

Faith in the Unseen from the Modern Perspective of Quantum Physics

Azeez Abdullah Barzinjy^{1,2}

¹*Scientific Research center, Soran University, Kurdistan Region, Iraq*

²*Department of Physics Education, Faculty of Education, Tishk International University, Erbil, Iraq*

*Correspondence: azeez.azeez@soran.edu.iq

ORCID: <https://orcid.org/0000-0003-4009-9845>

Bio

Azeez Abdullah Barzinjy is a professor of physics and materials science at Soran University in the Kurdistan Region of Iraq, with research expertise in nanomaterials. He earned a B.Sc. in Physics and an M.Sc. in Superconductivity from Salahaddin University-Erbil, a second M.Sc. in Theoretical Physics from Old Dominion University, and a Ph.D. in Materials Science from the University of Leicester. His research spans nanomaterials, green synthesis, solar-cell materials, quantum dots, environmental nanotechnology, and related areas of applied physics and materials science. He has published extensively in peer-reviewed journals and has served as a speaker and participant in numerous scientific conferences.

Abstract

Unseen is an essential component of the Muslim faith as mentioned in many verses in Qur'an and many Hadiths. Thus, the significance of having faith is to believe in something unseen. Accordingly, a belief in nothingness is simply a rejection of the belief in the unseen. It should be recalled here that Allah (S.W.T), Who has the full knowledge of the worlds of the seen and the unseen, has guaranteed the true believers great rewards. Allah (S.W.T) says: Indeed, those who fear their Lord Unseen will have forgiveness and great reward (Al-Mulk, 12).

Scientists believe that the accurate image of the real ingredient can never be entirely understood in this physical Universe since humans are limited by their physical apparatuses. Hence, there must be other states, but humans have no apparatus to observe and understand them. What exactly does the unseen mean?

Quantum physics, which had its bases at the beginning of the 20th century, is an extremely dedicated pattern of science, which unlike Newtonian physics investigates and clarifies how the whole thing in the visible world comes into being. It is fundamentally studying the nature of physical existence beginning at the subatomic, unseen, level. Additionally, quantum physics divides nature into two parts; on one side of the partition there is the observed system whereas there is the observer on the other side. One difficulty is where you place the isolating line, which relies upon who is doing the observation? More topical findings in quantum physics are rapidly mutating the world in an exceedingly extraordinary and optimistic manner.

Unlike classical physics, awareness crosses the threshold of quantum theory and circumstance at the onset. Thus, there is no way to interpret quantum theory without in some way addressing awareness. Unambiguously, awareness takes an obvious and strong role.

Otherwise stated, it is avoided by presenting the concept of hidden variables. They, generally, start with the assumption that the physical world should be dealt with unaccompanied by the human observer. The Many Worlds interpretation, consistently, is vital to quantum interpretations since it brings about the ultimate observer outside of space and time. This has obvious theistic implications; therefore, the theologians have not been very keen to attribute to Allah (S.W.T) the role of ultimate observer who brings the whole quantum Universe into being. Arguably, there are parallel Universes mentioned within the Qur'an that one does not have access to. These worlds are widely talked about within the Qur'an, the world of the unseen and seen, Allah (S.W.T) says in surah Al-Ra'd:9; "All-Knower of the unseen and the seen, the Greatest, the Highest". Accordingly, believe in the Ghaib: literally means a thing not Seen.

This investigation, with the aim of redirecting the focus of the scientists, emphasized that there are no discrepancies between some of Quantum physics' interpretation and the belief in the unseen. Therefore, the systematic analysis posed by the authors in this study, through three Qur'anic examples, namely, Moses and Al- Khidr, Joseph (P.U.H) and regaining sight for Jacob (P.U.H) and Prophet Solomon's death and the Jinns, attempt to analyze these apparently manifold subjects, with the purpose of analyzing the Qur'anic concepts and universalizing the perceptions of quantum physics.

1. Introduction

As the model of the atom, quantum mechanics is possibly the ultimate effective model in the history of science. It allows scientists to compute and predict the consequence of a massive number of researches and to generate new and progressive knowledge based on the vision into the behavior of atomic objects. Nonetheless, it is similarly a model that challenges facing our thoughts. It seems to disrupt some essential principles of classical physics, principles that finally have become a piece of communal sense since the rise of the modern worldview in the revitalization. The purpose of whichever philosophical interpretation of quantum mechanics is to explain these infringements.

As emphasized by Bohr [1], quantum mechanics, as framed by Heisenberg, was a coherent broad view of classical mechanics when the quantum of action and the spin property were taken into consideration. Later, both Heisenberg and Bohr began their conflict to find an intelligible understanding for the mathematical form. Heisenberg and Bohr followed rather varied methods. Where Heisenberg looked to the formalism and sophisticated his well-known uncertainty principle [2] or indeterminacy relationship, as the accuracy of our measurement of one of the pair (*i.e.*, momentum) approaches perfection, our information of the other of the pair (*i.e.*, position) approaches zero. Many people have found this to be a shocking statement. Einstein, for one, not only found it shocking but also tried to disprove it, saying to Bohr one of in his numerous discussions with him that God does not play dice with the universe, [3].

Bohr selected analyzing existing experimental arrangements, particularly the double-slit experiment.[4] Moreover, Bohr finally recognized that the ascription of kinematic and dynamic properties to an object is harmonizing since the attribution of both of these conjugate variables breaks on equally special experiments. The revolution of the quantization of action meant that quantum mechanics could not achieve the above ideologies of classical physics. Until the mid-1930s once Einstein, Podolsky and Rosen (EPR) announced their distinguished intellectual-experiment with the aim of displaying that quantum mechanics was not complete, [5]. After the EPR paper Bohr recognizes the Heisenberg's uncertainty principle as an indicator

for the ontological concerns of his statement that kinematic and dynamic variables are indistinct without referring back to an experimental conclusion. Thus, according to Bohr the understanding of a physical theory has to depend on an experimental practice. It makes much sense to describe Bohr in modern expressions as an entity pragmatist who opposes theory realism, [6]. Therefore Bohr was an anti-realist or an instrumentalist once it came to principles. After Schrodinger [7] announced his famous equation, Bohr assumed that the wave function in Schrodinger equation has only a representative meaning and does not signify anything real. On the other hand, he accepted Max Born's statistical interpretation [8] about the probability. According to Bohr it is logically accepted to talk about a collapse of the wave function only if, as Bohr put it, the wave function can be given a symbolic demonstration, something he intensely rejected.

