

Essay

On God's Supernatural Role in Hawking's Literature

Hossien Hossieni*

Department of Physics, School of Science, University of Sulaimani Kurdistan, Iraq

Abstract

In this essay, I will discuss the roles which the belief in the supernatural and the theories about it have had in physics throughout history. I will begin with Aristotle's theories about the origin of the Universe and then move to discuss the beliefs and theories of other famous scientists and physicists all the way to Hawking. I will describe the evolution of the supernatural including Einstein's philosophical God to the non-existence of supernatural forces in Hawking's literature. Even today the questions on whether God was involved in the creation and/ or is the origin of the Universe are debated.

Keywords: God, supernatural, science, evolution, philosophy, Einstein, Hawking.

1. Introduction

It is generally believed by the public that physics is a branch of the natural sciences and that there is no room for God in its discussions and investigations. All through history it has been pointed out that scientists and especially physicists do not believe in the existence of God or His participation in the creation of the Universe. People fail to understand that the relationship between the supernatural and the natural worlds is explained through metaphysics. It is hard to find a scientist in any field who talks about God in his or her work. Everybody is free to believe in and idolize a God through any religion he or she wishes but this information and their beliefs are rarely included in their writings and investigations.

The general role is that when a physicist speaks about the Universe and its origin, the religious factions, especially the Jews, Christians and those who believe in Islam react and oppose any theory, old and new. Most of the existing religions, especially those who follow Abraham, believe in a simple, pseudo-scientific model and explanation about the origin of the Universe and they even have a day and year and a sequence of the events that took place at that time. These events are clearly described and explained in their Scriptures (1-2) where they analyze the scientific phenomena that lead to the creation of the Universe (3).

The cosmos is something physicists study and have studied since Mankind started to ask questions about his surroundings and cosmology is the mother of physics and all the other

* Correspondence: Hossien Hossieni, Department of Physics, School of Science, University of Sulaimani Kurdistan, Iraq.
E-mail: hossien.hossieni@univsul.edu.iq

natural sciences. Sir Isaac Newton believed that God is the coordinator of planet's motion (4), and Albert Einstein analyzed and tried to understand His thinking (5). During the classical period, leading physicists studied the situation concerning the existence of a supreme God and His involvement with creation to determine His relationship with science and evolution (6).

According to the Laplace's scientific determinism, all of the phenomena that occur in the Universe obey laws and nothing happens without there being a reason or cause for it to happen (7). In Kant's philosophy, causality has the priori and is most important. Nothing is trivial (8). Many scientists and philosophers in the middle ages accepted the need for the existence of God and His creation of the Universe. Many people believed they have a personal God, and others believed in an elaborate, philosophical God. During the twentieth century we find agonistic and atheist scientists, but they have also used or use the concept of supernatural in their writings and theories (9).

Although many physicists have used the idea of God and creation and speak of the supernatural, they have changed its name and have turned things around a bit to fit their intentions and theories. Many of these theories which are related to phenomena they cannot explain through physical science include concepts related to unidentified substances, demons and spookiness (9).

In this essay, I will discuss the roles which the belief in the supernatural and the theories about it have had in physics throughout history. I will begin with Aristotle's theories about the origin of the Universe and then move to discuss the beliefs and theories of other famous scientists and physicists all the way to Hawking. I will describe the evolution of the supernatural including Einstein's philosophical God to the non-existence of supernatural forces in Hawking's literature. Even today the questions on whether God was involved in the creation and/ or is the origin of the Universe are hotly debated.

2. God and the Supernatural in Physics

Aristotle, the founder of physics, was probably the first physicist in history to speak about God. Aristotle called God the "unmoved mover" and he decided the world in two separate parts, the celestial world and the terrestrial world, they were considered unrelated but at the same time there was harmony and communication between them (10). In the terrestrial world matter was made up of four substances earth, water, air and fire and in the celestial world there was a fifth substance called quintessence. During the time Aristotle lived many gods were venerated, one for love, another for war, another for prosperity and so on so there was no single God to be adored. People venerated specific gods for specific needs. There was no personal or philosophical god, instead each person had his or her favorite to whom they presented sacrifices and prayed to.

