

The Big Bang Theory As A Premise In A Cosmological Argument For God's Existence

GBADAMOSI Oluwatoyin Adebola (Ph.D)

Department of Religious Studies, University of Ibadan,
Ibadan, Nigeria

Abstract: *Proving that God exists remains a vital subject for both theologians and philosophers over the centuries. For this problem to still continue to generate intense discourses in contemporary circles shows the seriousness of the issue. However, the treatise on God's existence has taken a new turn in recent decades as contemporary scholars are finding bases of a relationship between religion and science. This paper focuses on this new turn of events by discussing how the Big Bang Theory, which is a scientific discovery, has a positive implication for theology. This is done by discussing the meaning of cosmological argument and how it has featured in the history of natural theology. This paper focuses also on what the Big Bang Theory entails and how it has been used to prove that God exists. This paper discusses also the problems associated with adopting a scientific model for a metaphysical position. These are some of the issues this paper seeks to address, while employing John Polkinghorne's critical realism which holds that science and theology complement each other.*

Keywords: *Big Bang Theory, Natural Theology, Cosmological Argument, God's Existence.*

I. INTRODUCTION

The connection between the religion and science dates back in history and it is also of high contemporary importance because of scientific curiosity which often challenges traditional religious beliefs. History reveals to us the role science has played in challenging previous established beliefs in religious circles. Scientific discoveries have repudiated some established religious beliefs from the scriptures such as the shape of the earth which Galileo challenged, the claim that the sun stopped moving at the command of Joshua and several other beliefs that are no longer credible based on scientific findings. The fact that some religious claims have been repudiated by scientific discoveries have further challenged other religious beliefs especially, God's existence. This has created a serious reason to offer rational elucidations on God's existence, which is the business of natural theology.

Natural theology is the attempt at knowing the veracity of theism or God's existence independently of any religious claim or authority. Ontological arguments, cosmological arguments and teleological arguments or arguments from

design are the major types of arguments popularly used in natural theology to prove God's existence. Recently, two other types of arguments; moral arguments and arguments from religious experience also feature in natural theology. In contemporary discourses, natural theology is tilting towards some scientific finding, especially those that have positive implications for theology. Although the history of religion and science reveals a stormy relationship between the two fields, where scientific repudiations have been basis for atheology, scientific findings are recently becoming useful in theological circles. This paper discusses this interesting turn of events, which is using the Big Bang Theory as a premise in the cosmological argument for the existence of God, and in doing this, there is a discourse on cosmological arguments. The main thrust of this paper is the Big Bang Theory as a cosmological proof for the existence of God. This is done by discussing the meaning of the Big Bang Theory and also discussing how it is used as a premise for the existence of God. Subsequently, as this study is a philosophical discourse, the general strengths and weaknesses of the Big Bang Theory as a cosmological proof of God's existence are also examined.

II. COSMOLOGICAL ARGUMENT FOR THE EXISTENCE OF GOD

The cosmological arguments assert that the world or cosmos, and its contents hinge on something or some force for its existence, claiming further that this force or “something” is God. Therefore, He exists. The main idea of the cosmological argument is that the sheer existence of the world demands a cause and that a supernatural being must exist to account for the world. The cosmological arguments have been credited to ancient Greek philosophers such as Plato and Aristotle. Plato reasons from the existence of a craftsman to the existence of something which accounts for change in the world. Aristotle holds that we need to seek for the causes of things including things such as earthly and celestial motion. The medieval philosopher, Thomas Aquinas made the argument quite famous. Other philosophers such as Duns Scotus, Samuel Clarke and Gottfried Leibniz have also made use of the cosmological argument, while Richard Taylor and Richard Swinburne among others have used it in contemporary discussions on the existence of God.

