# Psychedelic induced experiences as key to the understanding of the connection between magnetic body and information molecules?

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#### Abstract

There is a book about psychedelics titled as "Inner paths to outer space: Journies to Alien Worlds through Psychedelics and Other Spiritual Technics" written by Rick Strassman, Slawek Wojtowicz, Luis Eduardo Luna and Ede Frecska. The basic message of the book is that psychedelics might make possible instantaneous remote communications with distant parts of the Universe. The basic objection is that light velocity sets stringent limits on classical communications. In TGD framework this argument does not apply. In the article a model for remote mental interactions is constructed using basic notions of TGD inspired quantum biology such as magnetic body, dark photons, and Zero Energy Ontology.

## 1 Introduction

There is a book about psychedelics titled as "Inner paths to outer space: Journies to Alien Worlds through Psychedelics and Other Spiritual Technics" written by Rick Strassman, Slawek Wojtowicz, Luis Eduardo Luna and Ede Frecska [J1]. The basic message of the book is that psychedelics might make possible instantaneous remote communications with distant parts of the Universe. The basic objection is that light velocity sets stringent limits on classical communications. In TGD framework this argument does not apply.

In Zero Energy Ontology (ZEO) communications in both directions of geometric time are possible and kind of time-like zig-zag curves make possible apparent superluminal velocities. Negentropic quantum entanglement provides second manner to share mental images, say sensory information remotely. The proposed model leads to a general idea that the attachment of information molecules such as neurotransmitters and psychedelics to a receptor as a manner to induce a remote connection involving transfer of dark potons signals in both directions of geometric time to arbitrarily long distances. The formation of magnetic flux tube contact is a prerequisite for the connection having interpretation as direct attention or sense of presence. One can see living organisms as systems continually trying to build this kind of connections created by a reconnection of U-shaped flux tubes serving as magnetic tentacles. I have published the material of the article for about year ago at my homepage in the chapter [K1] of "TGD Based View about Consciousness, Living Matter, and Remote Mental Interactions".

## 2 Some background about psychedelics

Phychoactive drugs can be classified into three basic types. Some raise the activity level, some calm down, and some change the character of consciousness profoundly. Pychdelics/hallucinogens [J1] belong to the third group. Psychedelics (such as psilobin, psicylobin, DMT, LSD) are molecules containing aromatic rings and many of them (such as psilobin, psicylobin, DMT, LSD) attach to serotonin receptors.

As the official term "hallucinogens" implies psychedelic induced experiences are regarded as hallucinations in the materialistic world view although the denial of the reality of subjective experiences themselves requires a really hard-nosed skeptic. The title of the book reveals that the question posed in the book is whether these experiences could be about real world, kind of sensory input from distant parts of the Universe. The indigenous people using ayahuasca and similar psychedelics have regarded these experiences involving meeting of representatives of other civilizations as perceptions about real worlds. Also Terence and Dennis McKenna, who are pioneers of systematic study of the effects of various psychedelics, shared this view. In the materialistic ontology of standard physics this kind of interpretation is of course excluded. That hallucinations are in question is "obvious", too obvious actually!

The classical psychedelics LSD, psilocybin, DMT, and mescaline are derivatives of two basic chemical groups: tryptamine and phenetylamine which in turn derive from the amino-acids trp and and phe. DMT is endogenous psychedelic and there is pumping of DMT blood-brain barrier so that DMT must have important function in brain. The action of classical psychedelics is on serotonin receptors and affects the serotonin intake so that the effect is stronger. The amount of serotonin in brain is not large but manifest in all functions. According to the book, the situation might be different for pineal gland which is the only nucleus of brain which does not appear as left-right pair. Descartes regarded it as the seat of soul. Pineal gland is also known as "third eye" and in lower species it indeed serves the function of eye. Taking the title of the book seriously, one can ask whether this eye is able to see but to cosmic distances possibly using large  $h_{eff}$  photons.

## 3 Could instantaneous communications in cosmic scales be possible in TGD Universe?

In TGD inspired ontology the notion of magnetic body with astrophysical, galactic or even supergalactic size changes the situation completely. The basic communication tool would be touch of magnetic bodies generating reconnections and making possible signalling from the biological body member of distant civilization. The perception of the biological body of alien would differ in no manner from that of my neighbor since the mechanisms would be the same as involved with the transfer of sensory data to my personal magnetic body and control commands from there to biological body (at least through genome).

The basic objection against the possibility suggested by the title of the book is that finite light velocity poses absolute upper bound for the distance of objects with it is possible to be in contact during "trip". One must be however very cautious here: the assumption that signals propagate only to singlet direction of time is essential also and derives from classical thermodynamics. In TGD framework second law continues to hold true but the arrow of geometric time for zero energy states changes in each state function reduction occurring to the either boundary of CD. Hence intantaneous communications ("remote seeing"!)using reflection in time direction become possible even over cosmological distances and define among other things the mechanism of memory in TGD Universe.

Time consuming and expensive space travel would become un-necessary: our magnetic body giving us cosmic size together with zero energy ontology making possible instantaneous "seeing" of both future and past by reflection of photons in time direction would be enough. Memory and anticipation would be basic examples about seeing in time direction. This view would also resolve Fermi paradox. We could be actually in a continual contact with the distant civilizations but without realizing it. One can ask whether similar contacts could take place in psychedelic induced experiences. Memories and future plans would be examples of "seeing" in time direction. The continual re-creation of the Universe by quantum jumps would of course mean that the actual future/past need not be same as those which are "seen". Shamans identify various plants as conscious entities teaching them - in TGD framework this would translate to magnetic bodies of representatives of distant civilizations remotely teaching the representatives of more primitive civilizations.