In fact, Bohr, Heisenberg and many other physicists were well supported to be part of a rational understanding of the quantum world. They believed that it provided us with the sympathy of atomic phenomena in agreement with the circumstances for any physical explanation and the promising unbiased information of the world. Bohr thought that atoms are real, but it remains a much discussed point in novel literature what kind of reality he thought them to possess, whether or not they are something out there and dissimilar from what they are perceived to be.

Quantum systems are not envisageable since their states cannot be traced down in space and time as can classical systems. The reason is, as stated by Bohr, that a quantum system has no certain kinematical or dynamical form before any measurement. Likewise, the statement that the mathematical formulation of quantum states contains of imaginary numbers conveys that the state vector is not liable to a graphical interpretation, [9].

While Bohr maintained the usage of classical thoughts for accepting quantum phenomena, he did not trust, as it is occasionally recommended, that macroscopic objects or the computing apparatus always have to be labeled in terms of the dynamical laws of classical physics. The usage of the classical thoughts is essential, as stated by Bohr, since by these we have learned to join to others about our physical understanding. The classical thoughts are simply a modification of ordinary thoughts of position and action in space and time. Nevertheless, the usage of the classical thoughts is not the same in quantum mechanics as in classical physics. Bohr was well aware of the statement that, on cautions of unpredictability, the classical concepts have to be specified before they could be engaged to define quantum phenomena, [10].

Thus, the Copenhagen clarification, formulated at the 5th Solvay Conference of 1927, is not a standardized interpretation. This vision has started to arise among historians and philosophers of science over the last ten to fifteen years, [11]. Thus, when Bohr rather soon afterward initiated analyzing the double slit experiment in his discussion with Einstein (1930), he had to spread his clarification to cover the electron in interaction with the computing devices. Gomatam [12] stated that Bohr's clarification of complementarity and the textbook Copenhagen clarification, *i.e.* wave-particle duality and wave packet collapse, are mismatched. In recent times, Henderson [13] has come to an analogous decision. Henderson [13] stated that Bohr did not think of quantum measurement in terms of a collapse of the wave function. However, Heisenberg sees the collapse of the wave function as an unbiased physical process that could not be studied.

Thus, since everything is organized by atomic and subatomic particles, we might describe quantum fundamentalism to be the position holding that everything in the world is basically

quantized and that the quantum theory gives us an accurate explanation of this nature. Therefore, the basic statement behind quantum fundamentalism is that the construction of the formalism, in this circumstance the wave function, is associated to how the world is arranged. For example, based on the wave function explanation, every quantum system may be in a superposition of different states, [14]. Quantum fundamentalists need to be ready to clarify why the macroscopic world seems classical. An alternative to Neumann's suggestion is the many world interpretation which demands that the formalism must be recited accurately and that measurements, classical consequences, do not refer to the world as it really is, [15].

In one clarification, the world splits into countless worlds as there are promising measurement results each time a system is observed or interrelates with another system, [16]. Conversely, the intent of quantum fundamentalism appears to cancel Bohr's claim that classical concepts are required for the explanation of measurements in quantum mechanics. The significance would be that the device and the object exist in a certain quantum state; meanwhile such a state could be characterized as a product of the wave function for the device and for the object. Thus, after the 1950s the Copenhagen interpretation started to lose ground to other interpretations such as Bohm's [17] interpretation and the many worlds interpretation. However, several philosophers of science have inspired Bohr's vision on complementarity. Neorealism is typically related to the work of David Bohm [17], an ontological clarification that eliminates the customary collapse of the wave function and offers a clear appearance of the characteristic nonlocal nature of quantum mechanics. Bohm's interpretation describes the uncertainty principle in terms of irregular nonlocal impacts, possibly from distant parts of the universe.

In 1957, Hugh Everett criticized both the Copenhagen interpretation and Neumann's views. In the many worlds interpretation [18], proposed by Everett, events detected by the residents of one universe are influenced by events in other universes. In each of these explanations, the universe is divided into observable and unobservable parts. Nevertheless, the unobservable parts have indirect effects on events in the observable parts. We might then say that narrow kinds of Ultra-Information pass between the isolated realms of truth. This avoids the problem related to the role of the observer, in that here we accept that the process of a quantum opportunity exhibiting uncertainty, the universe splits into two, or as many versions of itself as desired to accommodate all possible measurement outcomes.

Unseen, on the other hand, linguistically means hidden, for example what is behind the walls is hidden from us but if we feel sure of what is happening behind the walls it is not the unseen. Similarly, tomorrow is hidden from us but if we can predict what is going to happen tomorrow, it is again not the faith in the unseen. In this world, there are things which might be known and agreed on through the senses of sight, hearing, touch, smell and taste. Animals, as well, have these senses which are often stronger than man's. But these powers are not associated with the unseen. Belief in the unseen means declaring that in the world of existence there are certain truths which we cannot discriminate by our senses, even if they are present before us, [19].

Nevertheless, if we cannot discriminate other truths further than the senses, we cannot say that they do not exist. Therefore, all the things which a human being should believe in are stated by the Qur'an under the headline of the unseen. Moreover, the verse of the Qur'an regarding belief in the unseen does not mean that we should receive every hidden matter merely because we have faith. For example, distinguishing numerous waves in space which

are not sound waves is something we can do by scientific assumption, not by the senses. Therefore, the rejection of the existence of such waves shows only ignorance.

