

Subject: Science

Article: 36

Bit From It

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It is generally accepted that the world is made out of digital units, or rather from “bits”. Bits can have only two values, either zero or one. In an electronic gate 0 corresponds to the gate being closed and 1 corresponds to the gate being open. In our daily Aristotelian logic the two options correspond to yes or no. But recently, with the development of Quantum computers a new kind of bit came into existence. This is the Qbit or Qubit. The Qubit can be both 0 and 1. Therefore I propose that the aphorism “**It from bit**” should be changed to “**Bit from it**”. This is because bits are not the building blocks of nature, but are the result of our consciousness.

In my article No: 27 entitled “**About Consciousness**” [1] I said that in order to be able to observe a 3-dimensional world we must exist at least in the fourth dimension. The fourth dimension is not time, as Einstein has claimed, but is the mind or rather the human consciousness. Consciousness is not a byproduct of reality, but is a co-creator of reality. What is outside cannot be separated from what is inside. Quantum physics claims that everything is out of energy fields. We exist by defining and organizing these external energy fields into local objects with the help of our mind. In my article entitled “**Quantum Logic**” [2] I said that the belief in fundamental building blocks of nature do exist, is because we still believe in the external objective reality. This is a legacy left over from the classical world view. Our mind collapses external energy fields and builds localized objects. This transformation is necessary for our existence. This is because fields are ephemeral and spread out in space while objects are localized and tangible.

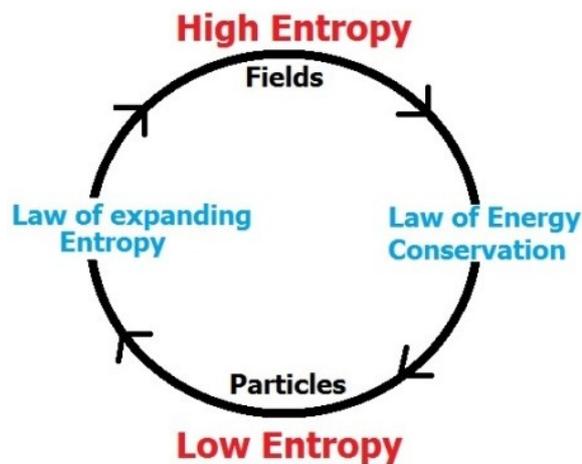
Quantum theory claims that the external world is made out of energy fields. Energy fields are difficult to grasp, since we have no direct knowledge of their existence. We can only feel their existence and measure them with the help of our instruments. Energy is defined as being a capacity for doing work. But where does that capacity reside? Does it reside inside all objects or is it a pure human construct? I see it as a practical tool for defining and calculating interactions. But this practical tool is the base of reality. All energy fields are subject to two fundamental laws. These are: The law of Energy Conservation and the law of Expanding Entropy. The law of Energy conservation creates local objects and reduces Entropy. But local energy concentrations cannot exist forever. The law of expanding Entropy prevents this. These two laws apply at all levels, both at the micro as well as at the macro level. They follow each other. They are not in opposition, but are cyclic and complementary. In the drawing below we see how these two fundamental laws of nature complement and follow each other.

All that exists as a local energy concentration for a finite lapse of time and has to disintegrate when that time expires; in accordance with the law of Expanding Entropy. Particles are local energy concentrations and can exist as a requirement of the law of Energy Conservation. But these local energy

concentrations are dispersed after a given time duration; because the law of expanding Entropy is another fundamental law of nature. This is the cycle of life. So, if we accept that fields are more fundamental than particles, we can say that what appears as particles, or as 'bits', are practical constructs of our mind and are essential tool for our existence. In other words, humans and all living entities, which can be defined as 'it', are creators of 'bit'. Thus the correct aphorism should be "**Bit from It**". So, if we accept that fields are more fundamental than particles, we can say that what appears as particles, or as 'bits', are practical constructs of our mind and are essential tool for our existence. In other words, humans and all living entities, which can be defined as 'it', are creators of 'bit'. Thus the correct aphorism should be "**Bit from It**".

References:

[1]



<http://www.halukberkmen.net/pdf/324.pdf>

[2] <http://www.halukberkmen.net/pdf/324.pdf>