Thomas Aquinas’ cosmological arguments are quite popular, and they are famously known as the first three of his five proofs or arguments for God’s existence. They are; the unmoved mover, the uncaused efficient cause and the necessary being or his argument from contingency. The first way or proof of Aquinas is the argument from motion or movement. For Aquinas, motion means changes in any form. He argued that nothing can simultaneously be the mover and the moved, certain things are in motion, while others are at rest. Something must have started the motion; this itself must have been set in motion by something else. We cannot go on *ad infinitum*. The series of moved movers thus implies an unmoved mover, a mover that is not itself moved by anything else, and this, the argument concludes, should be no other person, but God. Aquinas’ second way is from the notion of the efficient cause, sometimes called the aetiological argument. It is the principle of one thing causing another. Aquinas argues that there is a hierarchy of causes; a cause is subordinate to or dependent on the cause above it in the hierarchy. As in the first proof, we cannot go on indefinitely in our postulation of causes; therefore, it makes it essential to acknowledge a first cause which itself is not caused by anything. This first cause, Aquinas argues, must be God. According to John Hick (1963), the third way of Aquinas is identified as the argument from contingency of the world. This argument often monopolizes the term, cosmological argument. This argument holds that everything we see in the world is contingent, that is, might or might not have existed, or might have existed differently from what we see. Aquinas therefore argues that, if everything in the world were contingent, this means there must have been a time when there was nothing in existence. Since we have things in existence, it is pertinent to admit that there is something else that is not contingent, which brought other things into existence, which we identify as God.

The cosmological argument of Aquinas was severely criticized by David Hume and Immanuel Kant among others. What was responsible for the movement of the first mover? What was the cause of the first cause? A necessary being that is not contingent does not could be something else and not

necessarily God. These and other similar issues were raised in reaction to the argument of Aquinas. Subsequent and more developed versions of the cosmological argument appeal to a more general principle called the Sufficient Reason, according to which no fact can be real or existing unless it has sufficient reason to be so and not otherwise. The contingent has causes, which ultimately explains that any contingent fact must stand outside contingent causes. The ultimate cause must be a necessary being and in order to avoid the major weakness in Aquinas’s argument, contemporary authors have qualified this necessary being as the “Being that has the reason for its existence in itself”. The general idea of cosmological arguments, especially in contemporary discussions, is that, an appeal is made to the notions that the cosmos is contingent and the reason for its existence does not appear to be within the cosmos itself. The cause of the cosmos, therefore, should be something else that cannot but exist – God. Although this line of thought looks urbane and more refined than Aquinas’s presentation, it is not totally free from its in built assumptions which weaken the main conclusion of the argument. One of this is labeling the final non-contingent being God. This is quite problematic; however, since this is not the main focus of this paper, it will be needful not to dwell on this subject for brevity of space.

The entrance of science to the age long quest for an answer to the question of God’s existence has reconstructed the traditional cosmological argument to prove God’s existence. A premise from the domains of the sciences, which is the Big Bang Theory, is now being used to explain the existence of God. According to Krugh, H. (1999), “in the relatively brief period from about 1920-1970, cosmology changed dramatically, first of all, as a result of Einstein’s general theory of relativity. Secondly, the subject – cosmology – has become established as a science although not removing itself completely from religion and philosophy.” (Krugh, H. p ix) As the meaning and interpretations of the grandiose word universe or cosmos is changing and becoming more material with the aid of empirical data, so also is the approach of theologians or scientists with religious inclinations on the subject of God’s existence changing. Scientific cosmology is now employed as a tool in proving God’s existence. Scientific hypothesis on the derivation of the cosmos developed into the Big bang Theory is becoming useful as a premise in the cosmological argument for God’s existence. Before proceeding, it will be necessary at this juncture, to explain the Big Bang theory.

III. THE BIG BANG THEORY

In recent years, interesting studies in physics and astronomy have led to astounding theories on the history and origin of the cosmos. Today, scientists genuinely believe that world is a product of a massive explosion that happened about fifteen or fourteen billion years ago. The central element of the Big Bang Theory is the belief that the universe developed from an extremely hot, thick state around 14 billion years ago, and this mass has been going through cooling and expansion from that time. This idea has been firmly established from other independent measurements. The Big Bang Theory

maintains that, in an instant an extremely small fraction of a second, after the Big Bang, the universe expanded with a great speed from the pebble-size it was originally to what it is now.

