

## **Conscious Spacetime. A possible connection between phenomenal properties and six-dimensional spacetime**

Einstein's special theory of relativity showed that space and time are relative but that spacetime intervals are absolute, the same for all observers, so spacetime is more fundamental. It is argued (e.g. Minkowski, Petkov) that spacetime is ontological four-dimensional, so all past events, all events now, and all future events exist at once in four-dimensional spacetime. This 4D spacetime can be visualised as a one-dimensional time-line where all points are full three dimensional worlds at that time. That people in near-death-experience can see their whole life at once can be interpreted as that this four-dimensional spacetime is open for direct conscious experience. There are mathematical and physical arguments for extending the theory of relativity to six dimensions, three space and three time dimensions. These extra dimensions have no straightforward physical interpretation. In analogy with the picture of one time dimension this 6D spacetime can be visualised as a three-dimensional time-box where all points are full three dimensional possible worlds. In analogy with that one seemingly can experience the four-dimensional spacetime in NDE, it is argued that the six-dimensional spacetime of possible worlds possibly can be related to conscious experience. Following Chalmers analysis and suggestion conscious experience is taken as fundamental. So the task is to formulate some bridging principles between the physical and the phenomenal conscious experience. Extra dimensions and timebox are not ordinary physical but seem physical enough as connected to the theory of special relativity, but also seem non-physical enough to possibly connect to phenomenal properties. It is proposed that all matter, not only microphysical, all events and processes in six-dimensional spacetime, have intrinsic aspects with phenomenal properties as their grounds. In this view sensory experiences are mainly localised in matter, but not in brain but in the experienced matter in space outside ones brain, the content in the now, the space- or matter-aspect of spacetime. Thoughts, fantasies and dreams, as all mental experiences, are in time, outside the space now, the time-aspect of spacetime and identified with events in possible worlds in the six-dimensional spacetime, which can be realised in the future, are lost possibilities for the now or haven't been realised in the past. Episodic memories are earlier realised events in spacetime. Wrong episodic memories are when we mistake a not realised possibility for a realised possibility. Semantic memories and abstract thoughts are interpreted as speech in a possible world. In this view processes in sensory organs and brain don't create our experiences but are the traces of how consciousness is brought in contact with phenomenal properties in the six dimensional spacetime outside our brain. A thought is mental as a possibility, which could have been or can be realised and thus be material. What is in the now a sensory experience, located in experienced matter, is in the next instant a memory, outside the now, that is mental. So mental and matter can transform into each other and seen as time- resp. space- aspect of Spacetime, as a form of Conscious Monism.

### Comments

Spacetime as fundamental and ontological 4D

Minkowski H. (1908) (1) Henceforth space by itself, and time by itself, are doomed to fade away into mere shadows, and only a kind of union of the two will preserve an independent reality and the word relativity-postulate for the requirement of an invariance seems to me very feeble. Since the postulate comes to mean that only the four-dimensional world in space and time is given by phenomena, but that the projection in space and in time may still be undertaken with a certain degree of freedom, I prefer to call it the postulate of the absolute world (or briefly, the world postulate).

Petkov V. (2005) (2) argues for the consequences of the objective reality of a 4D spacetime and claims that if the world and the physical objects were three-dimensional, none of the kinematic relativistic effects [as length-contraction, time-dilation, relativity of simultaneity JP] and the experimental evidence supporting them would be possible. the entire history of every object is realized and given once and for all as the objects worldtube. [its extension in spacetime JP] Petkov concludes that spacetime is ontologically 4D.

Maudlin, T. (2011) argues:

Violation of Bells inequality does require superluminal causal connections.

Six-dimensional relativity allows superluminal velocities, allowing reversal of cause and effect seemingly explaining an aspect of the difference between 1st (future thought as cause) and 3rd person (brain as cause) perspective writing these words.

(1) Space and time 1908 p75, 83. In Einstein A., Lorentz H., Weyl H., Minkowski H. (1923/1952). The Principle of Relativity. New York: Dover Publications.

(2) Relativity and the nature of Spacetime. p.122,152 Heidelberg: Springer

(3) Quantum Non-Locality and Relativity. p. 221. Oxford: Wiley-Blackwell Publishing