

Building Mathematics via Theorem Windows

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Abstract

Quantum mechanical model with singularities triplets is considered. How life functions via mechanism which is built from what we call theorem windows we are trying to imagine and to model.

Key words: singularities, quantum mechanics, life, reference system of life

Introduction

Developing idea of mathematic as frame of reality (1) we introduce notion of theorem window. In (1) we developed idea of reference system of life: now we try to consider how what we call mathematics work, and for this we introduce notion of theorem window which consist from three singularities. For this we use models of Tipler (2).

Theorem windows: idea of the notion

Theorem window is singularity, but three singularities actually, alpha, omega and pi singularities accordingly for assumption settings for alpha, theorem assumption for omega, and pi for proof. They together comprise one singularity that we may call theorem window.

We think via theorem window. Each our notion is made via theorem window. Thus, language itself is machine for manipulating theorem windows. Meaning is produced in the process of forming theorem windows – each theorem window for each meaning.

Theorem window

We build theorem window as singularity consisting from three singularities. We use idea of Frank Tipler of cosmological singularity consisting from triplet of singularities (3).

Let theorem windows be four singularities, $\langle A, O, P, T \rangle$, where A or A-singularity is base singularity, O or O-singularity is end or target singularity, P or P-singularity is proof singularity, and T or T-singularity is the union of three previous singularities in one common singularity.

Meaning in language: how theorem window works

Word 'lion' matches notion of animal 'lion': let we have for this match theorem window T which produces meaning attribution to word 'lion' of notion 'lion'. Let T be $\langle \text{word 'lion'}$, notion 'lion', attribution of notion 'lion' to word 'lion', theorem window for word 'lion' \rangle :

We get theorem window $\langle w:\text{lion}; n:\text{lion}; n \rightarrow w:\text{lion}; t:\text{lion} \rangle$. This is only intentional scheme for what would be this theorem window. Technically developing method to recognize this type of theorem window would reveal either this simplest case would work or more complicate scheme should be elaborated.

Language ability of human beings is grounded fundamentally on theorem windows mechanism.

Thinking as sequencing of theorem windows

Thinking is theorem window sequencing mechanism by our brain system. Both cerebral hemispheres are working here, both left and right. Left is more responsible for distinction, but right – for hologram. Combination of both gives patterns of our thinking ability.

Life functionality via theorem windows

In two ways we would recognize life's functionality as theorem window. First, via seeing us world via life, via senses, functionalities from our reference system. It would be sensual window of life. Second, we are built in this functionality: on all levels of our physical anthropic anatomical existence we are built from theorem windows. Ancients new about this double cycle of capturing the world via our 'soul'. We may now replace word 'soul' with notion theorem window. We may distinctly discern both ways of our sensing world, via sensing in traditional sense, i.e., first order sensuality, and via sensing in us being produced via functionality granted for us to live, i.e. second order sensuality.

First order sensuality

First order sensuality are formed fro types of theorem windows in most trivial sense: for each type of sensual ability we have appropriate machanism of functionality via types of theorem windows, thus for each type of sensuality we have proper mechanism of working theorem windows mechanism. Say, for vision one, for tasting – another, for reasoning –

quite another. Where to put reasoning, in first or some other category, is question of further investigation.

Second order sensuality

Second order sensually, i.e., via which we are implemented by nature, is not trivial. Actually, traditional science does not recognize this types as sensuality at all. Term sensuality may be used here because nature as if is forced to feel us via resources of nature which we use to exercise our functionality. For nature they would be senses 'to build' life. For us they would mean means of existence in scopes of resources granted to us.

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