get up at the same time on the alarm clock, we do the same hygienic procedures, we have breakfast in the same place and approximately the same menu, we go to the same job for the same road, we often carry out the same familiar work duties, we have the same leisure time after work, etc. And such monotony can be even excessive. The desire can appear to somehow diversify life with something new. And the golden mean assumes both behavior within the framework of existing programs and the search for something new involving the creation of new programs of behavior.

But what does it mean to create a new program? What is a program in general? Many are accustomed to the phrase "computer program" or the profession of "programmer". But programs are all around us. There were programs in everyday life even when there were no computers at all. Any mechanism is a program that works on the principle that if some physical influence is applied to the input of the program the quite definite signal is generated at the output of the program, and this signal also is a force action. For example, by pressing the switch (input signal) we get the shining bulb at the output. By pulling the trigger on the gun, we get a bullet that takes off at the exit, etc. A program is always a certain set of physical objects connected together by physical interactions, usually electromagnetic. Even a program in a computer is also a set of electronic components interconnected in a circuit. And the electronic components themselves are metal, dielectric and semiconductor elements connected each other in a special way. And in exactly the same way, some definite influence on the input elements of such a program leads to a quite definite physical signal at the output of the program. E.g. by pressing certain keys on the keyboard we get quite certain visual symbols on the screen.

So let’s define a **program** as *a set “A” of material objects such that material objects in “A” are connected each other by means of physical interactions in such a way that* *any [physical] influence “i" from a set “I” of possible [physical] influences to a subset “B” from “A” causes simple answer (movement) of a subset “C” from “A”.*

For a program to appear, it is required to take quite definite material objects and establish definite physical connections between them. In the brain such objects can be neurons and they are connected by synapses. Neurons and synapses also consist of material objects (molecules and atoms) interconnected by physical connections. And they also behave like programs, i.e. give quite definite responses to quite definite influences. The exact mechanism for creating a new program of behavior in the brain is not known. Does this require the emergence of new neurons and new synapses, or are only new neurons needed, or only new synapses? Or maybe the creation of a new program is going on at the level of smaller structures than neurons and synapses?

But we don't need to answer such specific questions. If a program for responding to an external signal exists then the path of this signal to the response to it in the form of movements by body parts can be represented as a sequential chain of various programs. First, these are receptors that receive an external signal and form a signal at the output that is "understandable" to the next program - the nervous system. The nervous system processes this signal and brings it to some receiving parts of the brain. At some stage, let's call it “sorter”, the signal is recognized as the “area of ​​responsibility” of a certain executive program and enters this program, which, according to the set algorithm, generates a control signal going along the chain of executive programs, the final addressee of which is a certain set of muscles.

We are interested in the case when the response program does not exist. In this case, the chain of programs must be interrupted. It is not interrupted only if the response program exists. The gap should be between the sorter and the very first program from which the control pulse comes. In this case the signal at the input of this first program cannot be an output signal from the sorter since this first program would have been a response program, but it does not exist by condition above.

I.e. in the absence of a response program the sorter sends a signal somewhere, and the addressee cannot be a material object. Otherwise, it would be just one more link in the chain of programs. So the addressee must be intangible. The addressee must make a decision regarding an unfamiliar signal and issue a control signal to some initial program in the chain of executive programs. If in the case of elementary particles and quantum ensembles of particles one could only guess what can make decisions about the behavior of particles within the Heisenberg relations, then in the case of human it is reasonably to suggest that the decision maker is the human consciousness, and the interaction of consciousness with matter, with material programs the sorter and the first program in the control chain occur within the Heisenberg relations, i.e. on the border of the material world. Since the laws of the material world have been proven many times and in various experiments, consciousness can hardly violate them. But within the Heisenberg relations, it is possible to take a little energy for a while, or to take a little momentum in one place, in order to return it at another time or in another place. Apparently, consciousness uses precisely these possibilities. Then the signal from the sorter, characterized by both energy and impulse, can be occupied by consciousness in order to return after a certain period of time and in another place, namely, to the input of the initial executive program. Between the output signal from the sorter and the input signal to the executive program, consciousness decides what to do with it and when and to which program(s) to transmit the reaction signal.

