

*Ask, and it shall be given you;
Seek, and you shall find;
Knock, and it shall be opened unto you.
(Matthew 7:7)*

1

First Principles and God

The author began his journey by looking into these four basic concepts: *space*, *time*, *nothing*, and *something*, all of which he thinks must be defined purely – as pure as their root meanings will allow. In the literature of science and religion, these terms have, as they seem to the author, often taken on or given distinctively restrictive sense. The word “nothing” for example has at times taken on the meaning of “no visible matter” and at other times the meaning of “absolutely nothing.” Both thoughts have at times been used interchangeably, therefore resulting in contradictory and confusing arguments when one is assumed whilst the other is meant. If these terms are capable of being defined in the most basic and rudimentary sense, can they then be used as common starting points in reviewing the many concepts in science and theology? In the author’s view, the basic sense conveyed by such terms must necessarily be left intact (in their root sense) if one is to delve into the very origin and nature of things. Verities can be masked by artificially restrictive definitions which hamper free flow of ideas that could lead to further discoveries beyond their confines.

It is commonly assumed in modern science (and accepted by mainstream theology) that *space* and *time* came into existence when the physical universe came into existence (following a “Big Bang” which is currently still a popular theory*¹ for the origin of the universe). Scientists have assumed that there was “nothing” beyond this initial period of time. Religionists however believed that there was a God “beyond space and time.” Whatever follows the Big Bang is considered solely adequate for scientific investigations. There is no need to explore what was before the Big Bang. This, to the author, is however a restrictive and inadequate view of space and time. For science to search for knowledge beyond its physical boundaries, such terms could and should be expanded to their root sense. Why should science limit itself? Some scientists in recent times have asked, what was the universe like before the Big Bang? Is the cosmos eternal or did time itself have a beginning?

Space

Things occupy space, we say. The basic idea of *space* is the void wherein objects occupy and also the void outside of those objects. It is the void that separates two or more objects (be they big objects like the sun and planets, small objects like a tree or a human being or smaller objects like the atoms and sub-atomic particles) and it includes the void in which all those objects occupy. How “big” is space? Is it endless? Lazing in my lawn under the tropical sky is my evening favourite pastime. One cloudless night, I looked up into the starry sky and imagined myself travelling in a spaceship towards the moon, moving on past it to the distant planets and onwards to the stars and beyond,

even to the farthest galaxy imaginable. I asked myself whether I would reach the end of Space... No, no matter how hard I tried, I could still go on and on and on. It might well be my imagination, or lack of it, but I could not think of Space with a border or limit. For, if Space has a border, what is beyond that border but space? Space exists beyond the furthest galaxy, as I concluded. As a scientist-philosopher*² has said, “endlessness is a concept hardly perplexing to the mind, as it strikes us all (philosophers, scientists and laymen alike for thousands of years) as altogether reasonable and sensible.” It is the infinite and ever-existing “background” for things that exist. Any existent in space, however big or small, even the tiniest point, cannot be dimensionless (contrary to the mathematical assumptions of Quantum Science). This must be so, and I believe it can be reasoned out solidly.

In our galaxy of planets, if one of the planets disappeared (and this is possible if our current knowledge of cosmology is anything to go by), there is *space* along the path where that disappeared planet once orbited, even as there is *space* between and across the other planets. If all these planets disappeared, there is still *space* in the positions or the paths where all these planets once orbited. *Space* exists where there are no planets! *Space* exists where there is no earth and none of its conscious inhabitants! If all life on earth disappeared (a chilling thought this might be) it would be hasty to conclude that the whole universe would also disappear. In all likelihood, all the activities of the remaining universe will still go on, albeit without the terrestrial audience to observe and appreciate them. *Space* still exists where there is no observer! It follows also that *space* exists where there is no universe! By the same reasoning, *space* still exists where there is absolutely nothing to occupy it! Before the Big Bang there was space, and after the “Big Crunch” (if this happens) there will still be space. The existence of space is independent of the existence of any material to occupy or “fill” it (so to speak). If there were no things left to occupy Space, there would be nothing but Space! Space is what has always been and will always be — the shapeless, endless, borderless void or nothingness, with no intrinsic property of itself.

Space is not an entity but a backdrop for one. Space is conceived as a mere *spatial dimension* — a system of three co-ordinates or planes at right angles to one another and intersecting at an assumed reference point (the mathematical x-y-z axes). This is a realistic concept — a most basic one — that allows an entity (its size, shape, location and even motion) to be seen or visualised by the observer and measured from the axial reference point. In relation to an observer, a thing can move either left or right (the x-axis), up or down (the y-axis), forward or backward (the z-axis). *Space* is three-dimensional in its basic concept that also defines the volumes or sizes of the objects that are located in it, whatever the nature of the objects. Space provides a true concept of location.

A rock occupies space. An ice cube hard as a rock occupies space; water from the melted ice cube also occupies space; steam from the same water heated to water’s boiling point also occupies space. The atoms of steam, hydrogen and oxygen, likewise also occupies space; and whatever these atoms are made of (sub-atomic particles, however small) must also occupy space. Even electromagnetic, gravitational and nuclear forces occupy and move in space. These are three-dimensional things or energies (whether visible or invisible, continuous or discrete) and they occupy three-dimensional space. Any thought of space being more than ‘three-dimensional’ is just an abstraction — one which may be useful in more advanced mathematical models of

reality created by the fertile human mind – but which does not necessarily or actually reflect true reality. Reality is often masked by our unnatural mathematical models.

He stretches out the north over empty space, and hangs the earth on nothing.
(Job 26:7)

The above scripture indicates that Space is the void that forms the background for earth to exist. Even the direction of compass points (“the North” for example) projects into Space. In fact, *everything* that exists has Space as the background. Space is never too small to contain anything and everything that exist or will exist. Therefore, if God and other invisible beings exist “up there in heaven,” all these beings must necessarily exist *in* space, not outside of it, as space has no border. Heaven too has to be located somewhere in space, although it (or “heavenly places” as it is sometimes called) may be of a different nature than that of the physical universe; it is a realm still in space. Everything that exists is an occupant of space. *Nothing is outside of Space but Space. This must be taken as the first premise of knowledge, a self-evident truth.*

Vacuum

A *vacuum* is another basic concept that is similar in meaning to *space*; it is the “emptiness” within an enclosure devoid of air pressure or molecules of matter. Yet a vacuum may not be totally empty, according to modern science. It may contain something other than matter as we know it.

Nothing comes from nothing

It is not altogether clear whether science believes in matter coming out from nothing. Some scientists think that the sub-atomic particles come from “quantum fields” in the vacuum. There may also be an invisible ether (within the vacuum) which science has postulated earlier and still considered as a valid concept by some scientists. Yet some other scientists believe that matter is fundamentally made up of electrical and magnetic forces. Apparently, not all answers are known, but one underlying answer is clear: that “nothing comes from nothing” must hold true and is self-evident. This is another fundamental concept that we will return to again and again as it is a most important foundational concept that we must be thoroughly familiar with.

Time

Now, we take a look at *time*. Time is the duration of something(s) moving in relation to another i.e. time is sensed or defined when there is motion, whether regular or irregular. And we see and sense motion everywhere in the universe. The slow movement of the snail, the fast speed of the cheetah in chase of its prey, the dangling movement of tree leaves against the wind, the elegant flight of the seagull and the erratic flight of the butterfly, our very own breathing and heartbeat – all these are motions, and life. The observation and measurement of time are intimately linked with events such as these and others such as the movement of sand through the hourglass, the swinging of the pendulum. Regular motion (as in the “rising and setting

of the sun”) gives us a constant measure of time (in hours, days, years). Our experience gives us the sense that time is moving forward, not backward. We age. We cannot move back in the passage of time and become younger. This is the “arrow of time” that scientists talk about. Time and tide waits for no man, as the proverb goes. The passage of time is forward; it is irreversible. The concept of “time-travel,” that is, going backwards into history or going forward into the future is obviously a fantasy, entertaining though it may be as portrayed in novels and the movies. *Time* too, like *space*, is capable of a rudimentary or fundamental definition. The essential reference of time is motion, activity or vibration (cycles of motion).

Whenever there is motion (e.g. one particle, however small, moving in relation to another), there is *time*. This refers not only to the physical universe, but also to any non-physical universe or non-physical matter or subatomic particles. Time’s measurement here need not be the hour, minutes and seconds. We are not concerned with the units of measurement of time as seen on the face of a clock or other time-measuring device. We are concerned with the absolute meaning of time. Time is simply another aspect of activity or motion. There is truly *no time* if there is *absolutely no motion at all of any kind whatsoever everywhere* in space. However, this situation cannot obtain since we know from the discoveries in quantum science that the smallest particles/waves and forces that exist are always in motion. And it would be unreasonable to assume that beyond the smallest particles or waves, anything else that exist, if they exist, are all motionless. Else, there could be no action and reaction, no “cause and effect” because motion begets motion. All these concepts (action and reaction, cause and effect, motion begets motion) are derived from the basic axiom *ex nihilo, nihil fit* (‘nothing comes from nothing’). If motion has always existed, so has time.

