# On the value of David Bohm's Quantum Mechanics or Consistent Faith of a Physicist: God's Grace within Physics

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# Abstract

Without forcing to accept my points, I present the glim of my consistent faith to the scientific community of orthodox believers. Because I stay within the dogmas of the Orthodox Christian Church, I suggest to read the text without criticism. It is simply the beautiful and meaningful picture of my personal world. Please enjoy it.

PACS numbers:

#### I. INTRODUCTION

In 2014, the Templeton prize winner John Polkinghorne wrote: "In the second half of the eighteenth century, the deterministic character of Newton's equations encouraged many people to see the physical world in strictly mechanical terms, as if the universe is a gigantic piece of cosmic clockwork." [1]

Such a constrained view comes from the belief that the energy and momentum are always conserved. It means that if I pull the door, the reaction of the door pulls me. Thus, our opposite momentums extinguish each other. When I have pulled the door, I have used a bit of food in my stomach. Therefore, the kinetic energy of the accelerated door came from my food: nothing is lost, nothing is gained. But what if the invisible God does some job? What if an angel pulls the door for us? Can a divine be source of energy and momentum, or latters are being simply created out of nothing? Because energy and momentum are material essence when they are being created. Thus the system of God, angels, matter and us is not closed. Therefore, the law of decay (the grow of entropy [2]) is not taken the place. It is the eternal life with care of our Lord. And they will eat from the Tree of Life.

To describe some (but not all) actions of God within the Newtonian formalism, one simply adds a non-material force f to his second law: ma = F + f (vector arrows are omitted). Another kind of action is materialization and de-materialization (Jesus came to them while doors were closed). The latter violates Einstein's General Relativity. Therefore, the additional non-material terms X should be added to Einstein's equations:  $G + X = 8\pi T$  (tensor indices are omitted). In Ref. [3] these entities are identified as Dark Matter and Dark Energy (the incomplete text is in Ref. [4] free of charge).

### II. QUANTUM MECHANICS

Quantum Mechanics as interpreted by Niels Bohr is not complete. First: Schrödinger's equation contains only a single parameter U for describing the forces acting on the particle. However, there shall be three functions for general forces (for example the magnetic force  $v \times B$  has three independent components) which are not expressible by a potential U, i.e.  $F + f \neq -\text{grad } U$ . Second: an individual test, the single hit of the particle onto a screen, is not subject to statistics. Therefore, even knowing the wave-function, the individual

results are out of our (statistical) theory. It is "Unpredictability" as Polkinghorne calls it [1]. In other words: a particle is not a wave, but a group of particles has statistical properties resembling a wave. Thus, within this logical anti-nihilistic approach the wave–particle dualism is simply solved.

Polkinghorne: "Unpredictability can be due to two quite different reasons. One would be an actual degree of intrinsic indeterminism present in nature, such as that which is supposed in Niels Bohr's Copenhagen interpretation of quantum theory [see Martila's criticism against the wrong understanding of the Heisenberg's uncertainty principle [5]]. The other possibility would be that unpredictability is simply the result of a necessary ignorance, arising from an intrinsic inaccessibility preventing us from gaining knowledge of all the detailed factors which in fact actually fully determine what is happening. David Bohm's deterministic interpretation of quantum theory has this character due to the presence of "hidden wave" which influences the behaviour of particles. The fact that the theories of both Bohr and Bohm, though radically so different in character, yield the same empirical consequences shows that the choice between them cannot be made simply on purely physical grounds but it requires an act of metaphysical judgement." [1]

An experimentalists' papers appeared in "Nature" in 2015 telling that Nature does not exist and that the David Bohm was wrong [6]. This is like a self-destructive irony: to (wrongly) prove "No Nature" in a journal called "Nature". Speaking about nihilism, the most grim picture is found in the interpretation of Quantum Mechanics by Niels Bohr. The 2015 paper in the renown journal "Nature" "proved" that Schrödinger's Cat is real. Thus, the world does not exist: a thing can not both be and not be, see Fig. 1.

It is very convenient nowadays that even if a grain of sand is crazy hallucination (like the "proven reality" of the undead cat), this non-existent grain needs no divine (loved, but more often hated) Creator. The reason of delusion is that the convention has missed an intelligent factors, e.g. evil spirits, which very often act on the measuring device (recall the wrong alarms in nuclear armed forces). Bohr's interpretation tells: there is no nature, until you look at it. But how can I look at nature if there is no nature in the first place? Such problems do not appear if paying respect to David Bohm's theory [7].



FIG. 1: The Schrödinger's Cat was designed in 1935 to reverse Bohr's thinking, not to progress it.

## III. GENERAL RELATIVITY

Bohr's interpretation has run into incompatibility also with General Relativity [8]. A paradox discovered by Cooperstock shows that the interpretation of a photon as a wave (a probability wave in Bohr's interpretation) and Einstein's equations are incompatible [9] (see also Ref. [10]). The photon is a particle in God's care and not a casual wave!

The double-slit experiment convincingly shows that there is a non-mechanical connection between the behavior of the experimentalist and the behavior of the physical system: there is no fundamental interaction in physics which would change the picture in the impact screen [11]. Therefore, there is freewill action in the laboratory. This surely explains the violation of Bell's inequalities in some of the experiments.

#### IV. EPILOGUE: REJECTION BY JOC

Hello, a very kind and friendly Christian. Please read the file attached and quickly tell me, will it be published or not. Is it at least readable? If not, then tell me: I try to correct the English and sent you file again.

Dear Dimitri, Thank you for your submission. We have looked through it and unfortunately it is not suitable for publication in Journal of Creation. A prerequisite of JoC submissions is that they must interact with current creationist and secular research in the area, and also acknowledge and reference previous work. Kind regards, Pierre.

Hello, dear Pierre, who is serving us Christians like the last slave. The only problem with my beautiful paper is wrong presentation. But the idea is good and fully acceptable. So, can you connect me with Creational Scientist, who would collaborate with me for pleasing the style of your journal? Be well, Dmitri.

- [1] John Polkinghorne FRS, "Physics and Theology", Europhysics News 45 (2014) 28
- [2] Dmitri Martila, "Entropy of Real Pendulum", viXra:1311.0045 (2013)
- [3] Dmitri Martila, "Simplest Explanation of Dark Matter and Dark Energy",LAP LAMBERT, ISBN 978-3-659-50275-0 (2013)
- [4] Dmitri Martila, "Three Ethers of Einstein", viXra:1305.0131 (2013)
- [5] Dmitri Martila, "Collection of Arguments Vs. Niels Bohr's Destruction of Reality", viXra:1407.0035 (2014)
- [6] M. Ringbauer et al., "Measurements on the reality of the wavefunction", Nature Physics (2015): "Wave function gets real in quantum experiment" in newscientist.com; "Simultaneous observation of the quantization and the interference pattern of a plasmonic near-field." Nature Communications 02 March 2015; "First photograph of light as both a particle and wave" (physicsforums.com, Phys.org)
- [7] Basil Hiley, "David Bohm Quantum theory versus Copenhagen Interpretation", YouTube
- [8] Michio Kaku, "The Collapse Of Physics As We Know it": YouTube, mail.ru
- [9] F.I. Cooperstock, "Energy localization in general relativity: A new hypothesis", Foundations of Physics **22** (1992) 1011

- [10] Dmitri Martila, "Can Niels Bohr's Philosophy be Wrong?", viXra:1409.0177 (2014)
- [11] "The Double Slit", Martila in mail.ru;
  Thomas Campbell, "Explained! The Double Slit Experiment", YouTube