The above reasoning is suitable not only for humans but for any creature that at least once in its life has a problem of reaction to an unfamiliar influence. And if in the case of a human the decision-making entity can be assigned to human consciousness, then it remains to assume that other creatures have something similar to the consciousness, at least qualitatively. At that there is have a huge variety of living things from viruses to humans with different levels of complexity of the organism and the level of development, and for highly organized organisms we can also talk about the level of intelligence. And each of them has its own “I”, which makes decisions regarding the activity of their organism within certain limits. But a significant difference between consciousnesses can be identified. This is the amount of substance or matter which can be influenced by the "I" of these organisms. And the talking is not about the mass of the whole organism, although indirectly it certainly testifies to the capabilities of the "I". The talking is about those material objects in the programs of sorters and the initial chain of the executive programs with which "I" communicates directly. In the case of a single particle it is the particle itself. In the case of an ensemble of particles, the amount of this ensemble can vary widely. Consciousnesses of highly organized beings, apparently, can control quite numerous ensembles of particles. But if some “I” can control very few sets of particles, while others control billions and more, then where did such a variety of these “I” come from? Why such an almost continuous hierarchy from individual particles to the human body, in which consciousness can control the behavior of a significant number of particles?

To explain this diversity the hypothesis is offered that consciousness can evolve from the simplest inherent to elementary particles along to human ones. And as a mechanism of evolution the fusion of more elementary consciousnesses into more complex ones is offered. According to this hypothesis our human consciousness is the product of billions of previous fusions starting from elementary particles. I.e. the history of each consciousness originates almost from the beginning of the Universe. And further, there is no reason why this evolution should end on humans. The limit rather is seen in the third case mentioned above when there is a creature capable of controlling all particles in the Universe.

Но любая теория и гипотеза, в частности, хороша своим объяснением наблюдаемых явлений их предсказанием. Рассмотрим, поэтому, что же может объяснить и предсказать данная гипотеза.

But any theory and hypothesis, in particular, is good for its explanation of the observed phenomena and by their prediction. Let’s consider therefore what this hypothesis can explain and predict.

As long as there is a process of fusion, there may be cases of regression or splitting also. There is a lot of evidence in history of a split personality. According to modern research [Chu, J. A. et al 2011], DID (Dissociative Identity Disorder) and dissociative disorders are not rare conditions. In studies of the general population, a prevalence rate of DID of 1% to 3% of the population has been described. I.e. the process opposite to the fusion of consciousnesses is quite common and the above estimation may indicate that the fusion process is not something predetermined and uncontested, which allows us to make assumptions about its mechanisms.

Is it possible to observe the process of fusion in our life? Hardly. Practice shows that consciousness is rather rigidly attached to its carrier, its body. Perhaps in a dream this connection weakens but these are only guesses and speculations. Accordingly if two consciousnesses fuse, with each being attached to its carrier, then the united consciousness will lose at least one carrier and most likely both. I.e. this would mean biological death of both organisms. By the way, in folk tales there is such a happy ending: "They lived a long time and died in the same day. For example, Alexander Green's story "One Hundred Versts Along the River"[[1]](#footnote-1) ends with these words. But there are similar examples in real life. The Presidential Library in Russia presents the book “The Ideal of Love and Fidelity - Saints Peter and Fevronia. From the history of the Russian Orthodox Church "(2017, in Russian), which tells about the holy married couple of the Murom prince Peter (to reign 1203-1228) and his wife Fevronia, who died on the same day. In England, a loving couple Vera and Wilf Russell[[2]](#footnote-2) died within four minutes of each other. An Australian couple Norma June Platell and Francis Ernest Platell[[3]](#footnote-3) died within few minutes. Perhaps these are the cases of the consciousness fusions, the result of which is the physical death of both. It is noteworthy that in all such cases both in fairy tales and in real cases the talking is about loving couples.

It is is not known exactly what love is. Psychologists try to decompose love into its components [Sternberg 2007] which, however, does not clarify what love is. Within the framework of the proposed hypothesis love can be defined as a prelude to the fusion of consciousnesses. Judging by the fact that this process is quite long relative to human life in the process of this prelude certain conditions must be met. I.e. two consciousnesses must somehow adjust to each other for the fusion to be possible. Often speaking of love it is emphasized the dedication of a person in love, the willingness to sacrifice everything for the sake of a loved one. This is very easy to understand if a person considers the object of her love as a part of herself. I.e. she loves not a stranger, someone else's being but a part of herself. And if both relate to each other in the same way then they are already close to becoming a single whole, to the fusion of consciousnesses. This idea is far from new. In the Bible, “love your neighbor as yourself” is presented as the second major commandment from Christ (Gospel of Matthew 22: 37-40, Mark 12: 29-31). But it is very difficult for an ordinary person, brought up on reverence for property, on the division into one's own and another's, on the denial of someone else's, it is very difficult to understand and accept love for one's neighbor, not to mention the distant one. This love becomes understandable if you see in the other not someone else's, but a part of yourself, even if in the future.