Time and Motion

It is conceivable that a body somewhere in space may be absolutely still in relation to its position in space. It can be set in motion by being impinged upon by a contiguous or adjacent thing (or things) that must necessarily be in motion. It can also be set in motion by its own internal potential which is not a totally motionless state but an internal restrained force which wants to become unrestrained to move itself or move other things. An example is a motionless coiled spring which will go into motion when unrestrained. The coiled spring is made of sub-atomic particles that are always in motion even though the coiled spring itself appears motionless. The coiled spring is fashioned as such; it is forced into a coil and it seeks to (is meant to) uncoil when unrestrained until it reaches its original uncoiled state, in which instance the sub-atomic particles from which the coil is made are still in motion. Do the sub-atomic particles in a coiled spring behave differently when the spring is in its uncoiled state? It is likely that they do and must differ in some way. No matter, both states of sub-atomic particles assuredly are not inactive, according to modern science.

Meanwhile, it is clear that at the fundamental level, there is always activity. If there is activity in just one tiny spot in Space, there is time not only in just that active spot alone but also in “the whole of” Space. This is so because the activity in that spot (and if it is a regular activity) is an available measure of all other subsequent motions that could be initiated to everywhere else in Space. This makes possible the co-relating of events happening everywhere. Therefore, there was never a time when time was not!

Time is because time was. And the corollary is also true: time was because time is. Will time always be? If *everything* in space comes to a standstill, i.e. an absolute stillness or motionless state *everywhere* in space, then time is not. But, is it possible that everything (big things and tiny things, sub-atomic particles and waves) all everywhere in Space comes to a standstill? If the law of the conservation of matter and energy, as discovered by science, has a grain of truth, it is not possible for all activity to come to a halt. Time will also always be. Time did not begin to exist with the coming into existence of the universe. It has no beginning. Time was, is and will be. Time is eternal, in a manner of speaking. Time however is not God. Time is an intimate and inseparable aspect of motion. A phrase like “there is no time beyond space and time” is therefore meaningless (however poetical or profound-sounding it may be). Time is an intrinsic property of life – of God – not only of physical matter. It is apparent that time would cease to exist if, and only if, all thought and all motion throughout space came to a halt.

As reasoned above, *space* and *time* are capable of the most fundamental definitions than are assumed or defined in modern science. Whilst it may be acceptable to scientists that science studies physical things and there is no need for the “hypothesis of God,” nevertheless, further studies into and beyond the sub-atomic particles and other areas of science may yet lead towards this hypothesis as the reality. Theology, in turn, in its explorations into the realm beyond the physical universe, has constructed its own basic terms among which is the term “timelessness” which may not reflect the intended meaning of the word it uses. What exactly does “timelessness” mean? This essay proposes that there is no need to have two sets of initial assumptions or definitions, especially when we deal with the very origin or root of things. Two sets of definitions of similar concepts tend to confuse and divide rather than harmonise, thus contributing to greater divergence of thoughts. If we are to achieve consistency of thoughts, we should have only one set of initial assumptions. Going into the common root meanings of fundamental concepts should in the mind of the author suffice as common epistemological building blocks for both science and theology in this particular common area of exploration into the long past. Will this attempt reconcile some differences between science and theology and within theology itself? Since we are dealing with the very origin and nature of all existence, all basic terms employed in such a penetrating truth-quest must go to their utmost root meanings. Once this is done, can we then hope to find some common ground, thereby forging forward towards greater harmony between and within the two disciplines.

Space-time?

Science integrates space with time (which together is introduced as a “fourth dimension”) and constructs a geometrical (mathematical) model of “space-time.” It also talks about the curvature of “space-time” bounded by the furthest blurry edges of the galaxies, much like pictures of galaxies drawn on the elastic skin of an expanding balloon. It is said that the whole universe is curved in such a way that if we travelled in a straight line far enough and fast enough, we would arrive back at our own starting-point. In our explorations, we will try to derive our explanations from what is observed in reality and basic logic without resort to or dependence upon explanations derived from restrictive *mathematical models* of reality. The author contends that if we travel in a straight line, we would continue moving in a straight line, on and on without end,

and we will still not come back to the starting-point. A straight line by definition is a straight line; it will not curve, much less become a circle or an oval, no matter how long it is projected. And, two parallel straight lines will not meet at “infinity”, contrary to the practical assumptions in mathematics. To an observer, two parallel lines drawn from their starting positions and moving away from the observer will *appear to him* to converge and meet at the furthestmost view that is visible to his eyes or his telescopes. If one tags along with the motion of these parallel lines (which by definition are equidistant from each other), one will always observe that they are always equidistant from each other, never meeting at any point along the way, however far they travel. It must be remembered that practical mathematical models are not the reality, and such restrictive models can become red herrings in the track of truth.

Only in the last one hundred years was the common-sense knowledge of space and time dismissed after the conceptualisation of space-time continuum in quantum physics. As we are going into first principles, we will ignore this restrictive “space-time” mathematical concept of modern science. After all, not all scientists subscribe to all the interpretations of quantum physics and the relativity theory.*³

The Unknowable God?

After the above preliminary consideration, we can now ask: who or what is God? This question has intrigued humankind from time immemorial and there seems to be no end still of a common answer appreciated by all. To the Christian *theist*, there is a transcendent almighty personal supreme being who created the universe and there is a purpose for the creation. To the nontheist (*sceptic* or *atheist*), there is no such being; at least there is absence of satisfactory evidence for such a being as defined by the believer. To the *deist*, there is an architect who created the universe but this architect is not interested in it thereafter and leaves the universe to run on its own. To the *pantheist*, the universe itself is God, everything is part of God’s Body. To some other philosophical thoughts, there is a non-personal intelligent substance or principle pervading or guiding the universe. There are other variations to the concept of God, and each set of variation or system of beliefs as promulgated by its proponents has attracted a label to it. To the scientist, there is no need to hypothesise about God, he being more interested in the mechanics of things (the *how* rather than the *why*). And if he encounters a need to find a *why* for the *how*, he apparently resorts to seeking out or offering a naturalistic explanation, otherwise he will leave a tentative gap in his knowledge without invoking a God to fill it. This is the ideal picture of a true scientist at work. In reality, more frequently than not, the scientist has his own presuppositions too.

The general scientist (so it appears to me) may for some reasons find it more acceptable to believe in the Big Bang concept and the concept of Evolution than in the concept of God. All these concepts however point to the overall assumption that the universe is not eternal – it must have a prior origin. The question then becomes one of whether the universe is caused by an event or by an agent. An event implies blind chance of impersonal forces and waves, whereas an agent implies design and an intelligent mind or personality. Both views, event-causality and agent-causality, have their adherents. Even a most avowed atheist, who is more inclined to be sympathetic to the event causality view, would admit that virtually all contemporary theists,

agnostics and atheists believe that there is a logical possibility however remote that the universe has an originating divine cause.*⁴ The agent causality view is prevalent, from earliest known history right up to the present day. Prevalence of a view admittedly does not make the particular view the ultimate truth. What then is the ultimate truth? Is man able to acquire ultimate truth? Is it meaningful or coherent to talk about ultimate truth in the first place? God appears to be so problematic, or unknowable, judging from the debates that have been carried out through the centuries till today. It has been recognised by many thinkers that there seems to be an “implicate order” or “organising principle” out there, but they are not able to pin down its nature.

Ex Nihil, Nihil Fit

Before we consider the nature of the “implicate order” or “organising principle,” we must first establish another principle that is more fundamental. From our foregoing discussion on *time*, it is clear that “motion begets motion” is a corollary of the axiom *ex nihil, nihil fit*. With all the motions of things going on in the universe, there must be motion at the fundamental level of existence. If the present universe is not eternal, then what gave rise to it must also have motion as its inherent property. Something that is totally motionless cannot give rise to anything at all. It is also recognised that the present state of the universe we see around us is running down. It is not eternal (without beginning or ending). The general consensus is that the universe must have an origin. And the origin of the universe cannot be *nothing* because of the inviolable rule of logic that says “nothing comes from nothing.” *Ex nihil, nihil fit*. We have mentioned this briefly earlier and it is worth repeating, as this is truly fundamental. For things to exist now, there must be, in the chain of causes and effects, ultimately something that is necessarily self-existent, as we cannot envisage an endless progression of events or existents (agents). This Ultimate Something is what religionists call God. And we have established that this ultimate something must inherently be in perpetual motion or state of potential imminent motion, one way or another, in order that this ultimate something might initiate, cause or give rise to the universe we have today.

