Experimental Evidence of Nonlocal Gravitational Effect & Nature of Gravity

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Dated: June 19, 2019

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We first report here our experimental findings of non-local gravitational, chemical and thermal effects in water discovered back in 2006 [1]. We found that the weight of water in a detecting reservoir quantum-entangled with water in a remote reservoir can change against the gravity of its local environment when the latter was remotely manipulated (such as extreme cooling or heating). We also found that the temperature of water in a detecting reservoir quantum-entangled with water in a remote reservoir can change against the temperature of its local environment when the latter is manipulated (such as extreme cooling or heating or addition of heat-generating and/or property-changing chemical) under the condition that the water in the detecting reservoir is able to exchange energy with its local environment. We further found that the pH value of water in a detecting reservoir quantum-entangled with water in a remote reservoir changes in the same direction as that in the remote water when the latter is manipulated (such as extreme cooling or heating or addition of acidic or alkaline chemical) as if H+ in the latter is directly available to water in the detecting reservoir, under the condition that the detecting reserve is able to exchange energy with its local environment. Therefore, among other things we realized non-local signaling using three different physical observables – gravity, temperature and pH value. The most shocking was our experimental demonstration of Newton's instantaneous gravity and Mach's instantaneous connection conjecture and the relationship between gravity and quantum entanglement. Our findings also imply that the properties of all matters can be affected non-locally through quantum entanglement mediated processes. However, we caution that, as with many other experimental findings, independent replications are the key to verify our results. Therefore, we urge all interested scientists and the like to do their own experiments to verify and extend our findings. So far, the experimental results of Persinger's Group [2] support our findings.

We will also explore the natures of quantum gravity and graviton from the non-mainstream perspectives [3]. It turns out that quantum gravity is likely manifestation of quantum entanglement and mediated by wave-functions of elementary particles as nonlocal objects. Thus, each elementary particle has its corresponding gravitons comprised of its external and internal wave-functions as nonlocal objects. This new understanding may allow one to reconcile quantum mechanics with general relativity and explain dark matter and dark energy as nonlocal effects on the cosmic scales. To make the transition from quantum gravity to general relativity, it is theorized that: (1) Ricci scalar R and metric tensor $g_{\mu\nu}$ are originated from and determined by the collective internal and external wave functions of the matter present; (2) in the absence of nonlocal effect of remote matter through quantum entanglement, R and $g_{\mu\nu}$ are only correlated to momentum-energy tensor of the local matter; (3) in the presence of nonlocal effect of remote matter through quantum entanglement, R and $g_{\mu\nu}$ are also influenced by the nonlocal effect of the remote matter currently interpreted (or seen) as dark matter and/or dark energy. One of the important consequences of this conjecture is that gravitons, as nonlocal objects comprised of internal and external wave functions, may not carry localized or directly detectable momentum and energy.

1. Hu, H. & Wu, M. (2006), *Evidence of non-local physical, chemical and biological effects supports quantum brain*. NeuroQuantology 4: pp. 291-306. Also see Progress in Physics 2007a; v2: 17-24.
2. Scott, M. A. *et. al.*, *Experimental Production of Excess Correlation across the Atlantic Ocean of Right Hemispheric Theta-Gamma Power between Subject Pairs Sharing Circumcerebral Rotating Magnetic Fields*. Journal of Consciousness Exploration & Research 6(9): pp. 658-707.
3. Hu, H. & Wu, M. (2013), *What Is Quantum Gravity? What Is Graviton?*. Prespacetime Journal 4 (11): pp. 1003-1026.