Aristotle spoke of the one God, the personal and philosophical God in his writings but without criticizing or denying the existence of all the other gods people believed in (11). His philosophy about the one God and His participation in the creation of the Universe were later adopted by the Roman Catholic Church which did not permit or accept discussion or doubts about this matter. Difference of opinions and beliefs about the existence of God and His hand in the creation of the Universe led to the dark times of the Inquisition where thousands were sacrificed because of their disbelief or doubts about the one God theories the church proclaimed as true and definite (12). The same thing happened in the world of Islam which Aristotle studied and approved of, in fact, he was first teacher and a student of Islam and he did not receive serious criticism about this because of the close relation and similarities between the two religions (13).

During the Middle Ages scientists discovered that motion is relative and they came up with the theory that the “unmoved mover” from the Scriptures was pointless and unreal. Other reasons that supported the theory of the pointless and unreal “unmoved mover” were Galileo’s principles of movement and Sir Isaac Newton’s First Law of Physics which proved to the scientific world that there was no real proof of the existence of a Supreme Being or God because everything was part of the evolution of the Cosmos and the world itself. As science evolved and new discoveries and theories were introduced the theories which had reigned during the Middle Ages started to fade away giving room to the new scientific movements (14).

Ptolemy’s model of the solar system and his theory of the way the planets were structured and moved depended on Aristotle’s geocentric model which put the Earth in the middle with all the other planets and celestial bodies moving around it. This theory was rejected by some of the most reputed scientists of the time including Tycho Brahe, Copernicus and Galileo. Which did not affect in any way the presence and existence of the personal God within the different branches of the developing scientific world. In fact, Galileo, who is considered the greatest scientist and visionary of his time was prosecuted by the Catholic Inquisition because of his revolutionary and sinful theories and his approval of Copernicus’ Heliocentric model of the Universe (15). Although Galileo was prosecuted and banned from the Catholic Church he never stopped believing in the one God and the Holy Bible and Scriptures insisting that his work was an interpretation of God’s words given to man through the Holy Bible (16).

Sir Isaac Newton is considered the greatest mathematician, astronomer and scientist of the sixteenth and seventeenth centuries, his theories and laws were unquestioned three centuries after he had died. He gave the world his three laws concerning motion and gravity, he built the first functional reflecting telescope and he participated and wrote many other scientific papers and theories which are considered masterpieces today. Sir Isaac Newton believed in personal God, a supreme being who was responsible for ordering the Universe perfectly and harmoniously. He believed that it was impossible that this perfection could come from a natural or lucky event and that there had to be a Supreme Being who had designed and created such beauty and perfection (17). He believed that God was this Supreme Being who prevented the planets from being

absorbed or destroyed by the sun and that it was He who had placed everything where it was and everything would remain so forever (18-19). Newton called himself a scholar and an exegete of the Holy Bible and devoted many hours to its study and its comparison with his theories and work (20).

Another mathematician and physicist who doubted and challenged God's role in science and creation itself was the Frenchman Pierre Simon Laplace. He wrote a very interesting book about celestial bodies and their motion but he did not use God's name anywhere in the book. Every other writer he published books about the stars and planets made at least a small mention whether in favor or against God in their books, Laplace did not mention Him at all. When the French Emperor Napoleon Bonaparte asked him about this and the reason why he did not mention God in his book, Laplace answered that he had not felt the need to mention this hypothesis in his book (21). It is believed that this is the turning point in history where the scientific determinism began.

Determinism states that all physical systems obey and are controlled by a set of unchangeable physical laws and that to deviate from these laws and precepts is impossible. It says that by knowing the state and condition of a system we can predict its future state and can also determine and plot its past condition and state. There are no supernatural forces and there will never be any supernatural forces that can affect or change the pre-established conditions and states of the Universe and all the celestial bodies found in it (22). The roots of the Laplace philosophy and school lie within the Kant's philosophy and causality principles, yet Laplace seems to believe in the existence of a philosophical God according to Kant's definition of God. According to Kant, all events and their consequences lead to a final conclusion or reaction and this conclusion in itself is self-existent. It was not produced or is not the product of anyone or anything actions or reactions (23).

Scientific determinism did not hamper or slowdown in any way the belief in the supernatural and the one God. In fact, even those who favored and pushed determinism on mentioned the supernatural in their writings and theories, an example of this are Maxwell and Laplace who included demons in their thermal physics theories and papers (24). A new science emerged at the beginning of the twentieth century, it was called quantum physics. Quantum physics brought an end to the scientific determinism theories; it also brought up the end or almost the end of the classic physics theories concerning the possibility of re-tracing the past states and conditions of physical systems and also the possibility of predicting their future. The laws of quantum physics determine that the past and future of physical systems cannot be exactly predicted because there are too many probabilities and factors that must be taken into account to even come close to a certain prediction. That it is impossible to accurately predict the future of a physical system using its past and present state, that it is only possible to determine the probabilities of what can happen and even them these are more a guess than reality.