According to the discoveries of quantum physics, the universe is filled with “elementary particles” (electromagnetic forces, sub-atomic particles, nuclear spinning forces with positive or negative electrical charges, etc.) that are always in motion. Can these raw elementary ever-in-motion particles and forces combine on their own and produce the orderly universe that we see today instead of randomness and chaos? If so, there must also be an “ordering principle” at work among these particles and forces. And if there is such a presence, then these elementary particles and forces as a whole must possess the quality of order, which in turn is an aspect of mind, of consciousness. We can see the beautiful order of the atomic elements (more than 90 in number) as discovered by science and displayed in the well-known Periodic Table of Elements. Order or pattern is apparent even at this fundamental level. Are these orderly elementary particles therefore the original source of all there is? Quantum scientists do not think so, as I gather. They do not view these elementary particles and their forces as being eternal. These forces, we are told, appear to “come and go” as they like, being therefore unpredictable. We are told that the universe started as a quantum fluctuation that grew out of nothing.*⁵ The quantum fluctuation is the first

push that produced everything from nothing.*⁶ Maybe the universe itself sprang into existence out of nothingness - a gigantic vacuum fluctuation which we know today as the big bang.*⁷ So is this view from quantum science.

What is the theological view? The dominant classical theological view states that God created the universe out of nothing (*ex-nihilo*). If we work out simple mathematical equations for both viewpoints, these would be:

$0 + \text{quantum fluctuation} \Rightarrow \text{universe}$ [1st formula, from quantum physics]

$\text{God} + 0 \Rightarrow \text{universe}$ [2nd formula, from classical theology]

Both equations look similar. If they are identical, then we can derive the equation

$\text{God} = \text{quantum fluctuation.}$ [3rd formula, derived from the first two]

However, quantum physics do not consider quantum fluctuation as equivalent to God. And on the other hand, classical theology does not consider God a mere quantum fluctuation. If there is to be a convergence of thought, and granting that both views have more than a grain of truth, the first two equations could possibly be combined and displayed:

$\text{God} + 0 + \text{quantum fluctuation} \Rightarrow \text{universe}$ [4th formula, combining the first two]

What exactly is meant by the 4th formula given above? Since none of us admittedly has the full truth, the best I could do is to combine both truth claims to see if the combination works. In fact, the clues to ultimate reality (as far as they call out to me) comes from quantum science itself and these lie in the concept of quantum fluctuation and the dual wave-particle concept of elementary particles (especially that of light, which is now commonly known as a *wavicle*).

Ironic Stand-off

Before we proceed further, let us at this point note an ironic stand-off in both the dominant theological view and the dominant quantum science view – based on each of them agreeing to something that contradicts the very basic axiom of knowledge! This seems so to the author. Theology says that God created the universe *out of nothing* (*ex-nihilo*)! And cosmological science in turn says that the universe started from quantum fluctuations that came *out of nothing*! Unless I am mistaken, it appears to me that the basis that makes all knowledge possible breaks down at the very foundational beginning of both science and theology! If this is the case, can we ever know anything? Is knowledge built without foundation? Did science and theology agree to disagree, as each seeks to know more of everything that exists? Or rather, did each have some unknown or undisclosed reasons or fears for denying the basic axiom of knowledge? *Nothing* prevented the meeting of minds! Something must be done to clear away *nothing* so that nothing obstacles a reconciliation and pave the way forward. This essay takes it that the fundamental axiom “*ex nihil, nihil* fit” does *not*

break down at any level, most of all not at the ground level. Otherwise, we might as well give up trying to build any knowledge with certainty or ground our faith and science with any hope of confidence. This thesis assumes, certainly with obvious backing of unsuppressed reason, that science could not hang from a vacuum; neither could theology. Are science and theology inconsistent? If so, they are inconsistent over the same point and at the most inappropriate place!

If quantum fluctuation is not ever-existing or self-existing then there must be something else that is, and that something else is definitely not *nothing*. Call that “ever-existing something else” by any name – say, “quantum field” or any other name but God – if God is the name which scientists do not wish to invoke in their pursuit of knowledge. Theology seems to have lent science the moral support to believe that quantum fluctuation can come from nothing, as after all, God himself also created something from nothing! Why should there be any difference? Why should there be a need for the existence of a mere catalyst called God to enable nothing to produce something? The “argument from first cause” for the existence of God implies that the universe came directly or indirectly from the First Cause, not from nothing. This First Cause could be the self-existent God in the theistic sense or it could be some self-existent substance or essence in the non-theistic sense. One thing is sure: it could not be nothing.

From the foregoing reasons, the meaningless zero from the 4th formula must therefore be dropped. And the final formula, in two forms, could be proposed:

God + quantum fluctuation => universe *[5th formula, theological]*
or
Quantum Field + quantum fluctuation => universe *[5th formula, scientific]*

These two equations look strikingly similar. If the Quantum Field in the second equation above can be accepted as the original First Cause and given personal attributes, then God is finally found by mainstream science and we have the end of centuries of debate on the existence of God. This study will not go into such debate which is never ending if one is not willing to accept the probability or even the possibility that God exist. Some ancient and current philosophers see this God as a non-personal Cosmic Mind from which all things derive. This Cosmic Mind is given attributes of intelligence and good qualities. Plato called it the Principle of the Good. Perhaps there is an unspoken aversion to some unpalatable and maybe irrational doctrines of Christendom (such as the doctrine of hell, for one) among other factors that is the real stumbling block to the acceptance by many philosophers and scientists (and atheists) of the existence of a personal God. If religious history is any guide, this must be so. This thesis will therefore attempt to clear up (for me and my reader hopefully) some inconsistencies in prevalent theological concepts in the hope that a harmonious and internally consistent worldview could be presented for evaluation and possible acceptance. The belief that God exists is the starting point – the first step – and in my view, not just for theology alone, as His existence provides the dynamic source of all truth.

If theology is to enlighten the way to truth, as it professes to do, I believe it must provide concepts that are wholly and broadly coherent in a wider universal context than in the narrow contexts of partisan theological schools. The fact that there are

strong conflicting theological worldviews from within theological circles themselves indicates that any particular self-acclaimed coherency (especially of classical theology) is not real. The thrust of this essay is an honest attempt to arrive towards the most coherent theological worldview possible from first principles and from fitting together the best of the compatible theological views available outside classical theology, with the engagement of enlightening researches from the natural sciences (the book of nature) and of course most importantly from the ongoing researches into Scripture (the book of God).

The fundamental theological doctrine of “creation *ex-nihilo*” and the traditional attributes of God will be looked at in the light of our root definitions, first principles and the natural sciences. Hopefully, in the process, we will not become entangled wittingly or unwittingly in what may be construed as mere terminological manoeuvres, which we will avoid if we adhere honestly to sound first principles. Can we derive from the knowledge gained in important areas of human endeavour aspects that can provide for an all-inclusive view that is broadly coherent and true fundamentally? This essay is such an attempt.

Creation ex-nihilo?

“Creation *ex-nihilo*” is a theological concept that says the universe was created by God “out of nothing.” The universe was not created by chance or nothing. The word “nothing,” if taken in the absolute sense, means “no thing whatsoever, whether physical or non-physical, material or spiritual, known or knowable.” It means pure absolute space or void or true “emptiness”. If we hold to this root idea of the word “nothing”, then, to say that the universe was created out of nothing will be to contradict the most basic axiom – the foundational truth that says

“nothing comes from nothing
nothing ever could.”

This couplet, crooned by star actress Julie Andrews in the musical movie *The Sound of Music*, has sung home to me its melodious truth not easily forgotten.

Something cannot come out of nothing – nothing ever could! *Ex nihil, nihil fit* – out of nothing, nothing can arise – is a self-evident axiom that has been recognised by all thinkers (theologians, scientists and laymen alike) throughout all ages. This means also that nobody can create something out of nothing. This basic axiom is the foundation of all knowledge, and it must be taken as applicable in the absolute sense. If this is not applicable in the absolute sense, then how could we conclude that there must somehow be a self-existent Being? God might as well have come from nothing! *Ex nihil, nihil fit* is an inviolable rule of logic. How could God create something out of nothing? It may be argued by classical theists that since God is all-powerful, He and He alone could create something out of nothing, i.e. He could bring the universe into being without raw materials. This, to the author, is a mistaken notion.

