

The question that inspired this article is whether memories about the future – precognitions – are possible in some sense. This requires retrocausality. The criticism of retrocausality relies on the assumption that time, in particular the thermo-dynamical time, has always the same arrow. TGD inspired theory of consciousness as quantum measurement theory based on zero energy ontology (ZEO) predicts that the arrow of time can vary and changes in ordinary – "big" –state function reductions (BSFRs): self dies (falls asleep) and re-incarnates with a opposite arrow of time. This leads to a generalisation of thermodynamics and allows to see self-organisation basically as a consequence of the generalised second law.

Precognition as a recall of future geometric memories would rely on sensory perception with an opposite arrow of time by some sub-selves assignable to the structures of the brain. The arrow of time would be reversed at some layer of the magnetic body in a master-slave relation with the biological body and induce an effective change of arrow at the level of ordinary biomatter in longer time scales than usual. The sensory perceptions with reversed arrow time would be communicated to the self as dreams meaning BSFR for the time reversed mental and its death and reincarnation with standard arrow of time. There are findings about Alzheimer patients supporting this hypothesis.

This proposal deviates from standard neuroscience in that ZEO and the notion of magnetic body carrying phases of ordinary matter with effective Planck constant $\hbar_{\text{eff}} = n\hbar_0 > \hbar$ behaving like dark matter. Also a purely biochemistry based hypothesis that biochemical factors responsible for the buildup of memory traces select the arrow of time: perhaps their shortage could lead to the selection of the opposite arrow of time.