This history of the steady acceptance of Big Bang theory of the cosmos started with the arguments of the Belgian Priest, Georges Abbe Lemaître, George Gamow, and other scientists towards the late 1920s and early 1930s. Abbe Lemaître made use of the relativity theory of Albert Einstein and he combined it with Edwin Hubble's astronomical observations to propose his own theory that the universe is evolving in time from a "primeval atom," a super-dense state of matter that "exploded" somehow. If we live in an expanding universe as Hubble's results suggest, what then did the universe look like in the past? To answer this question, Bortz (2014) suggests reversing the motion like viewing a movie in the reverse. In the movie running backwards, an expanding universe becomes a contracting universe (since it is a reverse motion, rather than expanding, the universe would be contracting). Eventually, it reaches a time in the distant past, which can be called Time Zero, where everything was at a single point. It must be noted at this point, that this Time Zero has a significant meaning and implication –the universe has a definite beginning. Bortz goes further to explain that at Time Zero, space, time and all the matter in the universe came into being in a great explosion and began expanding, and that great explosion is called "The Big Bang." The focal point of Hubble's astronomical observations suggests that the universe was expanding in size, and this notion leads to two conflicting hypotheses. The first one is Lemaître's Big Bang, which was promoted and advanced by George Gamow. The second hypothesis is Fred Hoyle's Steady State Theory. This is the idea that matter is created as the galaxies became separated from each other. It was Hoyle who actually coined the name, "Big Bang" in reference to Lemaître's idea when he was on a radio broadcast on 28 March, 1949, during a BBC Third Programme.

Karen Fox (2002) presents an interesting summary of the Big Bang Theory. According to her account, there was nothing in the beginning; it was "nothingness". During this time, packs of energy migrated in and out of existence. Everything, space and time and all were created in an instant, and after the slowing down of energy, there was a cooling, which froze to become matter. The infant universe has been going through expansions for a long period of time, making particles to coalesce into planets, stars and ultimately into human beings. The Big Bang Theory is an enthralling discovery in the field of science which has serious affirmative implication for theology. If there was a Time Zero when everything we see in the universe came into existence, then it obviously means the universe had a beginning. If the universe had a beginning, then *something* or *some force* must be responsible for bringing the universe into existence. This puzzle is the focal point of the Big Bang Theory, as a premise in a cosmological argument for the existence of God. This has been interpreted and explained differently by different scholars.

The astronomer Jastrow, in Dress's account (1990), describes the scientific expeditions resulting into the Big Bang Theory as "climbing the same peak as theology", the theologians having reached the summit first. A major question is, whether scientists and theologians are climbing the same peak? This is a complex question laden with ambiguities.

However, for the sake of this paper, the answer would be in the affirmative. If it is then agreed that theologians and scientists are climbing the same peak –a search for the cause of the existence of the universe, how then are scientists undertaking this task? This question may take another form-how can the scientific expenditure in the Big Bang Theory be a route to the destination of the theologians; which is a search for the Ultimate Reality behind the existence of the world? Answering this question(s) ultimately leads to the Big Bang Theory as a premise in the cosmological argument for God's existence and John Polkinghorne's critical realism would be employed to answer this question. The view of Polkinghorne is similar to the methodological bridge of Ian Barbour (1971) between science and religion, which is Critical Realism. Critical Realism produces a meeting point between religion and science.

IV. BIG BANG THEORY AS A PREMISE IN THE COSMOLOGICAL ARGUMENT FOR THE EXISTENCE OF GOD

- ✓ The Big Bang Theory is the notion that the universe is a product of an extremely hot, thick state around fourteen or fifteen billion years ago, which has been going through expansion and cooling from that time.
- ✓ This idea has been decisively established through some other measurements.
- ✓ If there was a Time Zero when everything we see in the universe came into existence, then it obviously means the universe had a beginning.
- ✓ If the universe had a beginning, then something or a force must be responsible for bringing the universe into existence.