It is sometimes heard that He is “almighty over all” and “therefore” He is “almighty over nothing.” Implicit to the argument is the assumption that all (which means “all things”) includes none. This is a fallacy. “All things” means “every single thing” and it

does not include “a single nothing” (this phrase does not even make sense). Therefore, the two concepts “creation *ex-nihilo*” and “*ex nihil, nihil fit*” are mutually exclusive — they are not compatible. To affirm both as true will be a contradiction, not a paradox as some of my friends might claim. A paradox is an apparent absurdity but yet may be true. If we look carefully at the connection between the cause (God) and the effect (the universe), we see the inescapable conclusion that the cause directly caused the effect! The addition of the words “out of nothing” is, in my view, more influenced by the sheer weight of a creed of theology than by the logic of the argument. Perhaps it arose as an unconscious desire to defend a revered inherited theological doctrine without realising that it overrides logic at the level of first principles! I honestly could not see otherwise. “Nothing” is a mere “empty backdrop” so to speak for the existence of a thing, of some things and of all things, including God (however He is defined)! The thought “almighty over nothing” cannot be logically or coherently true.

If the phrase “almighty over nothing” is true, it could also be interpreted without contradiction to mean that God himself came out of nothing! And if so, could not “nothing” give rise directly to the universe rather than indirectly by first giving rise to God? Likewise, could “nothing” give rise to just about anything at all? That is, could anything just about pop into existence from nothing? If God could just have popped into existence from nothing, why could not anything else do so? To say that God is almighty over nothing is to equally say that God self-created himself rather than He self-exists! And we know that self-creation is a contradiction of terms and an impossibility. How could something create itself when it did not have prior existence? *Ex nihil, nihil fit* does not refer to the impossible notion of self-creation. It refers to the fact that nobody, not even God, could create something from nothing. It has to be true at the root level, in the absolute sense, that “nothing comes from nothing” applies equally to God as to anybody or anything else.

Genesis

Let us now see if the concept of “creation *ex-nihilo*” is derived from revelation if not from first principles. This concept is frequently supposed to have derived from the first verse of the Christian Scripture, which commonly reads:

In the beginning, God created the heavens and the earth. (*Gen 1:1*)

The *first impression* given to the mind on reading this sentence is that “in the beginning, God created the heavens and the earth *out of nothing*.” In the view of the author, this is a pre-conceived conclusion that has been far too quickly taken for granted, and hardly ever questioned. *It is an unnoticed illusion*. The thought that this verse actually conveys, at least to the author, is that “in the beginning, God created the heavens and the earth *where there were no heavens and earth before God created them*.” This thought, differing from the other one, would be irrefutably true, and consistent with other related scriptures that we will look at shortly. Irrefutably true? But, you might say, is not the additional phrase redundant, repeating the obvious? This may be so, but it prompts me to ask whether the universe really could be created out of nothing. The first verse of the Bible tells us in no uncertain terms that the universe (heavens and earth) is not self-existent or eternal but was created by a

Supreme Being. This thought is what the Bible conveys and what theologians have actually been trying hard to promote. It is a mistake, in my view, to add the phrase “out of nothing” to this thought and defeat it with a contradiction. This is said with all due respect.

A few more verses later in the book of Genesis, we read of God using the phrase “let there be” repeatedly. Each time it is used, the existence of some particular things (light, firmament, trees, animals, birds, fishes, etc) are brought into being, to which each corresponding “let there be” relates. Let there be and there were. This seems to further reinforce the illusion that God could create something from nothing. He merely *speaks or wills* and things came to be! Aha! Herein lies the clues to the truth. God *speaks* (“let there be”) or *wills* things into existence. The *word* of His or the *will* of His triggers *from Himself* (or more accurately *from His Spirit* or His *internal resources*) the creation of the universe and all that there is! *Before* the words “let there be” were first uttered, we are told in an earlier verse that “the *Spirit of God moved* upon the face of the waters.” Noticing this should clear up the illusion. Yes, this *dynamic Spirit* of God is the vibrant complex energy source out of which all the created things came. If a clearer direct statement from the Christian Scripture is required, one could go to Paul’s first epistle to the Corinthians (1Cor 8:6) where he says that *it is God “from whom” (i.e. out of whom) all things came*. All things did not come from nothing. We cannot but conclude that the material from which the universe is fashioned came out from God or His *internal resources* (which must be a part of God).

Two different Hebrew words, *bara* (create) and *asah* (made) are used in the creation account of Genesis. These words are apparently used interchangeably for the bringing into existence of the various things over the first six days. Genesis 2:3 says that God rested from all His works that God created and made (Hebrew: *created to make*). The Hebrew usage here gives the sense that create (*bara*) comes before make (*asah*). It may be said that God first created (*bara*) some things (including some initial raw materials) from His Spirit directly and then made (*asah*) other things directly from the raw materials first created (i.e. a secondary or tertiary creation was involved). He could have added more of His spirit as needed to the newly-created raw materials to fashion more things during the creation days. This may be alluded to in the use of the word *bara* again in the creation of great whales or sea-monsters later on (verse 21). Whether it is through a process or interplay of primary and secondary creations, all things came out of God, not out of nothing. In all the remaining forty plus uses of the word *bara* found in the Old Testament, the idea of things coming out of nothing is absent from their contexts; in fact, the opposite is the case if every context is read consistently. Its usage in the first verse of the Bible (the popular King James Version) should not therefore be an exception. In the honoured Young’s Literal Translation of the Bible, *bara* is also translated as *prepare* (as well as *create* and *appoint*).

In the beginning of God’s *preparing* the heavens and the earth – the earth hath existed waste and void, and darkness [is] on the face of the deep, and the Spirit of God fluttering on the face of the waters, and God saith, ‘Let light be;’ and light is. (*Gen 1:1-3 YLT*)

Young’s translation portrays the usual “first verse” as an introductory clause that connects the subsequent thoughts up to the usual third verse, all in one sentence. That the traditional rendering of the first verse as a complete sentence in itself needs a

revision is the view of recent scholarly studies, and evidenced for example by the New Revised Standard Version.

In the beginning when God created the heavens and the earth, the earth was a formless void and darkness covered the face of the deep, while a wind from God swept over the face of the waters. (*Gen 1:1-2 NRSV*)

According to the above new understanding, the first few phrases of the Bible does not convey any hint of the illusory thought of *ex-nihilo* creation. We shall look at the powerfully unifying and solution-yielding implications of the correct thought of Creation *ex-Deo* (out of God) as we proceed in this essay.

We are not particularly concerned with the types of processes by which the universe originated (or was created). Whether it originated as a Big Bang or Steady State or any other theory is not material to our immediate discussion. What we are contending with is that the universe could not have come from nothingness. The following verses clarify Genesis chapter 1.

By the word of the LORD were the heavens made; and all the host of them by the breath of his mouth. (*Psalms 33:6*)

The universe was made “by the word” and “by the breath of the mouth” of God.

For he spake, and it was *done*; he commanded, and it stood fast. (*Psalms 33:9*)

In popular Christian theology, the will of God and the thoughts and volitions of man are frequently referred to as “out of nothing.” (see Berkoff’s Systematic Theology, a popular textbook of Christian theology in the section on “creation out of nothing.”) As might be apparent from the above textbook, scientific knowledge was still in its infancy at the time of Berkoff and his peers, and it was not yet influential. Today, it is frequently stated that “thoughts are things,” that is, thoughts could influence activities within oneself and on others at a distance.

Man’s thoughts (as we now know from science) result in intense electrical activity that can be measured by an ECG machine in the form of an output of electrical wave patterns. Such electrical activity cannot be evidence of “nothing” in the light of the basic meaning of “nothing”! Likewise, it would be logical to say that the mental activity in the act of willing by God is not “nothing”. Within the Christian Scripture, it can be seen that man’s thoughts and volitions are the result of the spirit of man residing in him (*Job 32:8; 1 Cor 2:11* – this topic is discussed in Chapter 4) working through his brain! – Not from nothing! Man’s thoughts (evidenced by electrical impulses in the brain) are not intangible nothings. It is recognised that thoughts have the power to transform the body into actions. Thoughts from one’s mind may be conveyed to another’s mind as in telepathy. God’s mind knows what our minds think through mind-to-mind contact, mind to mind action and reaction. God’s act of willing converts the “electrical impulses” from “His brain” into the physical universe. Such a pragmatic analogy would be valid and logical in the light of our modern sciences and in the light of Romans 1:20 (that the created natural world reflects God’s divinity). From the theological viewpoint, there must have been a transformation or a conversion of God’s act of willing into the universe. There must have been some kind of

metamorphosis that have occurred, like the butterfly developing or “evolving” from the pupa which in turn developed or “evolved” from the caterpillar. (This chain of metamorphosis is a marvellous example of real life quick-time “evolution” in action.)