One might argue that this is about the closest person, with whose consciousness, if you're lucky, your consciousness can fuse after death. Why to love others? But your consciousness has already undergone many fusions in order to reach the level at which it is now. And there is no end in sight to this process other than the fusion of all consciousnesses. But then those who are not yet the closest now will be so in the future. They are part of you just in the future. And if so, the sooner you start treating them with love the sooner the process of fusion with them will be possible.

Love in the ordinary sense is often equated with sexual relations. Sternberg (2007) identifies intimacy, which includes sexual intercourse, as one of the three components of love. But why is sex so important to humans and why is it closely associated with love? Practice shows that people have sex not only for procreation. Within the framework of the proposed hypothesis, with an eye on the future fusion of consciousnesses, and taking into account the rigid connection of consciousness with the body, it is quite possible that close contact of bodies, and even with an inspiring feeling of orgasm, may well serve as the practice of convergence of consciousnesses for subsequent fusion.

By the way, about the fusion of all into one single consciousness. This is the third case considered above as possible, about someone or something controlling the behavior within some limits of all matter in the Universe. This being is seen as the limit of the fusion of consciousnesses. But this does not mean that it will arise sometime in the distant future. Nothing prevents him from being right now. It is like an ocean into which rivers flow, into which tributaries flow, into which streams flow. Streams have yet to fuse with ocean that already exists. But since that unified consciousness is your future, you can already now prepare for it, love it as yourself. And this is also spoken of in the above-mentioned commandments as the Lord God. I.e. our final destination in the process of fusions is a being that can be identified with what is called the God.

There are, however, some differences in the characteristics of this creature and the one who is called the God. In monotheistic religions God is the central figure, the almighty supreme personality, as well as the Creator of the Universe and all living things in it. It is considered eternal, immortal, omnipresent, omnipotent, omniscient, unchanging, etc. In the framework of the hypothesis omnipresence can only be within the boundaries of our Universe, i.e. where matter is that can be controlled. If there are some other worlds, other universes then our God is unlikely to be able to exist there as well. Omnipotence is under a big question already in our Universe. It is hardly possible to control the behavior of particles contrary to the laws of material nature. According to hypothesis the God can hardly be considered unchanged. Any consciousness that has fused with Him already changes Him and, one would like to think, enriches Him. Otherwise why does He need this fusion? But what can the consciousness coming to Him offer Him besides its knowledge and experience? This means that He cannot be called omniscient either if He is enriched with new knowledge. Moreover it is possible that obtaining new knowledge is the main goal of God. There is also no reason to assert the eternity of Him. Taking into account the currently popular theory of the expanding Universe [Friedmann 1922] and the associated Big Bang theory [Hawking, Mlodinow 2010], it is more likely that He was born at the moment of the birth of the Universe.

According to the Big Bang theory the universe could have arisen as a result of quantum fluctuations. In our world, such fluctuations can lead to the birth of material particles seemingly out of nothing. The Heisenberg relations allow violation of the conservation law for some time. But then these particles annihilate or decay or disappear. Unless, of course, we are not talking about the creation of particles in strong fields where the energy for the creation of particles is taken from these fields and the generated particles can exist for a long or theoretically infinite time. Birth and subsequent disintegration are determined by quantum of action, Planck's constant. In our world this is a very small value. As a result, the lifetimes and energies of particles are noticeable only for our microcosm and are practically invisible in our macrocosm. But in the world in which the fluctuation arose and our Universe was born the quantum of action can have a much larger value. Accordingly the lifetime of our Universe can be measured in tens of billions of years. But in the end the Universe according to this model will have to disappear, and along with it the Being who able to control the behavior of all matter in the Universe, the Being who can be correlated with the one who is called the God. Thus, the immortality of God is also under a big question.

Nevertheless, according to the hypothesis under consideration it is possible to shed light on the purpose of the emergence of this Being, its existence, as well as its supposed death. The Bible says that God created mankind in his own image[[4]](#footnote-4). Therefore let’s turn to similarity considering the birth of a human and the possible goals of her existence and death.

