

Quantum model of memory

1. involves Zero Energy Ontology (ZEO) based view about state function reduction.
 - (a) explaining how the arrow of geometric time is induced from that of subjective time.
 - (b) predicting that the arrow of geometric time can change in some situations.
 - (c) implying the notions of 4-D brain and body and magnetic body.
2. relies on the possibility that the arrow of time can change temporarily
 - (a) NMP should dictate whether it can occur
 - (b) the models of memory, remote metabolism and realization of intentional action rely on negative energy and require change of the arrow of time for these signals.
 - (c) Phase conjugate laser light beams serve as good candidates for this kind of signals.
 - (d) Already physicist Fantappie introduced the idea that the arrow of time is not fixed in living matter and introduced the notion of syntropy identifiable as entropy but with opposite arrow of geometric time.
3. allows to consider
 - (a) geometric memories as "seeing"/communication in time direction.
 - i. The negative energy photons sent by "brain now" are reflected from the brain of geometric past as negative energy signals and received by the "brain now".
 - ii. "Brain" in "brain now" and in "brain then" can be replaced by "biological body" or "magnetic body".
 - iii. The reflection from the brain of geometric past would in the idealized situation be interaction free quantum measurement of systems possessing negentropic entanglement reading of "Akashic records".
 - (b) subjective memories.
 - i. They would rely on sharing of mental images of "brain now" and "brain then" via negentropic entanglement between subselves representing the mental images.
 - ii. Make possible episodal and sensory memories: re-experiencing.
 - (c) also memories identified as learned behaviors.
 - i. These are identified as topological quantum computer (tqc) programs represented by magnetic body parts serving also templates for the morpho- genesis and morphostasis.
 - ii. The replication of these magnetic body parts could precede replication of DNA, cell, and even entire organisms like planaria.
4. predicts that
 - (a) in principle the storage of memories in recent brain is unnecessary so that one avoids problems due to a finite storage capacity.
 - (b) repeated memory recalls create copies of the memories as symbolic representations.
 - (c) Memory recall should be possible if only the part of brain responsible for it is intact.
5. predicts also that
 - (a) ordinary braidings of magnetic flux tubes defining strings.
 - (b) 2-braidings associated with string world sheets define memories as TQC program like structures with negentropic entanglement defined by the unitary S-matrix defining TQC.