Even more so (as modern theologians would surely accept), God’s own thoughts (or creative acts of willing or thinking or speaking) could not be said to be nothing! If they were, then this would contradict the Christian’s own Scriptures that clearly imply that the word from God has the power to create things,*⁸ the power in upholding or cohering all things,*⁹ and the power to go forth to effect desired changes in things or lives.*¹⁰ That powerful dynamic word from God is apparently the creative mind stuff or energy that formed the world. The energy from God’s thoughts and from His words must have converted into the physical things willed by God. What is visible came out of what is invisible, and what is invisible is not nothingness. Wherever we may go in “empty” Space, there God is (*Psalm 139:7-8, Acts 17:28*) – in reference to His energy or spirit extended into Space where things are, and in reference to the “immanence” of God in the things created by virtue of creation *ex-Deo*.

The corollary of “nothing comes from nothing” is that something that exists must have come from something else that is also existing. This does not necessarily mean that the physical universe must be created from some pre-existing intermediate raw material that God has to fashion from – as in the concept of “creation *ex materia*” – although this may be a probability. We shall refer to this again later. The thought of “creation out of nothing” is only a first impression – an illusion – given to one’s mind on reading the initial sentence of Genesis, as we indicated earlier. This preconceived thought in the mind has become, albeit unwittingly, a stumbling block (a “little error at the beginning”) to the harmonious progress of theological truths. This has given rise to the incoherence of some theological concepts (which we will look at shortly), and such disagreements no doubt have given rise to opposing schools of theological thought.

If we look at the inherent essential meaning of the word “nothing” (*no thing*) and then also find the inherent essential meaning of its opposite i.e. the word “thing”, the latter will have to be inclusive of all entities – all that which exist or deemed to exist and occupy space including spirits, angels, God, light, non-physical invisible matter, thoughts – all of which are not mere empty contentless space (three-dimensional co-ordinates).

As God’s will is part of God (even as our will is part of us), the universe must have come from God or a derivative part of God – not from nothing! This is the logical thought that follows. God created the universe out of something, something within Himself or His internal resources since it is generally assumed that there was nothing outside of Himself at the time when the universe was created. It would be a contradiction of terms if we were to say that God could create from “non-existent things” (as one might be tempted to infer ineptly from a scripture (*1 Cor 1:26-28*) which has a context that actually refers to individuals of low social standing, rather than it offering a scientific statement on creation).

Now, Scripture also says that God created the non-physical spiritual world (angelic powers etc) since He created all things (*Eph 3:9-10*). God brought all these things (obviously Himself excluded – *1Cor 15:27*), visible or invisible, into existence in the forms that they exist. And living spiritual material can convert or materialise itself into

physical material, just like the angels that appeared to the prophets of old and ate with them, according to the Christian Scripture. If we pursue our thoughts on creation to the ultimate, we will realise that the principle of “nothing comes from nothing” holds true in both the physical realm and the spiritual realm. *It must hold true in the absolute sense in all realms for all time!* This cannot be said of the concept of “creation *ex-nihilo*.” Whatever was created must have been a transformation or a conversion (transmutation) from a part (even a tiny part) of the Original Source! God is therefore transcendent (above and beyond the thing created) and yet immanent (within the thing created), in this sense. Because of a real transformation, the created universe is distinct and separate from God, and is *not* God, though it came from Him! There is therefore a common thread underlying all created things. Each thing carries with it a once-original divine spark, the “fundamental reality that endured.” This to classical theologians may sound like pantheism, but it is not. More on this later.

Not only cannot God Himself have come from empty space, but also He cannot have come from anyone or anything greater than Himself because He is, by definition, the greatest being than which nothing is greater. If this root axiom “nothing comes from nothing” is to apply, as it does of necessity, to *everything that exists* – yes, everything including God or Ultimate Reality Itself – then God too did not come from nothing! Yes, He must have, in a manner of speaking, come from something *none greater and none other* than Himself! This does not mean that God is self-created, which is a contradiction, as nothing can create itself. It either self-exists or came into existence from something else. We say that God necessarily self-exists because He did not come from something else! In the terminology of theism, He has *aseity*. He cannot *not* exist. And He has the fundamental nature (whatever it may be) which He cannot *not* possess in His self-existence. Before the existence of anything else apart from God, He was alone “all in Himself” as some theologians would infer from their Scripture.

The self-existence of God (however He is defined ontologically) is the answer towards which all ultimate questions must lead. He is the beginning of the chain of causation. He is the joint “agent-event” causality. He is the answer to the much sought after “Theory of Everything” in a non-mathematical sense. If our reasoning from first principles is to be coherent, the ultimate answer to creation must be “Creation *ex-Deo*” (creation out of God) – a fundamental truth in deism, notwithstanding deism’s other concepts in its philosophical package that are inconsistent with dominant classical theism. Hence we see a reason for classical theism’s reluctance to accept “creation *ex-Deo*” as the evident truth. The metaphysical question “why there is anything at all” seems to be answered because “nothing comes from nothing.” We are left with only two answers: either something has always existed or nothing at all exists. The first answer is obviously the true one. And that something that has always existed is the underived living God – the Ultimate Reality, in whatever name it is called. In our context therefore, the concept of “creation *ex-nihilo*” is an impossibility. It is a “little error of the past.” *Nothing comes from nothing* is the first principle of logic, of science, of theology – in fact, of all knowledge. It has to be absolute and not otherwise. Violate it and we have the end of science and faith.

Ex-materia?

Our conclusion yields a “creation *ex-Deo*” context as the reality which is in harmony with the Bible. Even if creation came about *ex-materia* (this is mentioned earlier as a probability), the *materia* itself must have in turn come about *ex-Deo*, because Scripture declares that there is “none other” greater than or equal to God. On the other hand, if this “none other” is not to be compared to someone of the same stature as God, then there could be in existence a *materia* (raw spiritual substance) that exists alongside God, and as eternal as God, but is not God’s competitor. If this *materia* exists, could it not be part of the “substance” that God Himself is made of rather than a separate “eternal” entity? In this thesis, the author assumes on the basis of the simplicity principle of Okham’s razor*¹¹ that such a *materia*, if it exists, is derived from God, and not a separate eternal entity. In fact, evidence points to the existence of such a *materia* but it is one that is not inert but able to impart thoughts and feelings from one entity to another. This *materia* finds its unifying expression in the *Spirit* of God. This question leads to another question: is God a simple or a complex being? One reason why classical theologians maintain the inapt notion of “creation *ex-nihilo*” is that they also maintain, among others, another notion: that God is simple and indivisible (God has no parts), which is incompatible with “creation *ex-Deo*.” We will look at this again shortly.

We do not yet understand the processes by which the universe was created or transformed from God’s one act of willing (or thinking or speaking) but this transformation or conversion is now an understandable reality in the light of today’s sciences. And this transformation does not contradict the Christian Scripture but it does with the expression “creation *ex-nihilo*”.

Space, God and Time

Christians believe that God was alive, is alive, and He works – as stated in the Christian Scripture (*John 5:17*). He is activity. Therefore, *time* has always existed along with God because time (its root meaning as we have looked at earlier) reflects motion or activity, however minute it is and in whatever nature or form it may take. There would have been no time (timelessness) if everything in Space was “frozen” into total absolute motionlessness, i.e. if God were absolutely, totally, perfectly still (or in other words, dead)! These plain expressions simply and naturally came into mind when motionlessness is suggested. No disrespect is intended. Theologian Clark Pinnock said it in a more gentle way by using the phrase “completely static”*¹² but I do not know whether every reader will get the force of this scientific term. The author is not suggesting that God is dead (– far from it –), but what other logical conclusion could he come to if we say that God is truly timeless in the root sense? If God were dead, He could not think or act; nothing would have been created. There would not have been any causal agent or event. There would have been just Space and a dead God, though He still was self-existent! *Then* God would be truly immutable and timeless!

It is clear in the author’s view that God could not “timelessly know” – another phrase occasionally used that is self-contradictory. To “timelessly know” is *not* to know, except perhaps in a frozen moment of “blank thoughts” (if this expression even makes sense). God is not “outside of time” nor does He transcend time. If He does, He would be dead or completely static! There would be complete silence everywhere. He would

then be in an eternal moment, an “eternal now”, but unfortunately He would not know the past, present and future, because in timelessness, there is just no past, present and future. Everything would be in a frozen now. He simply could not know! All His thoughts (and every part of Him) would be frozen! In this frozen moment of absolute stillness, like a still photograph, He would be literally and exactly the same yesterday, today and tomorrow and forever. He would also be totally without love or feelings (i.e. *impassible* in theological terminology)! No offence is intended by the above direct statements, as the author could not refrain from speaking or seeing the logic plainly, at least for the purpose of driving the point home because this point is fundamental in this essay. Thankfully, God was never dead. A dead God could not have given rise to life. Life comes from life; motion comes from motion. An action gives rise to a reaction. God, being alive, acts and reacts; He responds, He gives and receives. The scripture (*Hebrew 13:8*) that speaks of Jesus Christ being the same yesterday, today and forever refers to his steadfastness in godly character rather than absolute non-motion.

