

Mathematical Foundations of Biopsychology - Part III

by Dr. Hans-Joachim Rudolph (MD), Microvita Research e.V.

So we get two systems,

an activated neuronal assembly $A_n = (Q_1, Q_2, \dots Q_n)_v^D$,

and

a set of synchronized microvita $\mathfrak{a}_m = (\mathfrak{a}_1, \mathfrak{a}_2, \dots \mathfrak{a}_m)_{N/T}^T$.

Being connected by bosonic quasiparticles (Q_r), produced and annihilated by the involved microvita, they should be able to influence a neuronal assembly via the quantum Zeno effect, so that the duration ($t = T$) of the synchronized state of microvita approximates the duration (D) of the activated state of the neuronal assembly (if $\tau_z > 0,35$ and $N_u > 100$ per unit time interval T_u).

In order to verify this hypothesis, a simple thought experiment can be performed: Imagine a person being obsessed by any one of the basic propensities listed in Part I (shame, envy, hatred or fear, to name but a few (1)) - conditions amounting to the overactivity of certain neuronal assemblies. Now, imagine the person to withdraw his or her attention from this propensity. Measure the time it takes for the propensity to subside. Then ask the person to focus again on that issue. Measure the time it takes to recur to the same condition. Repeat the procedure.

On the basis of these measurements, it should be possible to calculate a non-decay / survival probability $P^N(T)$ of the activated neuronal assembly. Next, we would need an estimate of the quasiparticle production and annihilation during observation ($\mu = N/T$). And then we could calculate the Zeno time factor (τ_z) related to this neuronal assembly by

$$P^N(T) = (1 - T^2 / N^2 \tau_z^2)^N$$

or with $T_u = 1$ (unit time interval)

$$P^{N_u}(T_u) = (1 - 1 / N_u^2 \tau_z^2)^{N_u} .$$

(1) Wikipedia contributors: [Vrittis of Tantric Chakras](#), Wikipedia, The Free Encyclopedia (04/2013)