Kant's causality principle also failed and was proved wrong with the emergence of quantum mechanics (25). The reason for its failure goes back to Heisenberg's Uncertainty principle and the philosophical interpretation as Copenhagen interpretation (26). The philosophical interpretation of quantum mechanics and physics divided the world of physics in two, on one side was Albert Einstein and his followers who were extremely deterministic and were not convinced by the theories and principles related to the probabilities and predictions that quantum mechanics presented, they believed that it was possible to predict with great accuracy the changes and directions physical systems would have in the future. They also believed that they could follow any physical system to the past and determine and plot its changes and advances through time and space (27). Debates and discussions turned hostile and aggressive at times but there was no advance towards agreement or complete acceptance of quantum mechanics theories and principles (28).

Einstein once said "God does not throw the dice with regards to the Universe and the path an electron should take". Einstein's statement was considered a challenge to the scientific world especially to the world of physics. Here was one of the greatest physicist of the time, who was also a determinist speaking about God, a God who was not only mentioned on this occasion but was also a part of his lectures, articles and discussions (29). Later it was determined that Einstein was not speaking of the God the Hebrews and Christian religions adore and follow, his comment was more directed to his own personification and belief of the existence of a supreme being who created, managed and ordered the Universe. His God was not the same God the Abraham religions follow, his God was more like the God described by Spinoza (30-31). Spinoza describes and believes in a God, ancient cultures and even some modern cultures believe in, God equals Nature (32).

After quantum physics was finally established and recognized, the supernatural reappeared on the scientific scene. Einstein introduced some puzzles which were supposed to prove that quantum physics was not real or correct. One of them was the EPR experiments by which Einstein and his colleagues proved that the effect of a moving particle could be transmitted instantly. According to Einstein relativity transmission at speeds higher than that of light were impossible and forbidden. Einstein said that this was the work of supernatural forces working at a distance (33). Today it has been proven that there are no supernatural forces working at a distance and this comes to support the fact that this effect cannot be used to transmit information in the world (34).

3. Hawking and God

Hawking was born three hundred years after Galileo had died (35). According to Hawking, Galileo was the first true physicist in the modern sense of the word. He was not only the first physicist but the first to try to enlighten the Roman Catholic Church with regards to then truths

and myths of the Universe. When Hawking was young and started his path down the physics lane, his family and friends tried very hard to make him believe in the reality and existence of God and His role in the creation of the Universe (36). At the same time he was trying to understand the equations and theories which explained and ruled the function of the Universe and God's participation and control over these matters. Since he did not believe in the one God theories, he continued with his efforts to find alternatives to this theory of a God creating the Universe by Himself (37).

In his book "The Theory of Everything", he says that he is in search of the true origin of the Universe. He also mentions that he had retaken this quest after he attended a conference about cosmology in the Vatican. During this conference, the Catholic Church supposedly accepted that they had made a great mistake by dismissing Galileo's theories about the sun and the planets and their position in the Solar System with regards to the Earth. All this happened centuries after Galileo and his theories and models of the Solar System with the Earth in the middle have been proven wrong without question. After the conference in the Vatican finished, those present were invited to a private audience with His Eminence the Pope. During this private sit, the Pope told them that it was okay to study and write about evolution and changes in the Universe but the Big Bang theory was out of the equation because the Big Bang was an act of God and it was the moment in which He had created the Universe. Hawking was very happy because the Pope did not know what his participation in the conference had been about, he did not want to suffer Galileo's faith with regards to the Roman Catholic Church. He also commented that he was sympathetic to Galileo's ideas which were revolutionary at the time and because he had been born three hundred years after him (38).

In 2014, Hawking let the world know that he is an atheist and that there is no God or any other supreme being ruling the Universe (39). Apparently, he came a long way and gave a lot of thought to this decision before making it public. He has never spoken about God or anything related to God in any of his books. But he does speak about the Big Bang and the laws and rules which govern the Universe and all that is within it. He says that he does not believe in God and that even if God did exist, He would not be able to interfere with the Universe. In 1988 after he released his book "A Brief History of Time" he said, "If we do discover or confirm a complete theory about the creation of the Universe, it should be understandable in its broad principles by everyone and not just a handful of scientists. When this happens all of us, philosophers, scientists ordinary people will be able to partake in the discussion of why the Universe and ourselves exist. If we are able to find the answer to that question, it will be the ultimate triumph for human reason, for then we would know the mind of God"(40).

