

# **Quantum Hologram Theory of Physics and Consciousness (QHTC) & the Spatial Acquisition Device**

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This short abstract will propose an additional element to the Quantum Hologram Theory of Physics and Consciousness (QHTC) called the Spatial Acquisition Device (SpAD). The QHTC needs a basic building block in how we organize and internalize our thinking about time and space. This basic building block can be found in Piaget's Cognitive Developmental Theory in which he demonstrates through a series of conservation experiments how children internalize the basic notions of time and space.

Piaget's theory has four stages: sensori-motor, pre-operational, concrete-operational and formal operations. All of us in our development go through these stages albeit not necessarily on the same time frame as has been demonstrated by research validating his theory. However, the invariance in the stages is solid. I have taken these stages and placed them along a spacetime continuum which will eventually lead us to the proposed Spatial Acquisition Device (SpAD).

The first stage focuses on sensori-motor (Birth-2yrs) learning in which the child learns via movement through space by raising their head, sitting up, rolling over, crawling and then by walking. The child experiences all the various dimensions of space from one dimensional space to three-dimensional space. A key component during this stage is the development of the concept of object permanence where an object continues to exist even

if it can no longer be seen. Prior to the development of object permanence, out of sight is out of mind, non-existent.

During the pre-operational stage (2-7yrs), the child begins the initial tasks of conservation and begins to internalize the concept and not being influenced by perception and how things change. Conservation of number occurs during this stage. In the concrete-operations stage (7-11yrs), the child moves on their conservation journey by acquiring conservation of area, length, weight, and volume completing their walk through the dimensions. Once the child has completed this dimension journey by internalizing these various levels of conservation when it comes to number, area, length, weight, and volume the Spatial Acquisition Device now governs how s/he will interact with the world on a spatial plane.

Let's return to the Importance of object permanence, Piaget's most important discovery. As far as the child is concerned prior to object permanence everything is a wave function and perceptual, not internally represented. Once object permanence takes hold it provides the basis of internalization and representation of external reality within the Spatial Acquisition Device. It is the beginning of the child's life arrow establishing the concept of linearity. Up to that point it is a non-linear relationship as far as the child is concerned.

The conservation experiments and the notion of figure-ground relationship and how children are perceptually bound is critical in their development. The ground part being the wave function which influences initial thinking and then object permanence comes into play and establishing one to one correspondence which moves the perceptual bound to internal understanding and doing this for 1D, 2D, and 3D. Number, area, and volume. Once

this occurs the SpAD is complete, but it all starts with sensori-motor and the child moving through space via stationary to raising their head, to crawling, to sitting, and then to walking as described earlier.

SpAD is similar to the Language Acquisition Device (LAD) as proposed by Noam Chomsky. It is hard wired into our circuitry and just as the LAD is our template for language and linear thinking, SpAD is our template for understanding our surroundings and non-linear thinking. It is how we make sense of our three-dimensional framework. It is a framework, template for understanding but at the same time it is a limitation in how we interact with that world. The SpAD has evolved in humans over the millennium, and it is the filter that we use to our knowledge base and how we interpret the world.

For additional information about SpAD, please check out the following:

<https://www.yumpu.com/en/account/magazines/edit/68498611>

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