Time Reversed Self

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Abstract

Quantum measurement theory based on Zero Energy Ontology (ZEO) leads to a precise identification of the notion of self as a sequence of state function reduction at same boundary of causal diamond (CD) referred to as passive boundary. Self dies and re-incarnates at the opposite boundary of CD as the first state function reduction to opposite boundary of CD eventually forced by Negentropy Maximization Principle (NMP) [K2] takes place. To test this rather dramatic prediction through direct personal experience one should die first but there is a more clever manner to do it if one believes that selves form a hierarchy such that sub-selves define mental images of self. Mental images indeed die and re-incarnate all the time and this means that death of mental image should generate time reverse mental images. Is it possible to experience time-reversed mental image and how it differs from the original?

Time reversed cognition, reverse speech and writing are interesting phenomena allowing possibility to test these ideas. Also figure-background illusion and other kinds of illusions might give support for the notion of time-reversed mental image.

1 Time reversed cognition, reverse speech, and reverse writing

Time reversed cognition, reverse speech and reverse writing are interesting phenomena allowing possibility to test the idea about time reversed mental images.

1.1 Time reversed cognition

Time reflection yields time reversed and spatially reflected sensory-cognitive representations. When mental image dies it is replaced with its time-reversal at opposite boundary of its CD. The observation of these representations could serve as a test of the theory.

There is indeed some evidence for this rather weird looking time and spatially reversed cognition.

1. There are reports about time reversal of conscious experience: time is experienced to run to non-standard direction: I have myself had this kind of experience. It was horrifying and I was fighting to establish the normal direction of the experienced time flow. Could this mean that for some sub-CDs the standard arrow of time had reversed as some very high level mental images representing bodily me died and was re-incarnated?

2. The passive boundary of CD corresponds to static observing self - kind of background - and active boundary the dynamical - kind of figure. Figure-background division of mental image in this sense would change as sub-self dies and re-incarnates since figure and background change their roles. Figure-background illusion could be understood in this manner.

3. The occurrence of mirror writing [J2] is a well known phenomenon (my younger daughter was a reverse writer). Spatial reflections of MEs are also possible and the arrow of geometric time might determine the direction in mirror writing.

4. Reverse speech would be also a possible form of reversed cognition. Time reversed speech has the same power spectrum as ordinary speech and the fact that it sounds usually gibberish means that phase information is crucial for storing the meaning of speech. Therefore the hypothesis is testable.

1.2   Reverse speech

Interestingly, the Australian David Oates claims that so called reverse speech is a real phenomenon [J1], and he has developed entire technology and therapy (and business) around this phenomenon. What is frustrating that it seems impossible to find comments of professional linguistics or neuroscientists about the claims of Oates. I managed only to find comments by a person calling himself a skeptic believer but it became clear that the comments of this highly rhetoric and highly arrogant commentator did not contain any information. This skeptic even taught poor Mr. Oates in an aggressive tone that serious scientists are not so naive that they would even consider the possibility of taking seriously what some Mr. Oates is saying. The development of science can often depend on ridiculously small things: in this case one should find a shielded place (no ridiculing skeptics around) to wind tape recorder backwards and spend few weeks or months to learn to recognize reverse speech if it really is there! Also computerized pattern recognition could be used to make speech recognition attempts objective since it is a well-known fact that brain does feature recognition by completing the data into something which is familiar.

The basic claims of Oates are following.

1. Reverse speech contains temporal mirror images of ordinary words and even metaphorical statements, that these words can be also identified from Fourier spectrum, that brain responds in unconscious manner to these words and that this response can be detected in EEG. Oates classifies these worlds to several categories. These claims could be tested and pity that no professional linguist nor neuroscientist (as suggested by web search) has not seen the trouble of finding whether the basic claims of Oates are correct or not.

2. Reverse speech is complementary communication mode to ordinary speech and gives rise to a unconscious (to us) communication mechanism making lying very difficult. If person consciously lies, the honest alter ego can tell the truth to a sub-self understanding the reverse speech. Reverse speech relies on metaphors and Oates claims that there is general vocabulary. Could this taken to suggest that reverse speech is communication of right brain whereas left brain uses ordinary speech? The notion of semitrance used to model bicameral mind suggests that reverse speech could be communication of higher levels of self hierarchy dispersed inside the ordinary speech. There are also other claims relating the therapy using reverse speech, which sound rather far-fetched but one should not confuse these claims to those which are directly testable.

Physically reverse speech corresponds to phase conjugate sound waves which together with their electromagnetic counterparts can be produced in laboratory [D1, D2]. Phase conjugate waves have rather weird properties due the fact that second law applies in a reversed direction of geometric time. For this reason phase conjugate waves are applied in error correction. TGD based description of both electromagnetic and sound wave phase conjugation is based on negative energy space-time sheets representing classically electromagnetic fields and Z^0 fields [K1].