Hawking then refers to Einstein's criticism of quantum physics when Einstein says, "I want to know God's thoughts – the rest are mere details" (41). Hawking's answer to Einstein is, "this is possible through the Advance of science and through the unification of theories and beliefs, especially with regards to the Theory of Relativity and Quantum Mechanics.

In his book “A Briefer History of Time” published in 2005, which is the continuation of his book “A Brief History of Time”, Hawking and his colleague Mlodinow are skeptical about the whole situation. In the new book, they say, “It would be very difficult to build a complete, unified theory about everything that happens in the Universe with one stroke. This is why we have made we have already made some progress by coming up with partial theories” (42). They also mentioned the role God play in the Universe. They say, “God may have originally decreed the laws of Nature but it appear that after that He has allowed the Universe to evolve by itself and does not intervene any more. How did He decide on the initial configuration and state of the Universe? What were His boundaries and conditions at the beginning of time? In classical general relativity, this is a problem, because classical general relativity breaks down at the start of the universe.”

Hawking makes an effort to embrace the Vatican’s recommendation from what he says above as he gives God the role as a regulator of boundaries. Suddenly he changes his mind and goes the other way, he says, “If there is no boundary to space and time, there is no need to specify the behavior at the boundary between them—no need to know the initial state of the universe. There is no edge of space-time at which we would have to appeal to God or some new law to set the boundary conditions for space-time. The boundary condition of the Universe is that there is no boundary. The universe would be completely self-contained and not affected by anything outside itself. It would neither be created nor destroyed. It would just BE. As long as we believed the universe had a beginning, the role of a creator seemed clear. But if the universe is completely self-contained, having no boundary or edge, having neither beginning nor end, then the answer is not so obvious: what is the role of a creator?”(43).

In reality, if the universe has no boundary; the role of the God is not clear.” In the theory of everything, he speaks about the Big Bang and the Theory of Relativity as a single point but in quantum physics it is a regular point “quantum mechanics allows the universe to have a beginning that is not a singularity. That means that the laws of physics need not break down at the origin of the universe. The state of the universe and its contents, like ourselves, are completely determined by the laws of physics, up to the limit set by the uncertainty principle.” and he continues to says “if the universe is really completely self-contained, having no boundary or edge, it would be neither created nor destroyed. It would simply be. What place is there for a creator?” (44). Here Hawking has shown that if the General Relativity Theory fails with the Big Bang, and people, like the Pope at the Vatican think that this is God’s place; then it is not true that if a theory fails another theory presents a new alternative.

In their book “The Grand Design” published in 2010, Hawking and Mlodinow come forward with a new theory. The new theories explain that all phenomena in the Universe and beyond, obey certain physics laws and it is impossible to disobey these laws. There is no God and there are no supernatural happenings or phenomena that can disturb or change these laws. In the last chapter they say that, “astronomical bodies like the sun, the moon and the planets are subject to

specific, established laws and not to the arbitrary whims and caprices of gods or demons. These laws are perpetual and remain at all times or they wouldn't be laws. There are no exceptions or miracles, Gods or demons could not intervene in the running of the Universe" (45).

With regards to the Grand Design, Hawking and Mlodinow say that the religious beliefs about the origin and behavior of the Universe are totally wrong, that reality is something completely different. Their opinions depend on the evolution of many different parts of other theories which have been around for some time now. Since the value of negative and positive energies is equal and cancels itself, then the Universe has no energy because they cancel each other. This means that the religious vision and theories about the beginning of the Universe are wrong; the Universe is and has always been, it was not created and it will not be destroyed, it just is. Everything in the Universe including its origin, however it came to be, obeys certain laws of physics and these laws are also forever, they cannot be changed or disobeyed or ignored because like the Universe they simply are and have been since the beginning of time.

4. Discussion & Conclusions

The supernatural has its place in physics as do all the things that affect the Universe in one way or another. I have mentioned the opinions and theories of many of the renowned physicists of our time and the past and most of them have considered or have believed at one time or another in the supernatural and in a Supreme Being that rules over the Universe which He created. The supernatural is something that is difficult to explain because the truth is that we call things supernatural and we do not have the ability or knowledge to explain how or why these things happened or did not happen. It is a habit long ingrained into our brains which is difficult to discard until the reason for the phenomenon to take place is discovered and studied and come to terms with the fact that it was nothing supernatural from the beginning.

