

Intelligent Design:

A Quantum Information Biology Perspective



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Summary:

Ordinary physics being unable to specify an intelligent guiding principle to account for the apparent life's intelligent design, some of the intelligent design movement advocates propose a metaphysical intelligent designer. Elsheikh^{1-2,3}, founder of quantum information biology (QIB), demonstrates the existence of an intelligent guiding principle of physical nature.

Keywords

Intelligent design, maximum action principle, least action principle, bioinformation, DNA

Ordinary physics being unable to specify an intelligent guiding principle to account for the apparent life's intelligent design, some of the intelligent design movement's advocates propose a metaphysical intelligent designer. In this regard, although intelligent design movement starts from a valid scientific premise it ends up with a metaphysical inference that cannot be empirically falsified. Thus it undermines its scientific credibility. Elsheikh^{1-2,3}, founder of quantum information biology (QIB), demonstrates the existence of an intelligent guiding principle of physical nature. To do so he proposes broadening the ontological foundation of contemporary physical theory, by revealing what physically distinguishes life from nonlife, and discovering the maximum action principle. According to the maximum action principle a biosystem's rate of change of action is proportional to its bioinformation, as it traverses a path of maximum action. Bioinformation which is a measure of developmental functional complexity and bioinformation oscillations is what distinguishes life from nonlife. The maximum action principle is the intelligent guiding principle which accounts for biotic evolution and development.

Thus QIB responds to intelligent design movement's basic challenge to naturalists" Where does information come from in the first place and secondly how could it increase over time?"⁴ It is difficult to respond to this challenge on the basis of ordinary physics because two fundamental attributes of biosystems have been missed. These are the existence of maximum action principle, and existence of a geometry that embodies or actualizes the maximum action principle. DNA helical and golden ratio based dodecahedron fractal geometry⁵⁻⁶ is the only geometry in the universe that embodies or accommodates the maximum action principle. Hence the DNA becomes a quantum information fractal field (QIFF), i.e., a nested hierarchy of paths of maximum action and maximum bioinformation. The QIFF generates in addition to weak EM vibrations self-sustained bioinformation oscillations. While the bioinformation oscillations contain the dynamical essence of biosystems, the emitted EM waves carry a signature or spectro-bioinformation that designates a DNA bioinformation template. Different bioinformation attractors which represent different quantum information stationary functional states are represented by different bioinformation templates. If nature did not have the maximum action principle, there would be no life, no biotic evolution and development, and no intelligence. Without the maximum action principle physics will remain forever blind to comprehend life phenomenon.

Thus the physical origin of bioinformation resides in the union of DNA golden ratio based fractal geometry and the maximum action principle. On the other hand by correlating the rate of change of action (energy) and bioinformation, the maximum action principle identifies how bioinformation increases. However, it is important to note that biosystems fundamental dynamics take place in the bioinformation space, i.e., along the time domain.

Probably some physicists may worry about the fate of the least action principle. In fact the maximum action principle does not violate the least action principle. The situation is similar to the relationship between relativity or quantum mechanics and classical mechanics, relativity does not violate classical mechanics rather it covers a domain which is beyond the domain of validity of classical mechanics. And since the new domain of relativity is more general, it contains the laws of classical mechanics as special case. It is same with the maximum action principle which operates beyond the domain of the least action principle, and contains the least action principle as special case, i.e., when a biosystem dies and becomes inanimate. More important we, as scientists, must stick to empirical evidence as it is clear a biosystem, ontogenetically as well as phylogenetically, traces a path of maximum action and maximum bioinformation. i.e., maximization of total vitality.

Finally, mathematically speaking, maximization of total vitality that is product of a biosystem's genome physical information, total action and lifetime being life's target criterion or goal function demonstrates the accomplishment of intelligent design on naturalistic and mechanistic basis.

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