The argument above is a model of a reduction of the foregoing discussions of this paper to syllogism which may be labeled Model Argument. This is a deductive argument. A deductive argument according to Oladipo (2013), is one in which the premises are claimed to provide conclusive grounds for their conclusion. If the premises are accepted, the conclusion must also be accepted. To accept the premises and deny the conclusion is to court a logical contradiction. If this argument is a deductive argument, one may proceed to determine its validity. Validity is determined from the form or structure an argument has. The premises of a valid argument guarantee the conclusion of such an argument. It is therefore not possible, to have a valid argument which has true premises but a false conclusion. Truth is another matter entirely and its determination is a different task altogether, especially on a subject of this nature. However, an attempt to establish the truth of the first two premises has been the business of the earlier part of this paper. If the premises are true, which follows from the obvious position of this paper, then with logical necessity, the conclusion follows, and cannot be false, that is, "something or some force" must be responsible for the universe.

What then is the theological implication of the Model Argument stated above? If something or some force must be responsible for the universe, this makes more sense theologically as a metaphysical explanation becomes

necessary, that is, if the final conclusion is understood metaphysically. Whatever begins to exist, definitely has a cause, an effect cannot precede a cause. This cause, if employed theologically, is something beyond the physical world. According to Jaki, in Dress's account (1990), without this metaphysical assumption, scientists cannot give a final explanation, but commit the fallacy of infinite regression. He uses God where the scientific explanation stumbles upon something apparently unexplainable, introducing God as the boundary formed by our present scientific ignorance. The employment of The Big Bang Theory as a premise in a cosmological argument for God's existence, like any philosophical enterprise, is bound to have strengths and weaknesses. The following arguments display the different models in which the Big Bang Theory has been adopted as arguments for and against God's existence which highlight the strengths and weaknesses of the Big Bang Theory as a premise for God's existence.

A. MODELS OF ARGUMENTS THAT ADOPT THE BIG BANG THEORY AS A PREMISE FOR GOD'S EXISTENCE

Scholars like William Carroll (1988) believe that the contemporary thoughts on physics as regards the history of the universe serve as a good cause of encouragement for some believers to hold the Big Bang description of the origin of the cosmos as consistent with the creative account of the scriptures. It is also seen as a confirmation or what could be called a scientific proof for God's existence. The Big Bang theory is thereby seen as having an assured rational respect towards a major Christian tenet on the creation of the universe. Graig and Sinnott's (2004) line of thought simply holds that science, in the Big Bang Theory, serves as a confirmation to the central tenet of Christianity on what led to "the beginning" when everything was created. A succinct description of the Big Bang Theory within the context of a cosmological argument is as follows: anything that begins to exist definitely has a cause. Since the universe began to exist, it therefore has a cause. This argument is a valid one, even though a creator is inferred from its conclusion, since something cannot be a product of nothing. It is therefore posited theologically that it is only a supernatural being that could be responsible for the existence of the world. The summation of the Big bang theory from a theological point of view is that once it is agreed that the world had a beginning, then, it is line to further agree that it also had a creator, which is held to be God. Edwards (2001) also shares this view of Graig and Sinnott that the Big Bang Theory serves as a confirmation to the tenet of Christianity on the beginning of the universe. Edwards however, presents a more assertive description of God's role in the starting point of the universe. He states simply that theistic cosmology affirms that God caused the Big Bang and that God is the necessary condition for its occurrence. According to Edwards, this claim that God caused the big bang is true only if God exists. Edwards goes further to support the belief that God exists, while making references to rational traditional philosophical arguments for God's existence, such as the teleological and cosmological arguments. These two arguments for God reason from something that is known to be

true of the world through sense experience to the existence of a transcendent Ultimate Reality who best accounts for that "something." And in this case, the "something" is the Big Bang.

In another account, according to Hoffman (2013), even if all the matter in the universe were compressed to the size of a pea at one time, something had to happen to cause it to explode (Big Bang) or come into creation (God). Without something to initiate, there is no reason for it to have happened. Saying it spontaneously happened does not explain anything. Hoffman's argument is a very logical one; one cannot accept the effect and deny the cause. On the basis of this argument; this cause would have to be uncaused, eternal, changeless, timeless and immaterial agent who decided freely to create "an effect".