Hawking is one of the scientists who said that there is nothing supernatural about the Universe, that there is no Supreme Being and that the Universe simply obeys a set of rules which were set when time began. He believes that there is no creator because there was nothing to create; the Universe has always been as it is. Hawking has said many times, publicly and privately that there is no God that He does not exist nor has He ever existed. These are his convictions which he describes and speaks about in his books. They are his personal and scientific opinions. He believes in Galileo's method and convictions and he is ready to stand by them. He speaks of God as if He was nothing because he measures God in terms of energy and actions against reactions therefore nullifying any positive or negative effect that He could have over the comings and goings of the Universe. Most materialist scientists take and use the information that best suits their theories instead of trying to find the real answers. Einstein did basically the same thing when he said that God does not throw the dice to decide which way an electron would go.

All the ideas and opinions which have been coming from science have served a purpose. This purpose is for men to continue their search for the true, final answer. Where did the Universe come from? Has it always been as it is? How old is it? Why are we specifically on Earth and not somewhere else? Whether there was a Big Bang and whether there is or there is no God, these are questions that have plagued Humanity forever. All these different ideas and theories have brought up a new possibility, the scientific God, the perfect combination of both worlds that can finally bring peace to the world of physics and science in general (46-47).

References

1. David F. Ford, "An Interfaith Wisdom: Scriptural Reasoning Between Jews, Christians And Muslims", *Modern Theology*, VOL. 22, Issue 3, pages 345–366, July 2006.
2. James Barr, "Pre-scientific Chronology: The Bible and the Origin of the World", *PROCEEDINGS OF THE AMERICAN PHILOSOPHICAL SOCIETY*, VOL. 143, NO. 3, SEPTEMBER 1999
3. Alexei V. Nesteruk, *The Universe as a Saturated Phenomenon: The Christian Concept of Creation in View of Modern Philosophical and Scientific Developments*, *Theology and Science*, VOL. 12, Issue 3, 2014.
4. E. W. Strong, "Newton and God", *Journal of the History of Ideas* VOL. 13, No. 2, pp. 147-167, April 1952.
5. Jing GAO , Ning PAN , Weidong YU, "A Fractal Approach to Goose Down Structure", *International Journal of Nonlinear Sciences and Numerical Simulation*, 7(1) 113-116, 2006
6. H. Hossieni et al," From quintessence to spookiness: evolution of supernatural in physicist mind", *European Journal of Science and Theology*, volume 12 No.6 pp 41-53 (2016).
7. H. Hossieni et al. "Heisenberg uncertainty principle and Kant philosophy, Why Hawking thinks Philosophy is dead", *Latin American Journal of Education Physics* (2016)
8. Werner Heisenberg, Arnold J. Pomerans (translator), "Physics and Beyond: Encounters and Conversations", Chapter 10, Harper & Row, Publishers (1971).
9. Mark A. Stone, "Chaos, Prediction and Laplacean Determinism", *American Philosophical Quarterly* Vol. 26, No. 2 (Apr., 1989), pp. 123-131
10. Gad Freudenthal, "The Cambridge History of Jewish Philosophy From Antiquity through the Seventeenth Century", CH. 10, PP. 301-355, Cambridge University Press (2009).
11. Hans Kelsen, "The Philosophy of Aristotle and the Hellenic-Macedonian Policy ", *International Journal of Ethics* Vol. 48, No. 1 (Oct., 1937), pp. 1-64.
12. C. J. De Vogel, " Platonism and Christianity: A Mere Antagonism or a Profound Common Ground?", *Vigiliae Christianae* Vol. 39, No. 1 (Mar., 1985), pp. 1-62
13. Stephen Frederic Dale, " Ibn Khadun: The Last Greek and The First Annaliste Historian", *International Journal of Middle East Studies*, Vol. 38, Issue 03, August(2006), pp 431-451.
14. John collier, "Against Miracles", *Dialogue*, Vol. 25, Issue 02, summer (1986), pp 349-352.
15. E. Theodosiou , V. Manimanis and M. S. Dimitrijevic, "The Inconvenient Relation Between Religion And Science: The Prevalence Of The Heliocentric Theory", *European Journal of Science and Theology*, September (2010), Vol.6, No.3, 47-56.
16. Winifred Lovell Wisan, "Galileo and God's Creation ", *Isis* Vol. 77, No. 3 (Sep., 1986), pp. 473-486.
17. Stephen D. Snobelen, "'God of Gods, and Lord of Lords": The Theology of Isaac Newton's General Scholium to the Principia", *Osiris*, Vol. 16, *Science in Theistic Contexts: Cognitive Dimensions* (2001), pp. 169-208.