It can be stated that the Qur'an begins with Surat Al-Baqarah, and the description of the true believers who fear Allah (S.W.T) comes at the beginning of the surah. Their first characteristics is the believe in the unseen, then establishing prayer, and spending out of what Allah (S.W.T) has provided for them, and who believe in what has been revealed to Muhammad (P.U.H) , and what was revealed before Muhammad (P.U.H), and of the Hereafter they are certain in faith. Then Allah (S.W.T) concluded by saying those who have these characteristics are upon the right guidance from their Lord, and certainly those are successful, [20].

In this study, the authors try to demonstrate the belief in the unseen using quantum physics and its various interpretations. Three examples in Qur'an, (namely: Moses (P.U.H) and Al-Khidr's story, Joseph (P.U.H) and regaining sight for Jacob (P.U.H) and Prophet Solomon's death and the Jinn) will be analyzed according to the quantum mechanical interpretations. The authors will, also, discuss various questions related to the Qur'anic examples and the most famous examples in the quantum world, *i.e.* double slit experiments and Schrödinger's cat.

2. Theory

This section will attempt to provide a momentary introduction to quantum mechanics. It is outside the range of this article to provide a comprehensive clarification of the mathematical configuration of quantum theory, so alternatively we will merely provide a partial overview of the most significant features. In classical physics, a system is continuously assumed to have a definite state and numerous properties. These properties are self-governing of measurement. In contrast, in quantum mechanics, the motion of particles is governed by the Schrödinger equation [21] instead of Newton's equations. In quantum mechanics, the state of a system is specified not by identifying the positions and velocities of every single particle in the system, but by the system's wave function. In one sense, the Schrödinger equation is also deterministic, because if we identify the preliminary wave function of a specified system, we can expect the system's wave function at any upcoming instant of time. Nevertheless, below the Schrödinger equation, the development of a system's wave function has a very appalling characteristic. A particle represented by quantum mechanics takes all expected paths. For instance if we put a localized particle on one side of a barrier, the barrier is high enough that the particle doesn't have practically enough energy to climb up the barrier. Classically, the particle will certainly not cross that barrier, it doesn't matter how long we wait. In contrast, the quantum particle will tunnel through the barrier and come to pass on the other side. This procedure is well approved and is the heart for the tunneling electron microscope. But, what are the suggestions of this fact? Consistent with the Feynman path integral design of quantum mechanics, if we restrict a particle in some region of space for a moment, it has a limited, non-zero possibility of ending up anywhere else in the universe at the next instant of time. So, in this case, the probability is extraordinarily low. However, if a miracle such as the resurrection is truly out of the question, we might be convinced to not worry about the indication. On the other hand, if it is simply debatable, investigating the indication is the merely actual way to distinguish whether it takes place.

For these reasons, laws of physics now no longer cope with certainties, but only probabilities. One can come to an end that miracles are not impossible. Additionally, when and if Allah (S.W.T) selects to interfere in the natural world, He can do so without in any way sacrilegious the laws of nature as we at present comprehend them, [22]. Therefore, the arbitrary nature of quantum physics indicates that there is at all times a tiny, but nonzero, chance of anything

to happen. Newton's laws would identify an obvious series of causality between the particle's original and ending positions. On the other hand, causality in quantum mechanics is considerably not easy to describe, since quantum measurement is fundamentally dependent on probability. Causality accepts that the arrow of time points only in one direction, and thus that cause and effect arrangements are completely stable. The wave function of a particle does not identify the precise position and momentum (Fig. 1) of a particle, but merely a distribution of possible positions and momenta that would be detected if the particle were measured. Radioactive decay [23] is the clearest example where this causality is even more obvious. The lack of an answer about what caused the radioactive decay event is not because of a lack of information about the original state of the system, but to the characteristic randomness of quantum mechanics. However, physicists believe in this strange phenomenon straight away.

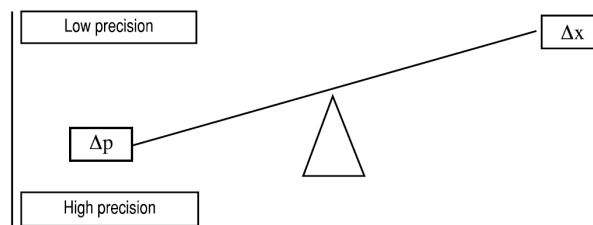


Figure 1. A seesaw correspondence of the uncertainty principle, Δp is the uncertainty in momentum and Δx is the uncertainty in position.

2.1 Double slit experiments

The original double-slit experiment was utilized by Young [24] in 1802 to prove that light is a wave. Two slits in a barrier are utilized to create two diffracted waves. They interfere with each other producing a repetition of constructive and destructive interference between the waves from the two slits on a screen located behind the barrier. This pattern has become recognized as an interference pattern (Fig. 2). Much more mysterious for classical physics are the following two forms of the double-slit experiment. The first one, done by Davisson and Germer [25] in 1927, basically utilized a beam of electrons rather than light and they were able to show that this will also produce an interference pattern. In the second form, a single particle is sent through the double-slit [26] at a time. This is repeated a thousand times till one starts to observe a pattern. One possibly assumes that every particle will pass through one of the slits and be detected behind either one. The screen should thus detect particles as if half of them go through one slit and half through the other. This is, still, not the case. Alternatively, we still catch the same interference pattern. This has been proven for a number of particles, including photons, electrons, protons and neutrons.

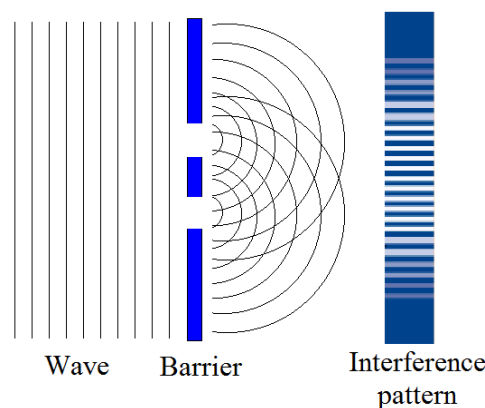


Figure 2. Scattering of a wave at a double slit showing the resulting interference pattern.