The biblical God is also not the unmoved, timeless mover of Plato. A timeless mover cannot move himself or anything else. God is in time and time is in God. God is not “outside of time,” neither is He “isolated from time.” Time is not a thing that occupies space. A thing or being that moves defines time. God is the ultimate being, and since God is alive and moves, God gives rise to time. Time therefore finds its ontological meaning in God. How then can God be limited by or in time? On the contrary, well has it been truly said that the biblical God is the Lord of time! God is where time (and everything else) finds its ultimate ontological significance. One might also say that God embodies time. And He has always existed — in a real live sense. This to me is what makes God eternal (ever existing without beginning or ending), not merely temporal (in time as measured by our physical clocks), which word carries a suggestion (to me) of the possibility of dying, indeed of decay, and temporal things (as we usually perceive them) need to be sustained by God. We will explore in later chapters how temporal beings are being sustained by God, but it is already quite evident from the *ex-Deo* conclusion we have arrived.

Thus far, the author could therefore summarise and state what he believes to be the basic true presupposition: *In the very beginning before the whole universe came into being, there was space, God, and time.* This is the basic trinity. God did not create space and time in the true sense. God always was and is in Space and in time, and He will always be so. He does not transcend space or time. God gives rise to time; time reflects God’s eternity. God did not (and could not have) come from “nothing.” Powerful as He is, God Himself cannot create something from nothing. At no point in time was there nothing. At no point in time was God dead or even asleep because sleep implies activity too, albeit unconscious activity (or “potentiality” in classical theological terminology). God simply is “actuality,” although invisible – alive and well. Time begins with God, not with creation. One could also say with true logical profundity: nothing is beyond time and space.

Immensity of Space

How big is Space? It is endless, as there is no boundary in space. It may give a sense of awe to the mind in trying to fathom or imagine the boundlessness of Space, but it is

something that is quite intuitive. Space is truly infinite – an infinite nothing, an infinite void. Space is simply the void beyond whatever things that exist (physical or spiritual, including God).

Immensity of God

How big is God? We do not know. As far as us puny humans are concerned, His spiritual influence must be extensive since all of us, and the whole (expanding?) universe, move and have our being in Him.

Am I a God at hand, says Yahweh, and not a God afar off? Can any hide himself in secret places so that I shall not see him? says Yahweh. Don't I fill heaven and earth? says Yahweh.
(Jer 23:23-24)

But will God indeed dwell on the earth? Behold, the heaven and heaven of heavens cannot contain thee; how much less this house that I have built!
(1Kings 8:27)

Where could I go from your Spirit? Or where could I flee from your presence? If I ascend up into heaven, you are there. If I make my bed in *Sheol*, behold, you are there! If I take the wings of the dawn, and settle in the uttermost parts of the sea; Even there your hand will lead me, and your right hand will hold me.
(Psalms 139:7-10)

The whole universe seems to be a small area compared to the size or rather *influence* of God's spirit, as the above scriptures (especially those from *Psalms 139*) convey. Wherever we may go, God's help is within reach.

Meanwhile, we take it that God's finiteness or "infiniteness" is the vastest. As far as all creation is concerned, God is immense and, *for all intents and purposes, infinite*. And, it is in this context that we have always referred to Him as being infinite (in relation to the whole creation). The whole universe may be a tiny volume compared to the possible areas of God's influence. We have always compared Him to something. We do not compare Him to nothing (space). In this sense, we have traditionally and reverently spoken of God as infinite. We have an "infinite" God in a borderless or infinite space (both "infinities" being not used in the same sense). Likewise, in reverent speech, one may speak figuratively of God as "dominating all space" and "occupying all time" although these phrases, profound-sounding as they are, do need qualifications when used as they may be vague and misleading.

God is not Space; He is *in* Space. Since God is *in* Space, He must ultimately be "finite in size" too. There is space outside of Him, unless there is a kind of matrix or "properties of a spiritual something" that intimately connects or is inherent between God and Space, in which case then God may be said to be as infinite or borderless as Space! But this is something that the author finds great difficulty in conceiving, as it would mean that space is not space. The best explanatory candidate for this spiritual matrix is

God's spirit which can extend far and wide. Meanwhile, the author concedes that he has come to the limits of his search into "what is in the very beginning." And he in faith and in logic accepts God's declaration (from revelation) that there is "no other God besides Him." There is no need to say this if God is as infinite as Space. We even define Him as the Ultimate Reality or The Supreme Being, implying therefore that God is *in* space. However huge or immense God is, He is still "finite in size" *in relation to* Space. As such, God cannot be said to "fill all Space" as it would be inappropriate to mention Space as "all Space" because Space is borderless. What amount of volume of space could be considered "all Space"? It is not a wee bit less reverent to think of God as "finite in size", as the honest seeker of truth explores the limits of knowledge in a spirit of humility, not timidity. In the Bible, Jesus Christ repeatedly taught that God (the Father) is *in* heaven, an area *in* space.*¹³ God's operational centre is somewhere in Space where His throne is, as we are told in the Book of Revelation. In relation to God's heavenly dwelling place, the Bible tells us that God sees from heaven, hears from heaven and speaks from heaven.*¹⁴

It is he who sits above the circle of the earth, and its inhabitants are like grasshoppers; who stretches out the heavens like a curtain, and spreads them out like a tent to dwell in;
(*Isaiah 40:22*)

The finite picture of God conveyed in the above scripture is clear. God sits "above" the earth and He "dwells in" the heavens like someone dwelling in a tent. This analogy is given by the Bible and it is real. Humans could create a structure larger than themselves so that they could live in. Even birds could do the same. Likewise, could God. From God's view high above, the earth's human inhabitants appear small like grasshoppers.

Bold and genuinely sincere questions could and must be asked in the search for truth without placing a precondition to "protect" God based upon our vague idealistic concept of the Deity. I believe with assurance and reverence that God will be more than able to defend Himself against every honest searching question. Many an earnest attempt to defend God, to fight for God, has given rise to undesirable and unnecessary hostilities among believers, and between believers and non-believers. It appears that among many sincere believers there is an unreasoned fear of placing a limit on God and any hint that this might be so becomes intolerable. This is a strange phenomenon – one that we might have to live with at the present time. But, striving to defend Him or His infiniteness may actually be trying to defend our own inadequate concepts of Him. One might say that we should "view God as god" but this ultimately still means we view God as we think He should be viewed, because we cannot place ourselves in the position of knowing God as God knows Himself – at least not for now. To us, He is undeniably the greatest being and there is "none else like Him" (in comparison with every other possible living *beings*) as revelation declares (*Isaiah 46:9*). God's greatness and capability has no rival. God is incomparable in power with any other *being*, not with space. As far as we are concerned, He is therefore considered "infinite" in this sense. This view does not, as some might fear, shrink God. It shrinks only a presumed manmade idealised concept of God. Thus, whether we see Him as "finite in size" or infinite in power and influence, *both* views still see Him as the greatest being among all else. To the author, this converging conclusion is gratifying.

Unsurpassable God

The word “infinite” is a shorthand word intended to give the idea of “the greatest or mightiest of all”. This is fine. Yet, it is also used of space and sometimes also of numbers. And here “infinite” means endless (a sense of moving on and on and on and never arriving), ever so distant and remote. It conveys a sense of being “unfathomable” and this gives rise to the impression that God is unknowable and to a tinge of despair and futility in our trying to grasp the seemingly ungraspable. It is no wonder that God is frequently said (even dogmatically) to be incomprehensible. With this impression governing our mind, we tend to ascribe to God all kinds of “perfections” that carry with them an attendant sense of haziness all the way to the horizon. This reinforces the author’s view that “infinite” (which seems to be frequently used of space and of God) may not strictly be an accurate shorthand word to use of God. A more accurate thought conveyed (to me) by the Bible is that God is “unsurpassable”^{*15} or “incomparable” (a more personal kind of comparison) but not altogether “infinitely” vague and “unknowable.” Other adjectives such as *sovereign*, *almighty* and *omnipotent* as commonly used of God are also good descriptions, but these too (in the author’s view) need to be qualified and clarified when used.

