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Solving Unsolved Problems in Neuroscience

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Abstract: Here, applying the brain-mind resonance described within the Scale-Symmetric Theory (SST), we solve the unsolved basic problems in neuroscience.

Introduction

The Scale-Symmetric Theory (SST) [1] shows that the Einstein spacetime (ES) consists of the spin-1 neutrino-antineutrino pairs. There can be the free ES pairs (they interact only gravitationally) which are the components of dark energy, or groups of confined and/or entangled pairs. There are two possibilities for entangled ES pairs. In photons, gluons, and electric charges, the spins of the entangled ES pairs are perpendicular to their velocities so spins can rotate. It means that the ES pairs can carry electromagnetic energy and they can interact electromagnetically. On the other hand, in dark-matter (DM) structures, the spins of the entangled ES pairs are parallel/antiparallel to their velocities so spins cannot rotate i.e. the DM structures cannot interact electromagnetically. In the DM knots, the lines of electric forces are closed. It means that when the DM knots overlap with brain then the DM knots induce, all the time, the loop electric currents in the brain. On the other hand, the loop electric currents induced in brain by senses create new DM knots in our brains. It is the brain-mind resonance [2].

In [1] and [2], we showed that when we introduce superluminal entanglement, quantum mechanics disappears, which means that we prove that quantum mechanics is an approximation of classical mechanics and not vice versa. Emphasize also that SST is the simplest theory, starts from smallest number of initial conditions, and gives best results. We calculated more than a thousand physical quantities which are consistent with experimental results.

On the other hand, in [2], in this article, and in many other papers, we showed that by introduction of the brain-mind resonance and by introduction of the mind composed of the DM structures and by introduction of the brainwaves which change level of consciousness, we can solve most of the unsolved basic problems in neuroscience. In [2], we showed that the same elements in different DM knots attract each other, which increases the intensity of the excited currents in the brain associated with these elements. The vice versa is also valid i.e. stronger external stimuli increase the intensity of the excited currents in the brain so produced DM knots in mind are more stable.

Below we define unsolved problems and then show how they can be easily solved.

1. How is information coded and decoded and how is time represented?

It is not true that information is coded in neural activity. Senses induce loop electric currents in brain which produce the DM knots in brain i.e. information is coded in the DM mind.

It is difficult to forget about great experiences because it is difficult to suppress the strong brain-mind resonance (it looks as mania).

Generally, the mechanism responsible for consciousness effectively suppresses the brain-mind resonance.

The events from the beginning are linked to the date i.e. the event and date are encoded in the same DM knot. If not, we cannot place the event in time. For example, clairvoyants have great difficulty placing the prophecy in time. Via senses we can activate a key word(s) in a DM knot – it re-activates the mind-brain resonance so we have access to whole information in the DM knot or knots with encoded the key word(s).

2. What the brainwaves represent?

The brainwaves are the sum of currents generated by the DM mind and induced due to the mechanism responsible for consciousness.

3. What is the mechanism of new idea emergence?

Thinking is like solving crosswords but instead of crossing words we have the DM knots that are the three-dimensional objects. Eureka appears when the number of DM knots related to the issue under consideration and the number of crossings in the crossword are large.

4. Free will and decision making

We described such mechanisms in [2].

5. Is it possible to recover loss of motor function?

A mature brain is not very plastic so the task is much more difficult than learning to walk when young. Simply reactivating the brain-mind resonance in this case is not a simple task because the induction of currents by the DM mind in the damaged brain is difficult or even impossible. Note that the brain is damaged, not the DM mind.

6. Why we sleep and dream?

During sleep, due to the mechanism associated with the change in the level of consciousness, the brain-mind resonance is effectively suppressed but the mind still works intensively, i.e. arranges crosswords using the DM knots. Often, solutions to problems appear as soon as you wake up. During sleep the DM mind organizes information from the most important to the least important because its work is not disturbed by the brain-mind resonance.

Our dreams concern the mentioned above process of organizing information, so unreal stories also appear.

7. Language

Thanks to the DM knots, the word and its one or more meanings are encoded in the same DM knot.

8. How and why did the brain evolve?

Brain evolution resulting from the brain-mind resonance clearly depends on its initial state because in a more complicated brain it can create DM knots containing more information.

Gene mutations are needed to create a more complicated brain. But notice that the thought processes also modify the brain structure because of the brain-mind resonance.

Theoretically, positive thinking can cure the disease, but it is not an easy task.

9. How are the senses integrated?

The senses are integrated because of the interactions (entanglement) of the DM knots.

10. What are emotions?

They as well are the DM structures which recreate the body's original behaviour through the induced currents in brain.

11. How does brain simulate the future?

The DM knots organization that changes over time can suggest future events.

References

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[2] Sylwester Kornowski (3 December 2019). "Deterministic Free Will with Resonant Decision Making" http://vixra.org/abs/1912.0066