De Broglie [27] in 1924 proposed that if light is a particle, but also has wave features, the equivalent might be the case for other particles such as electrons. This led to the concept of wave-particle duality. According to the wave-particle duality, a particle moving through a double-slit will do so as a wave; conversely, when it is detected at the screen, this will be done as a particle. But, the probability of detecting a particle at a certain place on the screen is related to the interference pattern and consequently the Schrödinger wave function. We thus have no way of predicting with certainty where a particle will be detected. We can only make probabilistic predictions.

2.2 Schrödinger's cat

Schrödinger wrote a letter to Einstein, to congratulate him on what is well-known as the EPR paper, an eminent problem in the clarification of Quantum Mechanics. Afterward, he published what was to become one of the most famous contradictions in quantum theory. Schrödinger's cat [28] is a supposed experiment, proposed by Erwin Schrödinger in 1935 to explain illogical concerns of the orthodox interpretation of quantum physics. The orthodox vision of quantum mechanics recognized also as the "Copenhagen interpretation" holds that particles play out all likely certainties instantaneously. Each particle is signified by a "probability wave" allowing these numerous possibilities, and the wave collapses to a certain state only when the particle is measured. Schrödinger's cat experiment needs a 'quantum box', which defends the inside from interaction with the outside so as to generate an isolated system. Inside the box is a radioactive source. At what point such a source emits radiation depends on quantum mechanical processes of chance. The source can hence be utilized as a producer of chance of sorts. However, as long as the system is not measured, namely the box is opened; the source has to be seen as being in a superposition state of possessing emitted radiation and not possessing emitted radiation. Schrödinger, in addition, imagines a Geiger counter to be inside the box, which identifies whether the radiation was emitted or not. The system of radiation source and Geiger counter is accordingly in a superposition state of 'radiation emitted and radiation detected' and 'radiation not emitted and radiation not detected'. The detector is attached to a device in such a way that it breaks a glass with toxin if radiation is identified (Fig. 3). Moreover, there is a cat inside the box which dies if the poison is liberated. The entire system is accordingly in a superposition of two states, in one of which the cat is alive and the other dead. We cannot ever detect this state though, since once we open the box; the state will be lessening to one of the two options, [29].

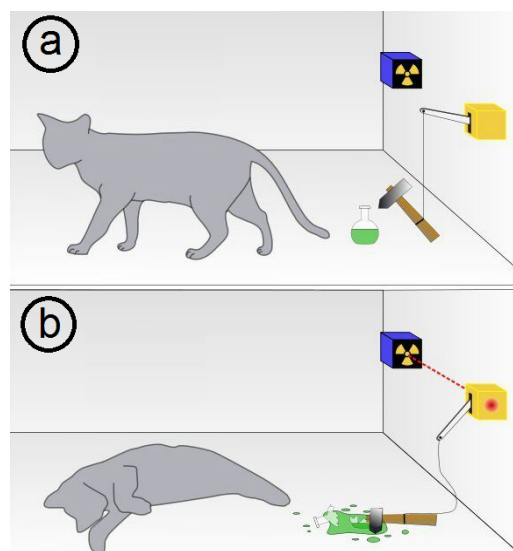


Figure 3. Schrödinger's Cat experiment, superposition of (a) alive and (b) dead states

2.3 Copenhagen interpretation

Imam Abu Hamid Al-Ghazali [30] and his age group were asked such a question as: "What is the starring role of God in everyday events?" Quantum physicists, similarly, ask "Is there a causal link between any two events?" or else "To what range is the conduct of physical objects expectable?" Although the phrasing and the setting of these questions are dissimilar, the fundamental questions are alike. In both circumstances, the questions turn around the reasons behind events in the ordinary world and the degree to which these events are expectable. Both ask whether one happening causes another or whether events happen because of some other, outside force, [31]. Moreover, both Imam Al-Ghazali in the eleventh century and quantum theory in the twentieth century suggest that the world is very different from what communal sense would lead one to have faith in. The form of objects is misleading. Objects do not have a self-governing being, as one has come to suppose. Objects are created each instant, whichever by God or by an action of observation. Additionally, it is not imaginable, even in opinion, to expect the exact actions of objects, but only the likelihood of events. Quantum mechanically this is close to the Copenhagen interpretation, although separated by culture and by nearly ten centuries, the similarities between Al-Ghazali and the Copenhagen interpretation are remarkable, [30]. Going back to the double-slit experiment, the observation that solidifying one ghost beyond the array of potential electrons is equal, in terms of quantum mechanics, to the collapsing of all the collection of probability waves only for one packet of waves that refer to one real electron. This is at the core of the Copenhagen Interpretation, which relies upon the hypothesis that uncountable ghost particles interfere with each other all the time and only amalgamate into a single real particle as the wave function collapses throughout an observation.

2.4 Many-Worlds Interpretation

Based on the Many-Worlds Interpretation, first proposed by Everett [32] in 1957, the universe consists of numerous different worlds (Fig. 4). Whenever a quantum chance incident takes place, new worlds are generated, one for each probable outcome. Super-positioned states constitute convinced connections between the worlds. Thus, with respect to Schrödinger’s cat, there are two worlds, one wherein the cat is alive and one wherein it is dead. In the double slit experiment there is one world wherein the particle goes through the left slit, and one wherein it goes through the right slit. Nevertheless, these two worlds are still related in a way, which explains the likelihood of superposition incidents.



Figure 4. Bubble Universes: Every disk is a bubble Universe.

On the other hand, there is hidden-variable [33] clarification, which assumes unknown variables that determine the clear indeterministic procedures, some events which have no reason, in quantum physics. The hidden variables are not only mysterious, but incomprehensible before measurement. Hidden-variable interpretations accordingly do not permit us to make additional guesses about measurement results. There is a parallel to the modal interpretation, which deals with the wave function and the visible as two separate things. Determinism and value certainty can hence not be utilized to defend hidden-variable theories over other interpretations of quantum physics. Penrose [34] claimed that hidden-variable interpretations are more wide-ranging than the collapse interpretation because they contain two states; the state of the particle and the guiding wave. This debate may also be applied to the modal interpretation because observables are not deterministically correlated to a wave state and hence, one might claim, constitute isolated objects.