In accord with hypothesis of the fusion of consciousnesses a human's consciousness is "attached" to a certain set of ensembles of particles in the human body, presumably in the brain. These are instruments of consciousness through which it can influence other organs of the body and receive information about the external world. Since human consciousness up to this point has undergone many fusions and has mastered the management of a sufficiently large amount of matter and "has built up a certain mass", such a consciousness cannot be "settled" in the body of a butterfly, for example. It just won't fit there. The opposite is quite possible, though. One can meet mentally disabled people who behave not reasonably enough for a human. It is quite possible that their consciousness is at the level of some animal which is unable to control the amount of matter provided to it. Since such cases are quite rare it can be assumed that there are some laws of the non-material world that regulate the fitness of bodies with consciousnesses of their levels.

If consciousness has a rich prehistory, why do we not remember our past, our life in another world, our previous incarnations, the experience of previous fusions if they were? Although, one can find many testimonies of people who supposedly remember their previous lives. But they can hardly be considered as arguments from a scientific point of view. To answer the question posed let's see how we store our memories, the information we need, and other knowledge? Whether it is records on paper or on stone or in wood or on magnetic and optical media, in any case all our information is stored on tangible media. We use material objects and bring them into certain physical states, then we act on them physically in order to read information from them. In human experience, there was not a case when information was stored not on matter. It is logically to conclude that the memory of our previous lives is also stored on matter that was at our disposal at that time. If the consciousness is rigidly attached to the body and in this body there are no material particles on which the previous memory is stored, then the consciousness simply has nowhere to draw this memory from. But these conditions can be violated if the body contains particles on which the previous memory was stored. The circulation of substances in nature allows for a nonzero probability of particles with a previous memory to be in a present body. Another case is that the connection of consciousness with the body weakened, for example, during sleep, including hypnotic sleep. One can suppose that under these conditions the access to previous lives can be available.

So, settling in the body consciousness begins life from a clean slate having no baggage of knowledge but only knowing how to handle a certain set of material particles. This skill is most likely determined by the "mass" of consciousness. I.e. consciousness has the ability to press the buttons available “at hand” and receive some signals from the “indicators”. Consciousness still does not know how to use these buttons purposefully, but it learns, writing down the results of experiments on the matter provided to it and forming programs of behavior in response to external influences. Having learned how to use her body a human learns the world around her and learns to use it.

As practice shows a human learns to handle her body and the world around her most actively in the first two decades. And some devote their whole life to the knowledge of the world and its laws. I.e. knowledge takes a significant part in the life of every human. Hence, this is either a necessary condition for the fulfillment of some goal, or knowledge of the world and is the main or one of the main goals of human existence.

Consciousness in the body has a very perfect tool for influencing matter. And consciousness in the human body, moreover, can create many more tools for this. Now humanity can already influence the whole planet with irreversible consequences. Outside the body consciousness most likely does not have such possibilities since there is no very first instrument - the body. I.e. the human body represents an unique opportunity for consciousness to cognize the material world. And the fact that human actively uses this opportunity says that such a goal is relevant. But the question remains relevant, why should a human learn the world? If to adhere to the hypothesis then, apparently, the knowledge of the world is that improvement of consciousness without which subsequent fusions are impossible.

At the end of the life every living being has to die. What happens in this case with the luggage accumulated by her, with her knowledges? According to the testimony of some clinical death survivors, at this moment the whole life flies before them in almost an instant. American researchers [Borjigin et al 2013] studied brain activity in rats and found abnormal brain activity within seconds of death. They believe that something similar can occur in the human brain, and it is the increase in brain activity that can cause visions in the dying state. But this does not explain why the brain increases its activity and why all life rolls in visions. However, if we approach this issue bearing in mind that consciousness should leave the body and the accumulated knowledge should be available even after the death of the body then one can offer an explanation for such visions and abnormal brain activity.

Memory in the brain is stored on particles of matter and, most likely, electromagnetic interactions are used for this. They are much stronger than gravitational ones and much more high-speed and long-range than nuclear ones. Therefore, it is more convenient for the consciousness to use them during life. But their disadvantage is the low density of information. During life this deficiency is leveled out by a rather large amount of a certain structured substance used for memory. But after death the structures of memory cells are destroyed and all the accumulated information can disappear. Other media are required to overwrite it. Apparently nuclear and subnuclear carriers can be used for this aim. In this case strong and weak nuclear interactions can be used. On their basis the density of information per unit of matter can be many orders of magnitude higher than for electromagnetic interactions. Conventionally, information can be placed on one atomic nucleus as much as on a multi-million ensemble of electrically charged particles. So at the moment of death, apparently, the person's memory is being rewritten into a form more convenient for posthumous use. Therefore the activity of the brain increases since at this moment there is an active appeal to the memory cells, and all life is seen since it is being rewritten on other carriers. It is noteworthy that all survivors watched this process passively. Consequently, memory rewriting is carried out in an automatic mode without the active participation of consciousness, as well as breathing, heartbeat and other autonomous life support systems.

