

# Creationists Should Not Accept Quantum Mechanics

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*The following letter was first submitted as a Letter to the Editor of the Journal of Creation by Charles W. Lucas, Jr., B.S., M.S., Ph.D. Theoretical Physics, regarding the article "Should Creationists Accept Quantum Mechanics?" by Jonathan Sarfati published in the Journal of Creation November 25, 2011. But the Journal of Creation decided not to publish the critique offered by Dr. Lucas on their web site, disappointing some prominent creationists who believe that creationists should not accept quantum mechanics. Due to several requests, the Lucas Letter to the Editor is being published here.—Editor*

**Letter to the Editor.** The politically correct Copenhagen version of quantum wave mechanics by Heisenberg and Bohr was developed as a theory just like Maxwell's electrodynamics, Einstein's relativity theory, and Darwin's evolution theory during the time of the dominance of existential philosophy in science. Under the existential philosophy, scientific theories are based on idealizations and appearances, rather than reality. These theories above do not take exception to the dominant existential philosophy. This is a crucial and central issue for Christians.

For example, evolution theory was based more on the external appearance of plants and animals than on the internal body structures, body chemistry and DNA. Subsequent investigations and experiments involving body structures, chemistry and DNA have called into question the evolutionary sequence for animals. The notion that all species evolve from the early forms of life in the sea is not supported by the evidence. Evolution within the "kinds" of animals in scripture is supported.

For electrodynamics, quantum mechanics, and relativity theory, a central idealization was (and continues to be) the point-particle idealization for elementary particles. Planck's blackbody radiation law for a collection of oscillators at the same temperature was described by quantum mechanics using idealized point particle oscillators with quantized energy states defined by 'energy being proportional to frequency' i.e.,  $\mathcal{E} = h\nu$ . According to Heisenberg, "Reality is in the observation process, not in the structure of the electron or the atom." The universal wave-function of quantum mechanics describes these ideal particles and oscillators as governed 100% by random statistical processes. Thus in the quantum mechanical universe, it is not possible to determine that action A caused result B. In other words, there is no 'law of cause and effect' in quantum mechanics. Keep in

mind that these idealizations have become what the physics community considers to be **physical reality**. The electron is said to be a point-particle of zero extent rather than “it can be treated or approximated as a point-particle in certain situations.” *Is this idealized existential universe acceptable to Christians and compatible with the Word of God?*

Quantum mechanics describes a universe created by a quantum fluctuation called the Big Bang, not God. Quantum mechanics also describes, via the universal wave-function, a universe governed 100% by random statistical processes, not God with a plan for the universe. It describes a universe with no law of cause and effect. Transferring these physical concepts to the rest of reality — ethics, morality and philosophical world views, as many freely do — the logical conclusion of quantum mechanics suggests that there is no possibility of sin with subsequent consequences and no need for a savior. *Is quantum mechanics true, and is it the only credible explanation for physical reality?*

One of the key experiments supporting quantum mechanics was the photoelectric effect on crystalline metals like sodium. At first the experiment was interpreted that light particles or photons of a sufficiently high energy to eject an electron from the metal atom were absorbed by an electron of a metal atom such that the electron was ejected from the surface atoms of the metal plate. However, when the experiment was performed with the same metal but in an amorphous state (no crystals) the photoelectric effect was greatly diminished and at a very different energy. Then in 2011 electrical engineers working on microscopic optical circuits for computers found that atoms and crystals absorb light energy like miniature antenna arrays (see Figure 1). Thus the initial interpretation of the photoelectric effect in terms of photons was premature and mistaken.<sup>1</sup> In Figure 1 below one sees the photoelectric effect for three nanometer size optical antenna arrays. The photoelectric effect occurs on only two of the three antenna arrays and much more strongly on one than the other due to the wavelength of the light. According to quantum mechanics, the photoelectric effect should occur equally on all three antennas, if it is due to photons being absorbed on individual surface atoms as Einstein claimed.

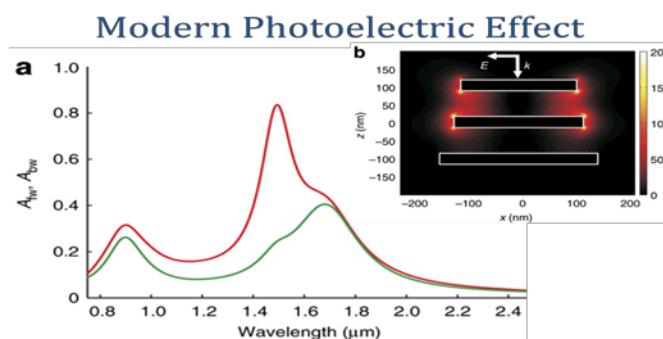


Figure 1. Absorption of Light on Optical Antenna Array<sup>1</sup>

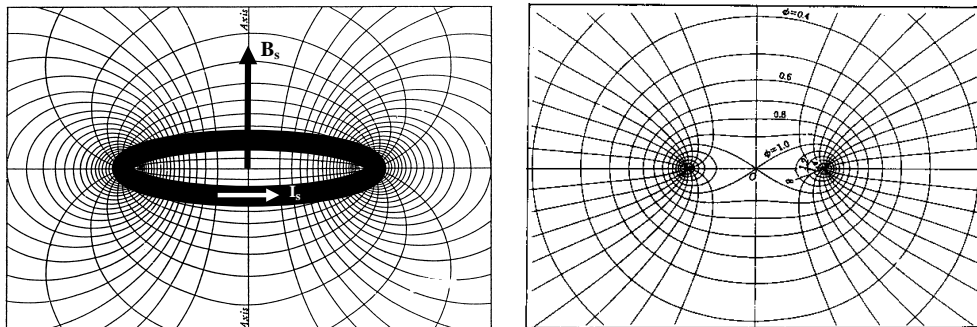
Many secular natural philosophers rebelled against the existential philosophy based on idealizations instead of reality and introduced the structural philosophy starting in the 1930s. Structuralism was developed by the Bourbaki (a secret society of French

mathematicians) using some new structural ideas from linguistics.<sup>2,3,4</sup> According to this philosophy