The Many-Worlds interpretation suggests that there are many worlds besides the one we are conscious of. They are all alike and they all exist in the same space and time unconscious of one another. This sympathy of the universe is not a representational version of the kingdom of the quantum world of atomic and subatomic particles, but it is straightforwardly related to the macro-world. What is exciting concerning the Many-Worlds vision is that, while supporting the existence of what seem to be multiple times and spaces into a single time and space, it seems to collapse the ideas of time and space themselves into one another.

3. Results and discussion

In this section, the authors will utilize some of the philosophical bases placed in previous sections to reflect on the belief in the unseen through the Qur'anic examples and quantum physics via various interpretations. First, the authors discussed various questions related to theory and observation in quantum physics regarding the most famous examples, *i.e.* double slit experiments and Schrödinger's cat. Here, we will prove that quantum physics is an acceptable tool, despite several disproportionate features, with the aim of redirecting the focus of the scientists, emphasizing that there are no discrepancies between the Quantum physics and the belief in the unseen. Finally, we will suggest that some of these thoughts may be relevant to attempts to combine quantum physics with the belief in the unseen in the Qur'an. The first Qur'anic example will be Moses and Al- Khidr: Mind facing the unseen story.

3.1 Moses and Al- Khidr: Mind facing the unseen

Science deals with lots of things we cannot straightforwardly observe. By straightforwardly is meant with the unassisted senses. For instance there are the elementary particles such as electrons and quarks which are thought to offer the microscopic building blocks of matter, but also the mysterious photons and gluons etc. which mediate interactions between the microscopic building blocks.

Although Moses (P.U.H) was among the best messengers of Allah (S.W.T), but Allah (S.W.T) let him to follow one of His servants that Allah (S.W.T) gave him some knowledge about the unseen world. Here Moses (P.U.H) represents the law to be followed, but Al-Khidr, or basically the Allah's servant, represents the unseen destiny, which clarifies what is behind the events of the judgment and the spiritual secrets that make the reader of the event feel the invisible dimensions of what is going on in the universe of sufferings and disasters. The story of Moses'

life, and his story with Al-Khidr, motivates one to look in his life or around him for analogies that are similar, even in some way, to some of the great events of the world and the universe.

Moses (P.U.H) was not able to learn from Al-Khidr as promised, he blame Al-Khidr when he break the ship; afraid to drown its people, forgetting that when his mum thrown him in the sea when he was an infant and Allah (S.W.T) protect him from sinking. Al-Khidr was satisfied with protecting the ship and preserving the wealth of the poor. Moses (P.U.H) was denied Al-Khidr when he killed the corrupt boy, but this was sort of warning that the killing children of Israel by Pharaoh, although is a crime, but Allah (S.W.T) has his secrets and dimensions, which is surrounded only by Allah (S.W.T) from his knowledge, and from the people who gave a knowledge about these things. Moses (P.U.H) did not restrain himself from building the wall without paying for the children of the village when they refused to invite them. This was similar to what Moses (P.U.H) did to the two weak girls in the land of Median and their father was one of the righteous. Similarly, at the beginning, Moses (P.U.H) did not find kindness out of that, Allah (S.W.T) said: So he watered, their flocks, for them; then he went back to the shade and said, My Lord, indeed I am, for whatever good You would send down to me, in need (Al-Qasas, 24), [20].

Accordingly, when Moses (P.U.H) comes to your mind with his questions you have to look for Al-Khidr (P.U.H) in your heart as his answers. When Al-Khidr (P.U.H) attended the absence and delivered in your approach you had to look for Moses (P.U.H) in his research and investigation in your life. Such a story specifies that everything occurs according to Allah's will, since only He gives such knowledge to His few selected people, and merely as much of it as He wills. Therefore, Al-Khidr (P.U.H) could merely reveal such information of the unseen by Allah's will. It can be comprehended that, within the selected abnormal events Al-Khidr (P.U.H) was not a part from Moses's world, but he was observing those events in the totally different world, of course, the world that Allah (S.W.T) let him to do this observation. As stated in many verses in the Qur'an, Allah notifies the knowledge of the unseen to His slaves whom He wills. Allah (S.W.T) says: That is from the news of the unseen which We reveal to you (Al-Imran, 44), [20]. Thus, this example, to a large extent, explains the many world interpretations.

Although, it is accepted that the difference between divine philosophy and religion is that the previous might at most believe that there is God away from the universe, whereas the key thing in religion is the correlation between a human being and its Creator, between us and the unseen that it creates and guide us to deed and effort through our supplications to achieve our aim. Allah (S.W.T) said: And you were on the edge of a depth of the Fire, and He saved you from it. Thus Allah makes clear to you His verses that you may be guided (Al-Imran, 103), [20]. In Imam Al- Ghazali's understanding, God can create existences which exist unseen near a person. In the Many-Worlds interpretation of quantum mechanics, particularly in the one Deutsch [35] suggested, there exist many universes and there exist many existences in these universes, unseen to each other. As stated by Deutsch, the universes never split but they can sometimes gather together. He also considers that with the help of quantum computers, as he believed, we could communicate with the different worlds,[36]. The famous contemporary physicist Stephen Hawking, who also accepts the Many-Worlds interpretation, looks at the equivalent universes as histories. He clarifies this in his book 'Black Holes and Baby Universes', [37].