18. Webb, R.K. ed. Knud Haakonssen. "The emergence of Rational Dissent." *Enlightenment and Religion: Rational Dissent in eighteenth-century Britain*. Cambridge University Press, Cambridge: (1996). p19.
19. Newton, 1706 *Opticks* (2nd Edition), quoted in H. G. Alexander (1956) (ed): *The Leibniz-Clarke correspondence*, University of Manchester Press.
20. Scott Mandelbrote, "'A duty of the greatest moment': Isaac Newton and the writing of biblical criticism", *The British Journal for the History of Science* / Volume 26 / Issue 03 / September 1993, pp 281-302.
21. Maurice Crosland, "A Science Empire In Napoleonic France", *Hist.Sci*.xliv(2006).
22. Hahn, R., Laplace's first formulation of scientific determinism in 1773. *Actes XIe Congr. Intern. Hist. Sci.* 1965, t. 2. Wroclaw,(1967), pp. 167–171
23. J. M. Jauch, "Determinism in Classical and Quantal Physics ", *Dialectica*, Volume 27, Issue 1, pages 13–26, March (1973)
24. Michael A. B. Deakin, "Nineteenth century anticipations of modern theory of dynamical systems", June 1988, Vol. 39, Issue 2, pp 183–194
25. Margenau, Henry. "Meaning and Scientific Status of Causality." *Philosophy of Science* 1.2 (1934): 133-48. Web.
26. Eftichios Bitsakis, "Quantum statistical determinism", *Foundations of Physics* March (1988), Volume 18, Issue 3, pp 331-355.
27. L.E. Ballentine, "The Statistical Interpretation of Quantum Mechanics", *Review of Modern Physics*, Vol.42 Num.4 October(1970).
28. Amir Aczel, "Entanglement: The Greatest Mystery in Physics", ch. 11, Raincoast Books, (2002).
29. Jeffrey Koperski, "God, Chaos, and the Quantum Dice", *Zygon*, Vol 35 Issue 3, 7 JAN (2003).
30. D. Overbye - *New York Times*, 2008 - the-evan.com
31. Michelle Jeandron, "Record bid for Einstein letter", *Physics World*, Volume 21, Number 06 (2008)
32. Michel Paty, "Einstein and Spinoza", *Spinoza and the Sciences*, Vol. 91 of the series Boston Studies in the Philosophy of Science pp 267-302.
33. Einstein A, Podolsky B, Rosen N (1935). "Can Quantum-Mechanical Description of Physical Reality Be Considered Complete?". *Phys.Rev.*47 (10): 777–780.
34. Alain Aspect, "Bell's inequality test: more ideal than ever", *Nature* 398, 189-190 (18 March 1999) | doi: 10.1038/18296
35. Kristine Larsen, *Stephen Hawking: a Biography*, pp.1, Greenwood biographies, (2005).
36. Jane Hawking, *Travelling To Infinity, My Life With Stephen*, Ch. 5, Alma Books (1999).
37. Jane Hawking, *Travelling To Infinity, My Life With Stephen*, Ch. 3, Alma Books (1999).
38. S. Hawking, *The theory of everything*, fifth lecture, pp 79, *Phoenix Books*(2005).
39. D Mosbergen, "Stephen Hawking Says 'There Is No God': Confirms He's An Atheist", *The Huffington Post*,(2014).
40. S. Hawking, *A Brief History of Time*, ch. 12, Banram book (1988)
41. Stephen B. McSwain, *The Enoch Factor: The Sacred Art of Knowing God*, pp.82, Smyth&Helwys Publishing(1984).
42. S. Hawking and L. Mlodinow, *A Briefer History of Time*, ch.11 Bantam Press (2005).
43. S. Hawking and L. Mlodinow, *A Briefer History of Time*, ch.9 Bantam Press (2005).
44. S. Hawking, *The theory of everything*, fifth lecture, pp 102, *Phoenix Books*(2005).
45. S. Hawking and L. Mlodinow, *The Grand Design*, ch.8 Bantam books (2010).
46. Daniel Lazich, "How Science Discovered God", 1989 - cienciayreligion.org
47. Himangsu S. Pal, "If God Created Universe, Who Created GOD?", *Scientific GOD Journal*, December (2010) , Vol. 1, Issue 8, pp. 582-584.