Peter Stoner, an astronomer and geologist, in the narrative of Dress (1990) offers another theological argument from the Big Bang theory. He confirms the verse of Gen.1:2 about the Earth being "without form and void" as well as the "darkness upon the face of the deep". This, according to Stoner, refers to a "dark nebula" which is the origin of our solar system. This is another way in which scientific events surrounding the Big Bang Theory is used to corroborate biblical accounts of the origin of the world. In a similar note, according to Jones (2012), the event of the Big Bang is compatible with the creation story of Genesis. The Big Bang Theory seems from the biblical point of view, as what the theists treat as "in the beginning" both scenarios share a beginning point in time. The scientific account however requires a miracle to explain where the material that "banged" came from.

On a different note, some creationists, known as the Young Earth Creationists, hold a contrary belief to scientific claims on the age of the earth which threatens the conclusion of the Big Bang theory. They believe that the earth is only a little over 6,000 years old. This date is calculated by ages given in the Bible from Adam through many generations of his descendants. On a contrary note to the common scientific method used to calculate the age of the universe is Hubble's constant. Hubble's constant reveals that the current accepted age of the universe is between 13 to 14 billion years old. How then do we reconcile, these two positions and maintain that both are correct especially from the perspective of someone trying to prove God's existence from the Big Bang Theory. Hoffman (2013) believes this is a very simple task, and that the answer is in the Bible. According to him, the answer is Time. The Bible says "one day with the Lord is as a thousand years, and a thousand years as one day", God's length of time is different from man's own and time has no meaning to God. This is an interesting summation and it involves simple mathematics and Hoffman has succeeded in a way to offer a simplistic reconciliation of both conflicting positions and arrive at the same conclusion – God is responsible for the Big Bang.

However, Wickman (2014) opines that this new evidence which is the Big Bang Theory firmly proposes that the world had a beginning. Since the world had a beginning, the basic logic of 'cause and effect' implies that there must have been an agent, a creator, who was outside of the effect. This is analogous to Genesis 1:1: "In the beginning God created the heavens and the Earth." Wickman claims further that it should

be known that the revelation of God is from both the Bible and the creation of God. We are faced with the challenge of the relationship between the two. A clearer knowledge of these two will aid the understanding of their relationship. If God is indeed the creator, he would ultimately make Himself known from His creation, and science is the means through which these wonders can be revealed.

Pope Pius XII provides a consummate proof for the existence of God from modern science while making references to the Big Bang Theory. He does this by elucidating on the importance of the scientific evidence for theology. According to him, science, through detailed research has provided empirical premises for God's existence. He concludes his address at the Pontical Academy of Sciences in 1951, thus:

"Creation took place in time. Therefore, there is a Creator. Therefore, God exists! Although it is neither explicit nor complete, this is the reply we were awaiting from science, and which the present human generation is awaiting from it. It is a reply which bursts forth from nature and calm consideration of only one aspect of the universe; namely, its mutability". Pope Pius XII (1951)

There is another rather hilarious account, from a bumper sticker: "God said BANG! And it happened" It is quite obvious that whoever is responsible for the sticker believes that God is ultimately responsible for the Big Bang. No matter how fascinating the arguments to prove God's existence from the Big Bang Theory are, there is another school of thoughts that is not so optimistic. This school of thought believes that The Big Bang Theory lacks credibility in proving God's existence.

B. MODELS OF ARGUMENTS AGAINST THE ADOPTION OF THE BIG BANG THEORY AS A PREMISE FOR GOD'S EXISTENCE

The major weakness in using the Big bang Theory as a proof for the existence of God is the nature of science and its methods. Science is an activity, a way of persistent questioning and doing research. Its answers are revisable, not final. The Big Bang Theory is not science's definite answer. Since knowledge is not static but dynamic, another scientific discovery may emerge that would lead to the revision of the Big Bang Theory, if the premise is then subject to revision, then the conclusion is affected, which may lead to the ultimate collapse of the argument. The nature of science as a discipline is continuous and future knowledge may question the basis of the Big Bang Theory, therefore having serious implications for its use as a proof of theism. This position implies the issues inherent in the adoption of a scientific premise—the Big Bang Theory for a metaphysical conclusion—God's existence.