In making the above suggestions, the author realises that he stands the risk of being accused of arrogance or the like by some fellow believers in their piety and innocence. But this is a little price he is willing to pay in what is to him a genuine journey into self-critical reflections and discovery whilst still being able to maintain a humble posture. If his reader thinks otherwise, grace from him is appreciated. If the reader believes that this odyssey is authentic as his hunch has taken him thus far, he would not be disappointed as he reads on. To the author’s perception, a knowable and personal God is One to whom he can relate more easily and such a God is very real and just as worthy of our worship, if not more satisfyingly so, as he discovered and experienced! The history of the universe is the history of God trying to reveal Himself, progressively (from being unknown or unknowable to being knowable and even intimate), according to a plan of revelation that He has set up for the purpose. But this is getting ahead of the story.

No other Gods besides Him

Let us reason further and try to address our fears. If God is not actually infinite (in size as compared to Space), could there not possibly be another God (or other Gods) elsewhere in infinite or borderless Space? Could there be such a one which our God has not known or met with yet? Could there not be many more Gods in boundless, remotest Space? Science seeks the simplest and most elegant theory as the truth or working hypothesis. On this basis, we believe that the simplest and most elegant truth is the existence of one God, instead of many Gods, and this is also consistent with our definition of God. This satisfies *Okham’s razor* (sometimes also known as *Occam’s razor*) referred to earlier, which says that one should not increase beyond what is necessary the number of entities required to explain anything. The existence of one God must be a unique “event” (if it can be called such) in the history of Space. Space (nothingness) does not give rise to God. Space and God come as one, because “nothing comes from nothing.” Space is the necessary background that defines God’s

existence. The existence of more than one God before God's initial act of creation could imply that Gods can pop out of nothing – an infringement of our basic dictum '*ex nihil, nihil fit.*' This is the limit that the author came up against in his search for ultimate reality. He reckons therefore that "nothing comes from nothing" is the absolute basic truth of existence in all realms for all time (as he concluded earlier); it is from this root axiom that all other axioms and theories must flow. There is one God and this one God therefore may be said to be a necessary being. And we should accept from His own testimony that there are no other Gods besides Him. Only He knows this; we don't. However, we are satisfied that our inference to the best explanation is confirmed by His revelation.

Don't fear, neither be afraid.
Haven't I declared it to you long ago, and shown it?
You are my witnesses.
Is there a God besides me?
Indeed, there is not. I don't know any other Rock.
(*Isaiah 44:8*)

God spoke through His prophets. Prophet Isaiah frequently quoted God in the first person when speaking to the Israelites. The statement "I don't know any other Rock" in the last part of the above scripture is significant, as it implies the vastness of Space out there and God in eternity past therein has not found any other God out there beside Himself. And this statement of truth is prefaced with the reassuring words "don't fear, neither be afraid." We do not fear for God if God Himself does not fear living in the vastness of Space. In Scripture, God is frequently likened to a rock or fortress (*Deut 32:4, 30-31; Psalms 31:3*), and we are assured there is no other spiritual Rock like Him around.

He knows our logical inquisitiveness and our fears. He knows we would ask ultimate questions, and He has provided the answers in Scripture. God has spoken. Believers take His word for it; they have His assurance. After all, He has been in space for eternity past, longer than all the lifetimes of everyone who has ever lived (and will live) put together, and has survived any and all obstacles that He might have faced (humanly speaking) over that "length" of time. Therefore He ought to know whatever there was to know. According to the supposed evolutionary timescale, it has taken some fifteen billion years for the universe to evolve humans and consciousness. What is fifteen billion years compared to eternity? The mere fact, as the author concluded, of God's eternity before the existence of all else supremely qualifies Him in having "evolved" or "acquired" all the knowledge and wisdom that He must now possess. Herein lies the prime reasonableness of faith in the One who should know better. Boundless space, though infinite, is nothing – an infinite nothing. Compared to an infinite nothing, God (however big or small) is an infinite something – an infinite Being, reverently speaking. Infiniteness of *something* refers to presence and power. And God has these, so we are told in revelation. He has the greatest power and resources within Him.

Let us look at another supporting scripture:

Remember the former things of old:
for I am God, and there is none else;
I am God, and there is none like me;
declaring the end from the beginning,
and from ancient times things that are not yet done;
saying, My counsel shall stand, and I will do all my pleasure;
(*Isaiah 46:9-10*)

The second line of the above-quoted scripture reinforces *Isaiah 44:8* in saying that there is no other God besides Him. The third line says that there is no one else like God. Can we infer from this that there may be some lesser gods who are not quite as powerful as God? Indeed there are, according to clues found in Scripture. Who are these? In the book of Job, there is a record of God telling the patriarch that when He created the earth, “the morning stars sang together, and all the sons of God” shouted for joy (*Job 38:7*). This implies that there was a spiritual realm created first before the creation of the physical universe. Stars are frequently associated with angels.^{*16} The term “sons of God” may refer to good angels or to some other spirit beings in the heavenly realm. There are twenty-four elders and some other spirit “beasts” in the heavenly throne scene given in the last book of the Bible.^{*17} They seem to form the heavenly administrative assembly. Incidentally, we note that Satan too has access to the heavenly realm (*Job 1:6*). Scripture is scanty on what was in outer space in the heavenly realm before God created the physical universe. That there exists a spirit realm (with good and bad angels) is clear from revelation. There is a two-storey universe – a spiritual realm and a natural realm. A conclusion can be drawn: God appears to have seen it fit to give us tantalising glimpses into the pre-physical creation period to answer human curiosity and at the same time leave room for our faith. We will have occasions to look into the topic of “gods” (or lesser gods) in this book.

Does God Travel?

Does the Supreme Being move around in Space? Perhaps He does. We do not know. But does *He* know? How would He know whether He is or is not travelling in Space if there is no signpost outside of Him for Him to relate to? Unless perhaps there is some form of stationary matrix that is part and parcel of Space! If something (such as this matrix) is “part and parcel” of Space, it would mean that this something (the matrix) is as infinite as Space! But no entity is as infinite as Space by definition or natural implication. Therefore such a matrix, if it exists, cannot likely be apart from but related to God and is a part of Him. Whether God travels in Space is not an important issue, as far as we are concerned, or rather as I see it. He may be stationary in position, as it makes no difference exactly which position in space He is in at any time as everywhere else (before the existence of the universe and anything else) is the same empty space with no difference in content whatsoever. Then again, perhaps He could move part of Himself in relation to other parts of Him. Maybe He can “stretch Himself” far and wide, so to speak. This matrix, just like the spiritual *materia* we spoke of earlier, finds expression in the *Spirit* of God. God’s spirit energy could have in some manner been projected far and wide into Space. Hence God could tell us He knew of no other God in remote outer Space. One thing however is sure: He is definitely not still. He knows that He is alive. His creatures (beings derived from Him) could move and could know that they move because there are signposts (sun, moon, planets, stars and galaxies, or

any other created reference point) for them to refer to. God is alive, His spirit moves (*Gen 1:2*) and can even be divided up and apportioned to believers,^{*18} implying therefore that His Spirit is not indivisible. We see from what we have reasoned thus far that the *Spirit* of God *answers to the immensity of the size of God*. Everything created (the whole universe, invisible and visible) exists “in God” because each created thing comes from God’s spirit. His ubiquitous presence (God’s immanence) in everything cannot be escaped from because everything was once a divine spark, though now transformed. God’s additional influence can also come from Him across space to His creatures. We will look at the meanings in some contrasting common phrases such as “we in God” and “God in us” in a later chapter.

What was God doing before the creation of the universe?

Many would have wondered about this question, though it is not frequently asked. A straightforward answer would be: “we do not know.” We may take it that He, being alive, was thinking and planning for the creation of the universe (perhaps at some time close to the event). I take it that, at the very least, since He was in Space over that long stretch of time spanning eternity past in His self-existence, He must know (or have come to know) whether there was anyone else in Space other than Himself, as inferred earlier. And He tells us there is none besides Him (*Isaiah 44:8, 45:21-22, 46:9*). Are we to believe Him? Indeed we do if we believe that He exists. Reasoning thus may take away some haziness and mystery surrounding God, but it does not take away faith. On the contrary, faith is *strengthened* by becoming logical and more meaningful. Armed with this eminently strong position of faith, we can anticipate that whatever God does has a good end in view even though He may not have revealed all details to satisfy us fully at this time.

