

Philosophy

Neutrinos & consciousness: fundamental link between the weak force, neutrino and biological cell? [closed]

Asked 10 months ago Active 10 months ago Viewed 169 times



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Closed 11 months ago.

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I noticed several publications about a potential fundamental link between the weak force, electron neutrino and biological cell as origin of consciousness, however, there appears to be no 'buzz' about it on the internet. (a search on *physics.stackexchange.com* provided 0 results).

Questions:

1. are there serious indications that neutrinos can be the origin of consciousness? If so/not, why?
2. what philosophical ground would there be for the idea that neutrinos (something outside the scope of the individual) is the origin of consciousness?

(2015) **Paradigm shift for biology and consciousness theories**

For the last twenty years, a wide range of philosophers, scientists etc. have made a concerted effort to come up with a fundamental theory to explain consciousness. It was in the words of Chalmers (1995) a 'hard problem' looking for a solution. Over those twenty years progress has been slow.

About the time the drive to come up with a theory of consciousness began, a paper was published (Goodman 1994) that argued for a fundamental link between the weak force, electron neutrino and the biological cell.

Surprisingly, weak force decoherence times over cellular distances are of the relevant dynamical timescale needed, suggesting that if any force is associated with the global properties in and between neurons (such as consciousness) it is the weak force. This finding concurs with a twenty year old theory that argues for a fundamental link between the weak force, electron neutrino and the biological cell. That theory also predicted the mass of the electron neutrino that is soon to be

verified. The consequences for biology and future consciousness theories, of this radical change of paradigm, are considered.

<https://pdfs.semanticscholar.org/f8f7/977fed4fc4f3663634bf3f2185f478b60cae.pdf>

(2018) **The role of Quantum Mechanics in Nature** The brain could use quantum mechanical neutrino interactions between existing atomic nuclei (Goodman 2015) to create the mind where a 'global' communication and mental experience (consciousness) could take place.

<https://arrow.tudublin.ie/cgi/viewcontent.cgi?article=1100&context=scschphyart>

consciousness quantum-physics

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asked Feb 3 at 22:51

 **optimalisatie**
27 ● 3

There is no buzz because most physicists and neuroscientists consider it far fetched, to put it mildly. Even more so than they do similarly minded Penrose-Hameroff's idea that consciousness causes quantum gravity collapses in microtubules, which at least came with a detailed model and predictions rather than vague but grand claims based on a decoherence time estimate. – Conifold Feb 3 at 23:25

- 1 @Conifold: OrchOR doesn't involve quantum-gravity, just quantum behaviour like chlorophyll uses. – CriglCragl Feb 4 at 0:33

@CriglCragl But it does:"*Tubulin quantum coherent superpositions and computations are increasingly combined to augment their superposed mass energy. Once the energy meets the critical threshold of quantum gravity, self-collapse occurs. That is, at this moment, the consciousness event occurs...*", [Li et al., The finer scale of consciousness](#). – Conifold Feb 4 at 8:04 ✎

1 Answer

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For neutrinos to serve as the source of consciousness, they would need to exert influence on massive particles like the constituent atoms in protein molecules at a rate sufficient to support the information transfer rate characteristic of the human brain.



But neutrinos are well-known to have an interaction rate with matter so low that they can travel through solid lead for light-years without interacting just once with any of the lead atoms in their path.

Since electroweak physics on the scale of atoms has no influence at all on human thinking about philosophy, philosophy has nothing at all to say about neutrinos- so there is no philosophical ground upon which to assert any claim about neutrinos as the source of human consciousness.

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answered Feb 3 at 23:47

 **niels nielsen**



3,308 ● 1 ● 4 ● 16

Thank you for the answer! You mention that neutrino interaction with matter is low, but how can that be known? Weak force interaction was measured for the first time in 2018 between protons and neutrons. Perhaps, today's technology is simply not capable of measuring any 'weak force' based interaction at the level of Neutrino's. futurity.org/weak-force-atoms-physics-1956822 – [optimalisatie](#) Feb 4 at 10:09

You mention that there is no philosophical ground upon which to consider neutrinos to be potentially the origin of consciousness. There are some indications that what enables life to be possible originates from outside the scope of the individual. 'Valuing' logically precedes the senses which implies that the origin of consciousness must lay outside the scope of the individual. – [optimalisatie](#) Feb 4 at 10:10

@optimalisatie, the interaction cross-section for neutrinos with protons and neutrons has been accurately known since the 1950s, having been measured in big particle accelerators and verified numerous times in other experiments since. The assertion that those measurements cannot be made with today's technology is false. – [niels nielsen](#) Feb 4 at 16:12

@optimalisatie, I am a physics guy who believes on evidence in a realist world view. This places natural constraints on which theories of the world I am willing to spend time studying, which includes theories of life and of consciousness. This means that I don't think that theories of life or self that might originate outside the individual are worth studying, and so I do not. But there are plenty of others here who might, that you could explore such things with. – [niels nielsen](#) Feb 4 at 16:16

Neutrinos can morph, increasing their mass up to 3000x in size (maybe more, recently a fourth heavy weight flavor was discovered) which is why the particle is called a "Ghost Particle". Perhaps interaction on a larger scale is possible. If the effect is merely propulsion, the physical reality would essentially be decoupled and merely derives 'the arrow of time' from the effect of neutrino interaction. – [optimalisatie](#) Feb 4 at 17:14 ✎