Hartnett and William (2005) have made a rather strong case in dismantling the Big Bang Theory in proving God's existence. According to them, the Big Bang Theory does not work. They present four reasons to reject the Big Bang Theory as a Proof of God's existence as follows: (a) Expanding clouds of gas do not spontaneously reverse their expansion (the basis of the Big Bang Theory) and collapse into the kinds of objects that we observe in the real universe around us today. (b) The Bang Theory lacks a credible and consistent mechanism, there

is no known mechanism that started the universe expanding out of the singularity. (c) Chemical evolution of life eventually leading to intelligent life (d) science cannot produce any final answer on the subject of origin, science works in the present by observation and experiment, it has no direct access to the past. Some of these positions may be valid, however, some of the positions may be argued. The unknown mechanism may be interpreted as the basis for the metaphysical assumption that there is a force beyond the physical which is responsible for the expansion of the Universe which has been identified as God.

The basis of adopting a scientific model for a theological claim is seen in some quarters as a compromise; this is an attitude in which no side actually loses. However, it is believed that compromise positions are neither good science nor good theology. Nonetheless, this is the approach this paper tends towards, it would however not be called a position of compromise, but a bridge between science and theology using the critical tools of philosophy which Ian Barbour calls Critical Realism. According to John Polkinghorne, (2011) "the gift that religion has to offer science is not to answer its questions but to take science's insights and set them within a broader and deeper context of intelligibility". Critical realism reveals that science and theology complement each other rather than being rivals on the same issue. Both fields share a common quest for truth, making them friends and not foes as it easy to wrongly classify them as such. Each field has gifts to offer the other. Science gives the gift of knowledge on the nature and history of the universe, as the case of the Big Bang Theory and theology. This knowledge complements the background belief in theology which sees the cosmos as a divine creation. Science in the Big bang theory explains the processes involved in the formation of the cosmos while theology explains the purpose of the cosmos.

V. CONCLUSION

This paper discusses the role of Big Bang Theory as a premise in a cosmological argument for the existence of God. This is done by discussing the nature of cosmological argument and its meaning. The main idea of the cosmological arguments is that the sheer existence of the world demands a cause and that a supernatural being must exist to account for the world. This paper shows that how scientific cosmology is employed as a tool in proving God's existence; this is the hypothesis on the origin of the cosmos developed into the Big bang Theory. As it has been discussed, the focus of this study is the Big Bang Theory and how it is used as a premise in a cosmological argument for God's existence, starting from the meaning of the Big Bang Theory to the reduction of the contents of this discourse to syllogism. The different models of arguments in which the Big Bang Theory features for and against God's existence were also analyzed in this paper.

In conclusion, the greatest strength of the Big Bang Theory as a premise in a cosmological argument is the conclusion of such a cosmological argument. This is because it is challenging and indeed a colossal endeavor, to deduce a metaphysical conclusion in this case God's existence, from a naturalistic milieu, that is, science. However, the Big Bang

Theory, as well as any other scientific idea, must be cautiously applied. One major reason for caution is that knowledge is not static; this situation means that the conceptions surrounding the Big Bang Theory might change by another new discovery, which creates a new paradigm. If that happens, the whole argument in which the Big Bang Theory is employed as a premise will suffer. Nonetheless, until that time emerges (if it ever does) the Big Bang Theory can suffice as a premise in a cosmological argument for the existence of God. In addition to this fact, Theology provides answers to the question science cannot account for due to limits of scientific inquiry. It is therefore safe to be optimistic and accept the metaphysical conclusion of God's existence from the Big Bang Theory. On the whole, one can conclude with the words of Richard Swinburne (1979), thus, "on our total evidence, theism is more probable than not". Although the Big Bang Theory may not provide a total deductive proof of God's existence, it is definitely worthy to conclude that it provides a good epistemological basis for His existence.

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