1. **Every system has a structure.**
2. **There are laws responsible for the structure of systems.**
3. **There are unique elements that make up systems.**
4. **Meaning is derived from the structure of systems.**

The elements making up any particular system which exemplify the structure are based on axioms which comprise the barest set of first principles. The theorems of mathematics or the theories of science are obtained by the rigorous application of logic to these axioms in a manner similar to the way proofs of theorems are done in Euclidean geometry. There are underlying structures in science and mathematics, and the relationship of these structures is the source of meaning and reality that was missing in existential mathematics and science.

Members of the Bourbaki worked with researchers in many fields and applied structuralism to their studies. In the areas of linguistics<sup>5</sup>, literary theory<sup>6</sup>, psychology<sup>7</sup>, anthropology<sup>8,9</sup>, economics<sup>10</sup>, architecture, and mathematics<sup>2,3,4</sup>, the Bourbaki were able to help researchers move their study from a descriptive phase to one based on mathematical symbols and mathematical equations with laws and theories derived by rigorous logic from a minimum set of axioms. Many of these researchers won Nobel prizes for their work.



**Figure 2.**

**Left. Physical Spinning Charge Loop for Electron Showing Direction of Current  $I_s$  and Magnetic Field  $B_s$ .**

**Right. Electric Field and Force Lines Outside the Charged Ring.**

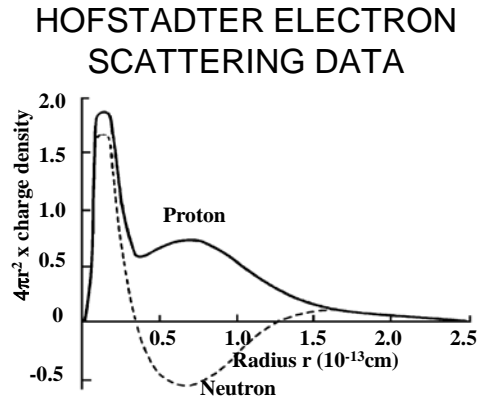
Thomas L. Barnes, Ph.D. Physics, one of the founders and early presidents of the Creation Research Society, one of the founders of the Institute for Creation Research along with Henry Morris, and the first Dean of Christian Heritage College associated with the Institute for Creation Research, started physics research in electrodynamics based on using the finite-size structures of elementary particles to replace relativity

theory and quantum mechanics.<sup>11,12,13</sup> Over the last 34 years his followers have perfected this classical electrodynamics approach for finite size particles (see Figure 2). This new approach now explains more experimental data in a logically superior way compared to Maxwell's electrodynamics as extended by Einstein's special relativity theory and the Copenhagen version of quantum mechanics as developed by Heisenberg.

Using finite-size spinning charge ring closed-string type structures for elementary particles shaped by a balance of electric and magnetic forces in accordance with combinatorial geometry, the followers of Barnes have produced a rigorous derivation of the Planck blackbody radiation law based entirely upon an improved version of classical electrodynamics for finite size elementary particles.<sup>15</sup> For Christians, this real physical structure for charged particles is more aligned with Biblical principles (e.g., cause and effect) than an idealized fictitious point-particle oscillator explanation based upon statistically random processes.

This spinning charge ring structure has a physical wavelength associated with the length of the standing waves in the charge ring—just as in a radio broadcast antenna. This is known as the Compton wavelength. Electrons and other charged particles used in the double slit interference experiments exhibit wave-like characteristics associated with the circumference of the charge ring. As the electron is accelerated to higher velocities, the balance of electric and magnetic forces in the ring causes the physical size and wavelength of the ring to decrease (compress). This electrical feedback effect on finite-size charge rings is the actual physical cause of relativistic type effects.

The Bible says (I Timothy 3:15) that the Christian church is to be “the pillar and ground of the truth”. Thus Christians need to be careful about accepting ideas incompatible with the Bible. Ideas based on relativism or idealized abstractions as reality versus absolutes and physical structures are inconsistent with Biblical principles that emphasize physical and moral laws as the foundation of reality. Christians need to be aware of the significant scientific evidence that is accumulating against long-held popular theories of man. The point-particle idealizations of Maxwell's electrodynamics and its extensions known as relativity theory and quantum mechanics are false according to scattering experiments.<sup>16</sup> All observed massive elementary particles have both a finite size and some internal physical charge structure. Furthermore Christians must question the acceptance of quantum mechanics, relativity theory, and Maxwell's equations much more strongly in these days. This is due to the development by Christians of a superior version of electrodynamics<sup>15, 17-24</sup> based on a more perfect union of the axiomatic method with the empirical scientific method. This version of electrodynamics is being successfully promoted in the secular scientific community as the universal force. Christians should seriously investigate the physical approach of the structural model, and the weaknesses of current popular theories of modern science, to determine which more closely match both reality and the Scriptures.



**Figure 3. Electron Scattering Data Showing the Proton and Neutron Internal Structure and Finite Size<sup>16</sup>**

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