Based on that, we understand that there exists Kingdoms recognized only by Allah (S.W.T), which He shows to whomever He wills of His servants. The unseen, Al-Ghaib, in its complete heart is divided into two: a relative unseen world and an absolute unseen world. So, the

absolute unseen is only within the Knowledge of Allah (S.W.T), and has not yet emerged out of the Kingdoms, Allah (S.W.T) said: And with Him are the keys of the (all that is unseen), none knows them but He." (Al-An'aam, 59), [20]. But, of course, the Messenger of Allah (P.U.H) told us about unseen things that happened for sure. Then why Allah (S.W.T) says: Say, [O Muhammad], "I do not tell you that I have the stores of Allah or that I know the unseen, nor do I tell you that I am an angel. I only follow what is revealed to me. (Al-An'aam, 50), [20]. Allah (S.W.T), commanded His Messenger (P.U.H) to tell us that he knows not the unseen, so how did the Messenger of Allah (P.U.H) predicted unseen events that would happen several years ahead and recited them to the believers standing around him. The answer is that the Messenger of Allah (P.U.H) undoubtedly knows not the unseen, but it is Allah (S.W.T), Who had informed him of all the secrets he predicted. Allah (S.W.T), has shown him events that would come about in the future to narrate them to us as an evidence to the truth of his message and the fact that it is sent by Allah (S.W.T). Also, Allah (S.W.T) says in Surah Al-Imran, 44 that is from the news of the unseen which We reveal to you, [O Muhammad], and you were not with them when they cast their pens as to which of them should be responsible for Mary, nor were you with them when they disputed, [20]. But the absolute unseen is only known by Allah (S.W.T). Allah (S.W.T) says: [He is] Knower of the unseen and He does not disclose His [knowledge of the] unseen to anyone except whom He has approved of messengers, (Al-Jinn, 26-27), [20].

The relative unseen, on the other hand, constitutes the unseen matters that humans may know. But what is the relative unseen? It is something you do not know but others do. For instance, if something is stolen from you, the thief is unknown to you; it is something beyond your knowledge. The police may also not know the thief, but the thief knows himself, as well as his accomplice who hid the stolen objects and the buyer of the stolen goods. Allah (S.W.T) says: That is from the news of the unseen which We reveal to you (Al-Imran, 44), [20].

3.2 Joseph (P.U.H) and regaining sight for Jacob (P.U.H)

This Qur'anic example is an obvious example regarding quantum entanglement. Quantum entanglement is a physical sensation that takes place once pairs or groups of particles are generated or act together in ways such that the quantum state of any particle cannot be characterized individually, [38]. The entanglement plays an essential role in quantum communication between pairs detached by macroscopic distances, [39]. Thus, there is no action at a distance in our Universe, but there is an entanglement. Besides, a world is a nonlocal concept; this clarifies why we perceive non-local connections in a specific world.

According to the Holy Qur'an, the story of Joseph, Yusuf, (P.U.H) is among the best stories in the Qur'an. This is, perhaps, due to as Allah (S.W.T) stated: There was certainly in their stories a lesson for those of understanding. Never was the Qur'an a narration invented, but a confirmation of what was before it and a detailed explanation of all things and guidance and mercy for a people who believe (Yusuf, 111), [20]. The story, in its entirety, is an indirect sign to our Prophet (P.U.H) that he would hate to leave his land; from his nation, as Joseph (P.U.H) would have to do so by his brothers and that the consequences would be the same. Then, you are going to forgive them as Joseph (P.U.H) forgave his brothers who have ill-treated him.

The part we need to concentrate on in this investigation is when Prophet Jacob (P.U.H) had regained his sight in the full form of the miraculous ability that Prophet Joseph (P.U.H), taught and used to do so. The relationship between Jacob (P.U.H) and Joseph (P.U.H) was like a Quantum entanglement. The sensation took place between Jacob (P.U.H) and Joseph (P.U.H) they were acting together in ways such that the state of any of them cannot be characterized

individually. It is clear that the restoration, regaining sight, of Jacob (P.U.H), was from Allah (S.W.T) through Prophet Joseph (P.U.H), this was done by sending his shirt to his father, not by invocation. Allah (S.W.T) says: Take this, my shirt, and cast it over the face of my father; he will become seeing. And bring me your family, all together (Yusuf, 93). Jacob (P.U.H), on the other hand, when His sons departed from Egypt, he was not weakened in mind, he said, indeed, I find the smell of Joseph (P.U.H). Allah (S.W.T) says: And when the bearer of good tidings arrived, he cast it over his face, and he returned, once again, seeing. He said, "Did I not tell you that I know from Allah that which you do not know?"(Yusuf, 96), [20].

Allah (S.W.T) says at the end of Surah Yusuf: That is from the news of the unseen which We reveal, O Muhammad, to you. And you were not with them when they put together their plan while they conspired (Yusuf, 102), [20].

The novel physics proposes that, in addition to matter and radiation which can be characterized in familiar space and time, there must be other elements which cannot be characterized. These are just as real as the material elements, but they do not occur to make any straight request to our senses. Therefore, the material world establishes the whole world of appearance, but not the entire world of reality; we might consider it as forming merely a cross-section of reality, [40].

In each of these universes, diverse laws and forces, with diverse powers, exist. Therefore, there is likelihood for the being in a different universe with the features of our universe. Obviously, in both of these visions, one combines one's own metaphysical expectations. Nevertheless, as the famous physicist, Paul Davies [41], assumed, the hypothesis of a designer is much more efficient than that of a multiverse: Not everyone is glad with the many-universes theory. To assume endless unseen universes just to explain the one we do see seems like a case of additional bags carried to the extreme. It is simpler to assume one unseen God. Allah (S.W.T) says: All praise is due to Allah, Lord of the worlds (Al-Fatiha, 2), [20].

3.3 Prophet Solomon's death and the Jinns

In the last Qur'anic example, Prophet Solomon's death and the Jinns, the authors would like to show the superiority of the many-worlds interpretation above the Copenhagen interpretation. The former does not include the extraordinary role of measurement actions and causal that is normal of the latter. Still, physicists do not feel happy with the idea that the observer's awareness "agrees" for or against an assumed world, nor with the huge number of assumed worlds the many-worlds interpretation appears to need.

