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The Biosphere as a Supercomputer Directing and Controlling Evolutionary Processes

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Abstract : The evolutionary processes are not linear. Long periods of quiet and slow development turn to rather rapid emergences of new species and even phyla. During Cambrian explosion, 22 new phyla were added to the previously existed 3 phyla. Contrary to the common credence the natural selection or a survival of the fittest cannot be accounted for the dominant evolution vector which is steady and accelerated advent of more complex and more intelligent living organisms. Neither Darwinism nor alternative concepts including panspermia and intelligent design propose a satisfactory solution for these phenomena. The proposed hypothesis offers a logical and plausible explanation of the evolutionary processes in general. It is based on two postulates: a) the Biosphere is a single living organism, all parts of which are interconnected, and b) the Biosphere acts as a giant biological supercomputer, storing and processing the information in digital and analog forms. Such supercomputer surpasses all human-made computers by many orders of magnitude. Living organisms are the product of intelligent creative action of the biosphere supercomputer. The biological evolution is driven by growing amount of information stored in the living organisms and increasing complexity of the biosphere as a single organism. Main evolutionary vector is not a survival of the fittest but an accelerated growth of the computational complexity of the living organisms. The following postulates may summarize the proposed hypothesis: biological evolution as a natural life origin and development is a reality. Evolution is a coordinated and controlled process. One of evolution's main development vectors is a growing computational complexity of the living organisms and the biosphere's intelligence. The intelligent matter which conducts and controls global evolution is a gigantic bio-computer combining all living organisms on Earth. The information is acting like a software stored in and controlled by the biosphere. Random mutations trigger this software, as is stipulated by Darwinian Evolution Theories, and it is further stimulated by the growing demand for the Biosphere's global memory storage and computational complexity. Greater memory volume requires a greater number and more intellectually advanced organisms for storing and handling it. More intricate organisms require the greater computational complexity of biosphere in order to keep control over the living world. This is an endless recursive endeavor with accelerated evolutionary dynamic. New species emerge when two conditions are met: a) crucial environmental changes occur and/or global memory storage volume comes to its limit and b) biosphere computational complexity reaches critical mass capable of producing more advanced creatures. The hypothesis presented here is a naturalistic concept of life creation and evolution. The hypothesis logically resolves many puzzling problems with the current state evolution theory such as speciation, as a result of GM purposeful design, evolution development vector, as a need for growing global intelligence, punctuated equilibrium, happening when two above conditions a) and b) are met, the Cambrian explosion, mass extinctions, happening when more intelligent species should replace outdated creatures.

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