

Abstract Submitted
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Quantum entanglement and informational activities of biomolecules HANAN AL-SHARGI, SIMON BERKOVICH, The George Washington University — Our model of holographic Universe [1] explains the surprising property of quantum entanglement and reveals its biological implications. The suggested holographic mechanism handles 2D slices of the physical world as a whole. Fitting this simple holistic process in the Procrustean bed of individual particles interactions leads to intricacies of quantum theory with an unintelligible protrusion of distant correlations. Holographic medium imposes dependence of quantum effects on absolute positioning. Testing this prediction for a non-exponential radioactive decay could resolutely point to outside “memory.” The essence of Life is in the sophistication of macromolecules. Distinctions in biological information processing of nucleotides in DNA and amino acids in proteins are related to entropies of their structures. Randomness of genetic configurations as exposed by their maximal entropy is characteristic of passive identification rather than active storage functionality. Structural redundancy of proteins shows their operability, of which different foldings of prions is most indicative. Folding of one prion can reshape another prion without a direct contact appearing like “quantum entanglement,” or “teleportation.” Testing the surmised influence of absolute orientation on the prion reshaping can uncover the latency effects in the “mad cow” disease. 1. Simon Berkovich, TR-GWU-CS-07-006, <http://www.cs.gwu.edu/research/reports.php>

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