So, if to apply the analogy of human life to a single Being, He had to be born, develop and cognize the world, improve Himself and in the end die in this world. Birth can be compared to the Big Bang. The chapter 3 in the book of Ecclesiastes has the phrase having different interpretations: "a time to scatter stones, and a time to gather them" . Perhaps its meaning is completely different but it rather symbolically reflects the possible process of the birth of the Being and its subsequent development. At the moment of birth the Being splitted into an infinite number of particles, each of which had its own (elementary) consciousness, as a part of the Whole [time to throw stones]. And all the time that has passed since the moment of birth the Being collects his stones through those very fusions of consciousnesses [time to gather stones].

Like a human the Being needs matter to store information, to store His memory. Like a human the Being must cognize the world, both material and non-material. Like a human He must act on matter for its cognition, for the purpose of Him to perfect. Since His perfection is associated with fusions of consciousnesses with each other and ultimately with Him can He somehow influence this process? Perhaps the laws of the non-material world are such that consciousness can’t be forced to fuse. But is it possible to contribute to this, to create some kind of conditions for this? For example, one can wait trillions of years for certain atoms to combine into a single DNA molecule, so that this molecule appears in suitable conditions, in order to start the process of creating biological mechanisms for corresponding consciousnesses could occupy them. Or if one have the ability to control the substance within certain limits then he can create this molecule in the right place and in the right amount. All one need to do is to impart certain impulses and energies to the necessary particles so that they meet in one place and react to product the necessary molecules that would become bricks for the same DNA. This should be quite within the power of consciousness with a certain level of development. Again, in order for this DNA to develop, evolve, lead to the growth of biological mechanisms serving as houses for consciousness an appropriate environment is needed. One can, of course, wait for it to appear itself in billion years, and one can push the corresponding "billiard balls" so that in the end a solar system would arise with a third planet with a convenient size, at a convenient distance from the sun, with the required sizes of outer planets for protection from unwanted space guests. A kind of cradle for beginning consciousnesses, so that they can develop, improve, prepare themselves for subsequent fusions each other and with Him at the end of the path. People, we know, take care of their offspring. Bed, clothes, food, conditions. It would be strange if all this would be left at the mercy of chance, i.e. evolution. Let the atoms themselves gather together and get a crib. And other atoms will gather and there will be food. Let the dwelling be built by itself by accident. Do we hope so and do not care for the children? So, why shouldn't He or the lower-ranked consciousnesses take care of and create nurseries, kindergartens, schools for those who have to grow up and join them? Maybe the Earth and living beings on it are the very nurseries for consciousnesses up to the human level. But then there should be a great variety of such nurseries in the Universe.

The question arises with free will. Is fusion a mandatory process? Apparently not. If consciousness suddenly does not want further fusions, nothing and no one can force it, except itself. And the example of this is the cases of dissociative identity disorder. But then what will happen at the end of the path, at the moment when both the Universe and the Being are to die? Apparently, the Being does not have such a goal to collect all consciousness. His goal is improvement, and it may also consist in cleansing from the alien, superficial. I.e. some part of the consciousnesses will not achieve fusion with Him.

Because of diversity of consciousnesses in terms of the level of development there are elementary consciousnesses of particles, more developed viruses, bacteria, other living beings up to the human level and maybe upper. But elementary particles were billions of years ago and there will be billions of years more. If by the end of the Universe and the death of the Being they will be and with them many more developed consciousnesses. Then, it turns out, they are all doomed to wash away with the mud, with those who of their own free will do not want to come to Him. At that they may not want refusing the path of fusion at all. To solve this problem either physical laws must be changed in order not to allow elementary consciousnesses to appear in elementary particles. This means a change in Heisenberg's law, in particular. Or matter must be removed from the cycle of matter and consciousness. It is possible that black holes serve to remove matter from the circulation. Along with the fusion of consciousnesses the fusion of matter also occurs.