After his father's death, Prophet Solomon (P.U.H) became king. He asked Allah (S.W.T) for a kingdom such as none after him would have, and Allah granted his demand. In addition to wisdom, Allah (S.W.T) had blessed Solomon (P.U.H) with numerous capabilities. He could command the winds and understand the speech of birds and animals. Allah sent him to teach both men and Jinns. Solomon's public work was mainly carried out by the Jinns.

Solomon's life and death were full of lessons and miracles; therefore, his death was blended with his life and magnificence. His death, similar to his life, was exceptional. It was a lesson about how the unseen is known neither by the Jinns, nor by the prophets, but by Allah and whom Allah (S.W.T) wants to tell. Solomon's death became an instance; he was sitting holding his staff, overseeing the Jinns at work in a mine. For a long time nobody was aware of his death, he entered the death world, for he was seen sitting straight. The Jinns continued with their sand toil, in their world, thinking that Solomon was watching over them. Until a hungry

ant began eating Solomon's staff, then Solomon's great body fell to the ground. Then, people realized that Solomon (P.U.H) had died a long time ago and that the Jinns did not know the unseen. Allah (S.W.T) says: And when We commanded for Solomon death, nothing indicated to the Jinn his death except a creature of the earth eating his staff. But when he fell, it became clear to the Jinn that if they had known the unseen, they would not have remained in humiliating punishment (Saba, 14), [20].

As indicated by the many-worlds interpretation, the world is divided into two parallel worlds, once the hungry ant ate Solomon's staff. For the Jinns, Prophet Solomon is alive; but for the hungry ant, it is not. Besides, the worlds are completely indistinguishable; specifically, multiverse theory, they follow the same laws of nature. The observer, the Jinns in this case, does not notice anything of this splitting since they stay to live in both worlds. Meanwhile there are many procedures in nature that are very comparable under observation; there is now a limited but exceedingly large number of parallel worlds in the universe.

In fact, the failure of the wave function, as recognized principally by the Copenhagen interpretation, is very similar to what Imam Al-Ghazali [42] clarifies in his book 'Tahafut Al-Falasifah' about the nature of the souls of the prophets. While, in modern quantum theory this thought takes on a different form; it is expressed quantitatively as probability and subject to mathematically expressible laws of nature. Besides, some physicists also mention this impact to God, as does. According to Al-Ghazali, these quantum theorists are also likely to assume the entire universe as being under the observation of its inventor. In this vision, it is God, as an ultimate observer, who collapses every wave function, [43]. This, on the other hand, is not yet, in general, an approved idea within the Copenhagen interpretation of quantum mechanics. It is anticipated that this will help to cover the way for additional such investigations, with the intention of redirecting the emphasis of academic world, both within religious studies and the physical sciences, towards an observation of the similarities rather than the dissimilarities between such apparently exceptional fields of study.

The collapse of the wave function of a system needs the observer to be outside the system. No observer could be outside of the entire universe except Allah (S.W.T). Thus, the wave function of the entire universe could never collapse apart from Allah's command. Then, if the wave function of the entire universe never collapses, one ends up with the Many Worlds interpretation. Certainly, although the theologians have not been very keen to ascribe to God the role of ultimate observer who brings the entire quantum universe into being, still Barrow [44] states that such a picture is reasonably reliable with mathematics.

4. Conclusion

In this study, we firstly highlighted the importance of quantum physics, an ultimate effective model in the history of science, which explores and elucidates how the whole thing in the visible world comes into existence. Then, a comprehensive clarification, without the mathematical configuration of quantum theory, has been analyzed through the most significant philosophical interpretations of quantum mechanics, namely Many-World and Copenhagen interpretation.

Originally, this investigation was an attempt to readdress the focus of the scientists, highlighting that there are no inconsistencies between the Quantum physics and the belief in the unseen. As we are all aware, the unseen is a crucial pillar of our faith as stated in many verses in Qur'an and many Hadiths. Therefore, the systematic analysis modeled by the authors

in this study attempted to analyze these superficially manifold subjects, with the purpose of analyzing the Qur'anic thoughts and universalizing the visions of quantum physics.

This investigation showed, through three Qur'anic examples, *i.e.*, Moses and Al- Khidr, Joseph (P.U.H) and regaining sight for Jacob (P.U.H) and Prophet Solomon's death and the Jinns, that quantum physics is a suitable tool, in spite of several inappropriate features, for emphasizing the belief in the unseen. Since, Many-World or Multiverse interpretation, which is, in term, not a new concept in quantum physics, but it possesses scientific support around the world. Finally, it should be highlighted that, the scientists who support this assumption and who at present time represent the majority of the scientific public. We believe that it is possible to explain some of the miracles demonstrated by our prophet Muhammad (P.U.H) in the context of quantum mechanics, but this requires effort and full knowledge in both the religious and quantum fields.

Acknowledgments

After giving thanks to Allah (S.W.T), the author thanks everyone who endured endless discussions on this topic, and they thank the International Journal of Islam. We ask Allah (S.W.T) for their steadfastness and success. The author views this journal as opening the door to a stronger link between religion and science.