The Place of Faith

A man’s search for the ways of God may not yield all the answers at the present time. Quite obviously, the God of Scripture has not chosen as His prior obligation to explain all the *why’s* and the *wherefore’s* of His ways to justify Himself to His children. Rather, He like a parent expects His little ones to first learn to trust Him. “Faith” – this is the little ones’ second step, after taking the first step to believe that their Parent exists. There will be more “steps”: crawl before walk and walk before run, and assuredly through these, with falls and bruises and guidance from their Parent, understanding follows. As the author has arrived thus far, placing our trust in Him is therefore justifiably due on man’s part and justifiably asked on God’s part. It is with the eyes of faith that remaining puzzles could be seen to fall into place in the heart of the believer. It is from the book of Nature and the book of God that man must make do with in his search for meaning as these are all that he has access to outside of himself. If divine reticence has revealed little of what God was doing before He created, His book of revelation has definitely revealed more, much more, in the post-creation story – and a divine plan is being worked out in His wisdom which will bring about His desired end. What the ultimate end is for mankind is an awesome one, as we shall see.

Does God change?

Since God is an essence of energy and activity, always in motion, does it mean that God changes? Before the creation of the universe or anything else, did God change or did He keep changing? The fact that He is activity does not mean that He changes. Activity *per se* does not refer to God's "essential nature" – His essential nature does not change; much like the mobile human person with his actively pulsating heart or breathing lungs or circulating energy does not change the person from what he is. This is one of the issues of classical theism but it should really be no issue at all, if we perceive God as a personal corporeal being and not some kind of amorphous stuff. The enduring essence of God is one which reflects Him as being free, fluid and therefore loving. He is free to transform, de-transform and re-transform part or parts of His Spirit. This idea is reflected in part in Process Theology's concept of "becoming" but God's ability to create may be more than just becoming.

Non-attributes

In the foregoing discussion, it is unavoidable that we touched a little on the nature and attributes of God. Pushing back the boundary of time to where it actually belongs in the empyrean dispels misty concepts such as timelessness ("eternal now"), impassability, immutability and simplicity – these attributes of silence simply wafted away and disappeared into oblivion from my perspective. Discoveries to be described later will more than amply support this view. Accepting the longstanding concept that "space and time" began with the physical creation *ipso facto* limits our horizon to knowing all things post creation and nothing but vagueness of the Creator and His other creations (e.g. the spirit world) before the creation of the universe. Lifting the curtain of time has not yet at this stage unveiled behind it a full picture of a dynamic loving God with a wholesome cosmic plan for His creation – until many stages of revelation later, now available to mankind if only we have the eyes and ears for such things and a receptive heart to believe. However, at no time after creation is God so thoroughly veiled as to be utterly unknowable and unrelatable, as God shares the vicinity of His space with His creatures.

The above classical attributes of God have been much idealised and venerated through centuries of time as to carry with them a paralysing aura of absoluteness and total reverence, especially in the dominant school of thought. They seem at times to be defended nearly at all costs against the onslaught of variants of theism. In the author's view, theologians need not strain to do this. God is as "omni" or as "perfect" as he really is, not necessarily as all that we idealised him to be. There seems to be a fear among classical theists that modern explorations into the nature of God (i.e. away from the classical concepts) would result in the opposite direction of "creating God in the image of man." Such a fear is unfounded, as far as the author is concerned. After all, in the first instance, man was created in the image of God, as theists themselves believe. If B is made in the image of A, there must be close similarity between A and B, and it is in this similarity that creator A can conversely be said to be like creature B, the mirror image. And this thought receives justification because in revelation there was someone called the Son of God who came into human history in the image of man to *reveal* (not hide) the Father (*John 14:8-9*). The Son of God even called Himself the Son of Mankind (repeatedly) in the Gospels. The standard against which our understanding of God is measured must be the Scripture, not traditions. To the extent

that Scripture is being better understood progressively, all traditional concepts (classical or otherwise) developed in years past must be reviewed and adjusted to conform to it. They must be in harmony with the ever-expanding knowledge gained by mankind, if they are to consistently hold true without being obsolete. The growing vista of revelation comes in stages, sometimes over tumultuous ones no doubt.

God's perfections

To the author, God's "perfections" must refer to his qualities which are unsurpassable by any other being, except by Himself. God has unsurpassed power and knowledge, and He is exalted beyond all possible rivalry. The unsurpassability of God's power, knowledge and goodness is what makes Him worthy of worship. The eternal God is a living God, not immutable, but "unborn and undying."^{*15} The use of the word "perfect" in Scripture frequently refers to the heart in moral uprightness, blamelessness, wholeness or maturity. In *Matthew 5:48*, we read: "*Therefore you shall be perfect, just as your Father in heaven is perfect.*" Yes, it looks like humans too can and ought to become perfect or mature as God is. The import of this statement of Christ is tremendous. We will come back to this again in a later chapter.

Image and Complexity of God

What is God like? Is He/It an amorphous spiritual stuff without shape or form? And from Such came created forms? Is God simple or complex? Is He more complex than man? From time immemorial, people have been trying to know God, to know what He looks like. Our first parents did not see the invisible God face to face, they only heard His voice from the sky and received other indirect evidence of His presence such as the "the sound of the LORD God as he was walking in the garden." To Adam and Eve, God was personal. They could speak with Him even though they could not see Him. In Scripture, we are told that Adam and Eve were made in the image and likeness of God (*Gen 1:26, 27*). Further, we are told that Adam at age 130 years begat his son Seth said to be in Adam's own likeness and image (*Gen 5:3*). We are again told further on, after the interruption of history by the great Noah's flood, many generations after Adam, mankind in general is still considered made in the image of God (*Gen 9:6*). Scripture is careful to tell us that there is a continuity in the passing on of the "image and likeness" of God from Adam to every generation of humankind. Do not these verses link up logically to reinforce the point that mankind is therefore theomorphic? Is this not what the phrase "image of God" really means?

It is quite clear that anthropomorphic images are also theomorphic images. Has God appeared to man in person to confirm this? The Son of God did, and he looked like man, according to the Scripture and the Christian tradition. This strengthens the theomorphic image of man further. Does the Son look like the Father? Many scriptures say that He does, and we shall look at some of them later. Can we see God (the Father)? How complex is God? The best model for understanding and visualising God is the "anthropomorphic-theomorphic" model, as expressly defined in the book of Genesis. Thereafter, all other biblical narratives treat this as a given. Thus have I been persuaded of this truth as I continue to read the Bible. Later on, we will look at more verses from Scripture within and beyond the book of Genesis reinforcing the same

thought in a most remarkable way, and the extent to which the image of God is like his Imager. Accepting the validity of this model will help resolve some crucial issues that still baffle theologians today. If created man mirrors God, as indeed the image does reflect the Imager in many ways, then God cannot be “wholly other” or infinitely different from humanity, though He be complex indeed.

At this point, we must first move on to look at several scientific researches that in my view will help enlighten theology. Talking about scientific researches and the narrow specialisation in the fields of scientific studies, we sometimes hear remarks like “we have come to know more and more about less and less until we know everything about nothing.” Such witticism is spoken in jest of course. Scientists seem to be serious about studying into subatomic particles and forces to discover what makes matter tick. Have they found the answer? Have they reached the point where their finest instruments could not go further? Have they reached the interface between matter and spirit? Can Scripture provide further light on matters beyond, behind and underlying subatomic particles and macro events? Answers to these questions are indeed available nowadays as different disciplines are moving towards a convergence.

Footnotes:

**1. This theory is being challenged by many scientists nowadays, if the internet is any guide. A search under “Big Bang theory” will provide opposing views.*

**2. V V Raman in “Reflections on Space” at Metanexus.net*

**3. A growing number of scientists are expressing doubts about the foundation of quantum science and they have derived alternative theories for the origin and mechanics (dynamics) of the cosmos. Some of them believe for example that the old Newtonian geometric model is able to provide satisfactory explanations of things in the real world without resort to the ‘spacetime’ mathematical concept used in quantum physics.*

**4. “Causation and the logical impossibility of a divine cause” (1996) by Quentin Smith in “Philosophical Topics” Volume 21, Number 1, Spring 1996, pp. 169-191. (Full article available from www.infidels.org)*

**5. The Edges of Science, p 68*

**6. From “Ultimate Physics” website: www.ultiphys.com.*

**7. The Cosmic Code, p 247*

**8. Gen 1 - God said this or that and it was so; Jer 10:12-13*

**9. Heb 1:3, Col 1:17*

**10. Isa 55:11*

**11. This axiom says that one should not increase beyond what is necessary the*

number of entities required to explain anything.

**12. "The Openness of God" by Clark Pinnock & Others.*

**13. This is clearly stated in the Gospels of Matthew, Mark, Luke and John.*

**14. Psalms 53:2, 2Chron 6:21, Neh 9:27,29, Isaiah 63:15, Dan 4:31, Matt 3:17*

**15. In the reinforcement of this thought, I am indebted to the writings of the late process thinker Charles Hartshorne.*

**16. Job 1:6, 2:1; Judg 5:20, Rev 9:1*

**17. Revelation chapter 4*

**18. Rom 8:9, 2Cor 5:5, 1Cor 3:16*