## Conclusions

Starting with fundamental physical laws we came to the boundaries of the material world and looked beyond them. Something like consciousness was found there. The hypothesis of the fusion of consciousness allows us to build a picture of the world that explains many incomprehensible moments reflected in the legends and beliefs of people. In particular, the hypothesis explains the existence of who is usually called the God and our relationship with Him and with others like us. The hypothesis also gives the goal of human existence and the tasks facing him in the form of learning the laws of nature and preparing oneself for the subsequent fusions, in order to fuse with God at the end of the path and become God himself.

**References**

**Aspect, Alain** (December 16, 2015). Closing the Door on Einstein and Bohr's Quantum Debate. Physics. **8**: 123.

**Jimo Borjigin, UnCheol Lee, Tiecheng Liu, Dinesh Pal, Sean Huff, Daniel Klarr, Jennifer Sloboda, Jason Hernandez, Michael M Wang, George A. Mashour**. *Surge of neurophysiological coherence and connectivity in the dying brain*. Proceedings of the National Academy of Science USA. 2013; 110(35): 14432-7. doi: 10.1073/pnas.1308285110.

**Niels Bohr,** Discussion with Einstein on Epistemological Problems in Atomic Physics. In Paul Arthur Schilpp (ed.), The Library of Living Philosophers, Volume 7. Albert Einstein: Philosopher-Scientist. Open Court. pp. 199--241 (1949).

**Bell, John Stewart**. *ON THE EINSTEIN PODOLSKY ROSEN PARADOX*. Physics Vol. 1, No. 3, pp. 195-200, 1964.

**Chu, J. A., Dell, P. F., Van der Hart, O., et al.** **International Society for the Study of Trauma and Dissociation**. *Guidelines for treating dissociative identity disorder in adults, third revision*. Journal of Trauma & Dissociation. 2011, 12, 115–187.

**Freud, Sigmund**. *Das Ich und das Es*. Internationaler Psycho-analytischer Verlag (Vienna), W. W. Norton & Company, 1923.

**Friedmann, A**. *Über die Krümmung des Raumes* // Zeitschrift für Physik : magazin. — 1922. — Bd. 10. — S. 377—386. — doi:10.1007/BF01332580.

**Hawking, S., Mlodinow, L.** *The Grand Design*. — Bantam Books, 2010. — ISBN 0-553-80537-1.

**Heisenberg, W**., *Ueber den anschaulichen Inhalt der quantentheoretischen kinematik und mechanik*. Z. Phys., 1927, 43, 172–198. English translation: *The physical contents of quantum kinematics and mechanics.* In Quantum Theory and Measurement (eds Wheeler, J. A. and Zurek, W. H.), Princeton University Press, Princeton, New Jersey, 1983, pp. 62–84; Die rolle der unbestimmtheitsrelationen in der modernen physik. Monatsh. Math. Phys., 1931, 38, 365–372.

**Lenin, Vladimir I.** *Materialism and Empirio-Criticism: Critical Comments on a Reactionary Philosophy, 1908, Progress Publishers, Moscow, 1975, 114*. In English available at <https://www.marxists.org/archive/lenin/works/1908/mec/>

**Robert J. Sternberg**. *Triangulating Love*, in T. J. Oord ed. The Altruism Reader (2007), p. 332.

**Wang, Y., Liu, D. & Wang, Y**. *Discovering the Capacity of Human Memory*. Brain and Mind 4, 189–198 (2003). <https://doi.org/10.1023/A:1025405628479>

**Ruzbehani, M**. *Simulation of the Bell inequality violation based on quantum steering concept.*Sci Rep 11**,**5647 (2021). <https://doi.org/10.1038/s41598-021-84438-9>

**Zeilinger, A.,** “*Experiment and the foundations of quantum physics*,” Reviews of Modern Physics, 71: S288-S297. 1999.

1. <https://www.labirint.ru/books/724349/>. In Russian. Last visited at 20.10.2021. [↑](#footnote-ref-1)
2. <https://www.leicestermercury.co.uk/news/leicester-news/loving-couple-vera-wilf-die-145347>. Last visited at 08.10.2021. [↑](#footnote-ref-2)
3. <https://www.gosocial.co/husband-and-wife-married-for-70-years-pass-away-within-minutes-of-one-another/>. Last visited at 08.10.2021. [↑](#footnote-ref-3)
4. Genesis 1:27: «So God created mankind in his own image», https://biblehub.com/genesis/1-27.htm [↑](#footnote-ref-4)