## 4 Neurotransmitter receptor complex as plug-in to cosmic internet and a new perspective on remote seeing

If one - just for fun - takes seriously the claims of shamans, one must ask whether our brain has well developed tools available for building contacts with distant civilizations and what these tools might be. The receptors of neural transmitters are obviously the natural candidates for the pathways to cosmos. One can argue that evolutionary pressures have forced living matter to develop highly standardized connections to various parts of the personal magnetic body and possibly also other magnetic bodies. Personal magnetic body has astrophysical size and EEG frequencies would correspond to communications in Earth size scale. Receptors serving as Josephson junctions emitting Josephson radiation with frequency characterised by  $h_{eff}$  are natural candidates for plug-ins.

The model for cell membrane as Josephson junction leads at the microscopic level to the view that the proteins associated with various ion pumps, channels, and receptors (of also neurotransmitters in postsynaptic junction) define Josephson junctions to which magnetic flux tubes are associated and characterized by local value of Josephson frequency, that is membrane potential and Planck constant  $h_{eff}$ . As the information molecule is attached to a receptor, a connection to some part of the some magnetic body would be generated and split as the molecule is not present. These connections are possible in the scale cell, organelle, organ, organism, population and maybe even in the scale of cosmos. Psychedelics affect serotonin receptors so that serotonin spends longer time in receptor.

The simplest picture is that the connection corresponds to a pair of flux tubes. As the connection is broken, the pair has suffered reconnection cutting it to two U-shaped closed flux tubes. When molecule is attached to the receptor, these U-shape closed flux tubes reconnect. The actual situation is of course expected to be more complex but the basic principle would be this.

In this framework psychedelics would be molecules associated with the reaction pathways facilitating the binding of neurotransmitters responsible for building connections to certain parts of the magnetic bodies characterised by passwords defined by collections of cyclotron frequencies corresponding to a hierarchy of space-time sheets. The Josephson frequency associated with the receptor is inversely proportional to  $h_{eff}$ . The natural guess is that it corresponds to the cyclotron frequency of the magnetic body part for electron, proton, or some ion associated with it. Josephson frequency should serve as kind of passwords and receptors would be in one-one correspondence with these passwords defining gateways even to the outer space if the value of Planck constant is large enough.

One might be able to test this crazy hypothesis. Pineal gland could still serve as the "third eye" but utilizing large  $h_{eff}$  photons. Fishes and birds are able to navigate to their birth places. This mechanism could involve dark electron Cooper pairs at the magnetic flux tubes of Earth's magnetic field generated by visible photons with energies above energy of red light making possible to move along magnetic flux tube: as the direction of flight ceases to be along it and spin direction of cyclotron Bose-Einstein condensate changes, cyclotron transitions induce dark photon emission at energy of visible photons in turn generating visual sensation. This would explain why radiation at MeV frequency leads to disorientation (cyclotron transitions are induced resonantly). This need not be enough. Could also "remote seeing" by pineal gland using the dark light coming along flux tubes (or maybe even active variant of this process by sending light which is reflected back in time direction). What about remote seeing in the "usual" sense of the word: could psychedelics help also in this process?

The role of DMT is especially interesting. Body synthesizes it and pumps it through bloodbrain barrier. I learned in private discussion that the experiences induced by DMT are relatively predictable (Terence Mac Kenna has described it as a sudden "dropping" to another world somewhere "below" through some kind of wall.) whereas other psychedelic substances induce rather unpredictable experiences. Could it be that DMT corresponds to a permanent connection to some fixed external magnetic body or to a higher layer of level of personal magnetic body with permanent reconnection to some part other magnetic body? DMT as also other psychedelic substances would only help to induce the signal as Josephson radiation. This would be analog to the higher probability of remote mental interaction due to pre-bonding. What happens during sleep: is this connection generated during sleep: what about concentration of DMT during sleep in various brain regions.

The transmitter-receptor complex would be naturally associated with the communications to the magnetic body and possible communications from magnetic body as sensory experiences such as psychedelic experiences and mediated by radiation in opposite time direction. Also control commands from magnetic body - assumed to be realized as signals in opposite time direction as compared to sensory signals - are important and a natural assumption is that the commands initiating gene expression enter through genome via flux sheets traversing through DNA: the time scale for gene expression is slow and also other mechanisms are very probably involved. If both genome and cell membrane can (on general grounds it seems that they must do so) send signals in both time directions, the general vision about motor action as time reversal of sensory perception implies that cell membrane receives also control commands. More generally, the complex formed by reacting biomolecules and catalyst could form a complex receiving control commands from the magnetic body. A temporary fusion of a catalyst molecule and of reacting molecules could serve as the analog of the information molecule-receptor complex. The protein Josephson junction associated with this complex would receive in a resonant manner cyclotron radiation from the magnetic body inducing a transition to a state in which the potential barrier preventing the reaction would be lower.

Irrespective of whether one takes seriously the thought game leading to this proposal, one must admit that it would provide deep for the notion of "information molecule".

## REFERENCES

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## Books related to TGD

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