

The notion of mirror neuron is extremely attractive because it could allow the understanding of the observed goal directed behaviors of living systems by inducing corresponding imagined or even real actions. The sensory input about behavior would automatically induce the neural activity representing intention about the behavior or imagined behavior. Mirror neuron hypothesis was derived originally for monkeys but has been considerably generalized. For instance, in the case of humans mirror neurons could allow an almost automatic understanding of intentions and emotions of other people.

In TGD framework the objections against mirror neuron hypothesis motivate its replacement with what I call time mirror hypothesis inspired by zero energy ontology, and stating that motor action and sensory perception are in a well-defined sense time reversals of each other. This hypothesis could explain the time anomalies assignable to mirror neurons if they are indeed involved (reactions tend assigned to mirror neurons tend to be `\blockquote{too fast}`) and also Libet's findings. This inspires the notion of quantum monadology: parts of brain would be continually time mirroring each other. Also magnetic body would be involved. The time mirror relationship could correspond to directed attention having as space-time correlates magnetic flux tubes carrying dark photon signals in both time directions. Time mirror hypothesis is applied to the entrainment of the speech motor regions with auditory areas at the opposite side of brain occurring at resonance frequency 4.5 Hz as discovered by Poeppel and Assaneo.

This vision allows to build a model of sensory memories with motivation coming from the findings challenging the standard view about them. This model in turn inspires a very general model of motor action applying also to basic biochemical processes such as transcription, replication, and translation as being induced by topological quantum computer programs running in non-standard time direction.