References

1. Plotnitsky, A., *Niels Bohr and Complementarity: An Introduction*. 2012: Springer New York.
2. Dolphin, P., *The Uncertainty Principle*. 2015: Coretext Books.
3. Carter, T.F., *God does not play dice with the Universe, or does He? Anthropological interlocutions of sport and religion*. Religion and Society, 2012. **3**(1): p. 142-162.
4. Wikipedia, S., *Wave Mechanics: Frequency, Double-Slit Experiment, Doppler Effect, Phase, Diffraction, Phase Velocity, Interference, Wave Equation, Huygens-Fresnel Pr*. 2013: University-Press Org.
5. Einstein, A., B. Podolsky, and N. Rosen, *Can quantum-mechanical description of physical reality be considered complete?* Physical review, 1935. **47**(10): p. 777.
6. Folse, H.J. *Niels Bohr, complementarity, and realism*. in *PSA: Proceedings of the Biennial Meeting of the Philosophy of Science Association*. 1986. Philosophy of Science Association.
7. Nagasawa, M., *Schrödinger Equations and Diffusion Theory*. 2012: Springer Basel.
8. Griffiths, D.J., *Introduction to quantum mechanics*. 2016: Cambridge University Press.
9. Polkovnikov, A., et al., *Colloquium: Nonequilibrium dynamics of closed interacting quantum systems*. Reviews of Modern Physics, 2011. **83**(3): p. 863.
10. Tanona, S., *Idealization and formalism in Bohr's approach to quantum theory*. Philosophy of Science, 2004. **71**(5): p. 683-695.
11. Camilleri, K., *Constructing the myth of the Copenhagen interpretation*. Perspectives on Science, 2009. **17**(1): p. 26-57.
12. Gomatam, R., *Niels Bohr's Interpretation and the Copenhagen Interpretation—Are the Two Incompatible?* Philosophy of Science, 2007. **74**(5): p. 736-748.
13. Henderson, J.R., *Classes of Copenhagen interpretations: Mechanisms of collapse as typologically determinative*. Studies in History and Philosophy of Science Part B: Studies in History and Philosophy of Modern Physics, 2010. **41**(1): p. 1-8.
14. Laszlo, E., *Quantum shift in the global brain: How the new scientific reality can change us and our world*. 2008: Inner Traditions/Bear & Co.

15. Aerts, D. and M.S. de Bianchi, *Many-measurements or many-worlds? A dialogue*. Foundations of Science, 2015. **20**(4): p. 399-427.
16. DeWitt, B.S. and N. Graham, *The many worlds interpretation of quantum mechanics*. 2015: Princeton University Press.
17. Bohm, D., *A suggested interpretation of the quantum theory in terms of "hidden" variables. I*. Physical Review, 1952. **85**(2): p. 166.
18. Barrett, J.A., *Many worlds interpretation of quantum mechanics*. Compendium of Quantum Physics, 2009: p. 363-367.
19. Abdul-Rahman, M.S., *Islam: Questions and Answers*. 2003: MSA Publication Limited.
20. Yusuf, A.A., *An English Interpretation of the Holy Qur-An*. 2007: Lushena Books.
21. Schrödinger, E., *An undulatory theory of the mechanics of atoms and molecules*. Physical Review, 1926. **28**(6): p. 1049.
22. Lowe, E.J., *Miracles and laws of nature*. Religious Studies, 1987. **23**(02): p. 263-278.
23. Falkenberg, E.D., *Radioactive decay caused by neutrinos?* Apeiron, 2001. **8**(2): p. 32-45.
24. Young, T., *The Bakerian lecture: On the theory of light and colors*. Philosophical transactions of the Royal Society of London, 1802. **92**: p. 12-48.
25. Davisson, C. and L.H. Germer, *Diffraction of electrons by a crystal of nickel*. Physical review, 1927. **30**(6): p. 705.
26. Bach, R., et al., *Controlled double-slit electron diffraction*. New Journal of Physics, 2013. **15**(3): p. 033018.
27. De Broglie, L., *Recherches sur la théorie des quanta*. 1924, Migration-université en cours d'affectation.
28. Wineland, D.J., *Nobel Lecture: Superposition, entanglement, and raising Schrödinger's cat*. Reviews of Modern Physics, 2013. **85**(3): p. 1103.
29. Dapprich, J.P. and A. Schuster, *Philosophy and Logic of Quantum Physics: An Investigation of the Metaphysical and Logical Implications of Quantum Physics*. 2015: Lang, Peter GmbH.
30. Devji, U.Y., *Al-Ghazali and Quantum Physics: A Comparative Analysis of the Seventeenth Discussion of "Tahafut Al-Falasifa" and Quantum Theory*. 2005.
31. Harding, K., *Causality then and now: Al Ghazali and quantum theory*. American Journal of Islamic Social Sciences, 1993. **10**(2): p. 165.
32. Everett III, H., *"The Many-Worlds Interpretation of Quantum Mechanics,"*(BS DeWitt and N. Graham, Eds.), Princeton UP, Princeton, 1986; JA Wheeler. Rev. Mod. Phys, 1957. **29**: p. 463.
33. Cushing, J.T., A. Fine, and S. Goldstein, *Bohmian Mechanics and Quantum Theory: An Appraisal*. 2013: Springer Netherlands.
34. Penrose, R., *The Road To Reality: A Complete Guide to the Laws of the Universe*. 2016: Random House.
35. Deutsch, D., *Quantum theory as a universal physical theory*. International Journal of Theoretical Physics, 1985. **24**(1): p. 1-41.
36. Deutsch, D. *Quantum theory, the Church-Turing principle and the universal quantum computer*. in *Proceedings of the Royal Society of London A: Mathematical, Physical and Engineering Sciences*. 1985. The Royal Society.
37. Hawking, S., *Black Holes and Baby Universes and Other Essays: And Other Essays*. 2011: Random House Publishing Group.
38. Kisak, P.F., *Quantum Entanglement I: ... Spooky Action at a Distance*. 2016: CreateSpace Independent Publishing Platform.

39. Ferrero, M., et al., *A further review of the incompatibility between classical principles and quantum postulates*. Foundations of science, 2013: p. 1-14.
40. Crehore, A.C., *The Mystery of Matter and Energy: Recent Progress As to the Structure of Matter*. 2008: BiblioBazaar.
41. Davies, P., *Mind of God: The Scientific Basis for a Rational World*. 1993: Simon & Schuster.
42. Al-Ghazali, S. *Tahafut al-falasifah [incoherence of the philosophers/translated into English by Sabih Ahmad Kamali*. in *Lahore: Pakistan Philosophical Congress*. 1963.
43. Squires, E.J., *The Mystery of the Quantum World*. 1994: CRC Press.
44. Craig, W.L., 'What Place, then, for a Creator?': *Hawking on God and Creation*. The British Journal for the Philosophy of Science, 1990. **41**(4): p. 473-491.