Negative energy topological light rays are in a fundamental role in the TGD based model for living matter and brain. The basic mechanism of intentional action would rely on time mirror mechanism utilizing the TGD counterparts of phase conjugate waves producing also the nerve pulse patterns generating ordinary speech. If the language regions of brain contain regions in which the the arrow of psychological time is not always the standard one, they would induce phase conjugates of the sound wave patterns associated with the ordinary speech and thus reverse speech.

ZEO based quantum measurement theory, which is behind the recent form of TGD inspired theory of consciousness, provides a rigorous basis for this picture. Negative energy signals can be assigned with sub-CDs representing selves with non-standard direction of geometric time and every time when mental image dies, a mental images with opposite arrow of time is generated. It would be not surprising if the reverse speech would be associated with these time reversed mental images.

2 Figure-background rivalry

The classical demonstration of figure-background rivalry (`http://en.wikipedia.org/wiki/Rubin_vase`) is a pattern experienced either as a vase or two opposite faces. This phenomenon is not the same thing as bi-ocular rivalry in which the percepts associated with left and right eyes produced by different sensory inputs are rivalling. This phenomenon is not the same thing as bi-ocular rivalry in which the percepts associated with left and right eyes produced by different sensory inputs are rivalling. There is also an illusion in which one perceives the dancer to make a pirouette in either counter-clockwise or clockwise direction although the figure is static. The direction of pirouette can change. In this case time-reversal would naturally change the direction of rotation.

Figure-background rivalry gives a direct support for the TGD based of self relying on ZEO if the following argument is accepted.

1. In ZEO the state function reduction to the opposite boundary of CD means the death of the sensory mental image and birth of new one, possibly the rivalling mental image. During the sequence of state function reductions to the passive boundary of CD defining the mental image a boundary quantum superposition of rivalling mental images associated with the active boundary of CD is generated.

   In the state function reduction to the opposite boundary the previous mental image dies and is replaced with new one. In the case of bin-ocular rivalry this might be the either of the sensory mental images generated by the sensory inputs to eyes. This might happen also now but also different interpretation is possible.

2. The basic questions concern the time reversed mental image. Does the subject person as a higher level self experience also the time reversed sensory mental image as sensory mental image as one might expect. If so, how the time reversed mental image differs from the mental image? Passive boundary of CD define quite generally the background - the static observer - and active boundary the figure so that their roles should change in the reduction to the opposite boundary. In sensory rivalry situation this happens at least in the example considered (vase and two faces).

   I have also identified motor action as time reversal of sensory percept. What this identification could mean in the case of sensory percepts? Could sensory and motor be interpreted as an exchange of experiencer (or sub-self) and environment as figure and background?

If this interpretation is correct, figure-background rivalry would tell something very important about consciousness and would also support ZEO. Time reversal would permute figure and background. This might happen at very abstract level. Even subjective-objective duality and first - and third person aspects of conscious experience might relate to the time reversal of mental images. In near death experiences person sees himself as an outsider: could this be interpreted as the change of the roles of figure and background identified as first and third person perspectives? Could the first moments of the next life be seeing the world from the third person perspective?

An interesting question is whether right- and left hemispheres tend to have opposite directions of geometric time. This would make possible metabolic energy transfer between them making possible kind of flip-flop mechanism. The time-reversed hemisphere would receive negative energy serving as metabolic energy resource for it and the hemisphere sending negative energy would get in this manner positive metabolic energy. Deeper interpretation would be in terms of periodic transfer of negentropic entanglement. This would also mean that hemispheres would provide two views about the world in which figure and background would be permuted.

A further interesting question relates to near death experiences (NDEs). In biological death the roles of boundaries of CD are changed and figure becomes background and vice versa. This could also mean that third person perspective becomes first person perspective and vice versa. In NDEs one indeed sees ones's own body from outside. Could this mean that in the beginning of reincarnation third person perspective dominates. One can go even further and ask whether the habit of children to talk about themselves as third person could relate to the dominance of third person perspective.

REFERENCES

Condensed Matter Physics

[D1] Pepper DM. Nonlinear Optical Phase Conjugation. *Opt Eng*, 21(2), March 1982.

[D2] Zeldowich BYa Shkunov VV. Optical Phase Conjugation. *Sci Am*, 1985.

Neuroscience and Consciousness

[J1] Words of truth. Available at: `http://www.reversespeech.com/words.shtml`.

[J2] Ellis AW Lambon-Ralph MA, Jarvis C. Life in a mirrored world: report of a case showing mirror reversal in reading and writing and for non-verbal materials. *J Neurosci* . Available at: `http://www.colorado.edu/Honors/honr4000-882dubin/nc.html`, 1(4), 1997.

Books related to TGD

[K1] Pitkänen M. Did Tesla Discover the Mechanism Changing the Arrow of Time? In *TGD and Fringe Physics*. Online book. Available at: `http://www.tgdtheory.fi/tgdhtml/freenergy.html#tesla`, 2006.

[K2] Pitkänen M. Negentropy Maximization Principle. In *TGD Inspired Theory of Consciousness*. Online book. Available at: `http://www.tgdtheory.fi/tgdhtml/tgdconsc.html#nmpc`, 2006.