

## **How God Exists: $M_G = kE_G$**

### **Abstract**

**How to directly prove God's existence through science? God exists through the evolution of faith practice throughout human history. Faith practices have elucidated God when God was called, worshipped and gradually literarily defined. Here I propose a scientific theory on how God exists as  $M_G = kE_G$ .  $M_G$  is defined as the Mass of God,  $E_G$  the Energy of God, and  $k$  the faith constant. About 30 equations are also come up with the theory for illustrations. To develop this theory, I began by looking at Einstein's thought experiments, the principle of mass-energy equivalence and Relativity in physics as analogous approaches, to reduce the complicated concept of religious practice into a simple one. At the same time, this theory does not miss the essentials of God as a supernatural power, or energy that is also supported partially by an Eastern theological concept "Energies of God". Integrating them into an interdisciplinary theory, I therefore further define faith science here. Since this proposed theory has summarized faith practice by human beings for thousands of years, it has already been proven by human practice. To exercise this theory further, there are two major strategic approaches - neuroimaging and improved behaviours, both of which can be experimentally engaged, and are also illustrated here. Based on Faith science, directions on morality research are addressed here as well. This theory has also provided insight into bridging both science and religion, among different religions, and even between believers and non-believers.**

### A note on the abstract:

The second sentence originally was “God exists through faith practice evolution throughout human history”. Some friends and acquaintances of mine are suggesting that it should read “the evolution of faith practice” instead of “faith practice evolution”. However, this change would not reflect how I have actually derived the conclusion of “faith evolution” in my other papers, though the change is better English. Literally, the concept of faith evolution was developed from faith practice evolution while addressing some seemingly controversial readings in the Holy Bible and explaining the evolved faith.

The “Eastern theological concept Energies of God” is used to replace “modern theological concept Energies of God” in the previous edition. The term “modern” refers to “not ancient”, but it might cause some confusion. The concept “energy of God” has been used among different religions and scholars, although there is no commonly accepted definition of it. The concept “Energies of God”, however, relates to the “Essence of God” and is termed as “Essence-energies distinction”. It was critically defended in the 1300s during the Renaissance period, which was slightly earlier than the early modern age, primarily through the efforts of Gregory Palamas (1296-1359) and others according to Eastern Orthodox Christianity.

## **An Issue of Hundreds and Thousands of Years**

Perhaps believing in God is a common human activity throughout the history of mankind. Human beings have recorded this type of evolution of practicing faith for at least several thousands of years. The Holy Bible as the most popular book of God was passed on thousands of years earlier than modern science. Modern science as experimentally based observations might be incepted as early as around the 13<sup>th</sup> century.\* It formed as scientists continued believing in God, and actually most, if not all, outstanding scientists were outstanding theologians throughout the early stages of modern science.

Disbelieving in God, doubting that whether God exists, believing that God could not be understood or proved, and even questioning about God's existence on occasion, or from time to time by true God believers, all seem among regular human activities as well. Darwin and Wallace developed the early thought of natural selection, an important part of the theory of evolution with regard to the origin of life.\*\* Darwin's book, "*On the Origin of Species*", published in 1859, hypothesized that natural selection occurred after creation resulting in the diversity of life forms. Darwin often wrote to relate theology as well. His book discussing the natural selection theory actually not only began the further establishment of the theory of evolution in life science, but also initiated a debate between creation and evolution. Although he remained believing that God is the ultimate lawmaker, Darwin himself changed from believer to agnostic at his late stage of life according to some witnesses. Over the past one and a half of century, Darwin's theory of natural selection after creation became modified, to being without creation. Gradually, science teaching in biology et cetera classes began rejecting creation.

Science and religion, as represented by evolution and creation respectively, currently are in a situation of opposition or contradiction. God believers seem to accept evolution as science theory, and also try to develop or evolve creation as part of science. However, evolution believers do not accept, but in fact, put up a fight against making creation as a science discipline.

Around early spring 2008, I felt a calling. I am not sure if it was from God or from the current practical status of world affairs<sup>[1]</sup>, or from both, for doing something about science and God. The Calling seemed like a very difficult challenge: How do I directly prove that God exists, scientifically?

\*e.g. St Albertus Megnus wrote on the study of plant, "Experiment is the only safe guide in such investigations"; also see pages 46 & 51.

\*\*Here I used an order: Darwin-Wallace, obviously pro Darwin, reflecting the 2008 mainstream status, and I reversed the order in page 53. By 2009, Darwin affair was scientifically identified the first time, details in *Evolution Momentum* ISBN 9781978019782.

Many years of practicing faith have convinced many of us believers of God that the principle of the Bible is true. How truly amazing it has been that the Bible revealed the truth that science took several hundreds of years or even longer to prove. Of course like many ancient books as well as many ancient figures, including ancient scientists, the Bible may have some inaccuracies or uncertainties, just as the Bible itself told two versions of creation in Genesis.<sup>[2]</sup> The Vatican, with the Holy See, is constantly preaching or informing the advanced understanding of faith academy, and many other religious leaders throughout the world are doing the same. Therefore, those inaccuracies, uncertainties or uncheckables by current conventional wisdom in the Bible should not prevent us from seeking the truth in the Bible, but instead inspire us to do so.

Several initial attempts to design experiments in a typical biomedical laboratory have been unsuccessful. For example, one could not invite the Pope or any priest to come to the laboratory, saying - "Let the water become wine", and "let the tofu become cheese", so we can have a wine and cheese party. Thereafter, it can be concluded that thought experiments would have to be used to address the challenge of proving God's existence scientifically, at least initially before anything else can be applied or tested in an ordinary laboratory.

Several months' attempts through various facts, hypotheses and thought experimental designs have been unworkable - simply all of the engaged thought experiments could not find any way to directly prove how God exists scientifically.

### **The $MG = kEG$ Hypothesis**

During a recent review of Einstein's thought experiment of chasing light with two bodies that led to his discovery of the theory of relativity, something struck me, but I was not sure what it was. A few weeks later while reading a discussion and debate of creation and evolution, there was a mention of the strength and weakness of Einstein's well known equation  $E = Mc^2$ , where the  $E$  is energy,  $M$  is the mass, and the  $c$  is the speed of light in vacuum. Something struck me again, but I still wondered. The next early morning when my eyes opened, and immediately, a new thread of thought experiment came into light: The hypothesis proposed was - using the energy of God to prove the mass of God, thus to prove the existence of God. Here was the birth of the God energy and God mass proposal ( $EG/MG$ ). An immediate step for determining whether Einstein's equation,  $E = Mc^2$ , itself could be directly applied to test the hypothesis would be unfeasible, given that the equation was applicable to particles when the speed of a particle was slower than that of light.

The next step to further apply Einstein's Mass Energy Equivalence theory (MEE)<sup>[3]</sup> and advances made in Relativity to test if any existing theory could be applied to test the EG/MG hypothesis was also unfruitful. The theory of relativity has been studied in particle physics, the element particles that constitute the material world, as well as in cosmology, the formation of the universe, but I could not apply any of the established equations into the EG/MG proposal.

The studies then went into questioning whether the basic concepts in the EG/MG hypothesis per se were scientifically addressed or defined. An intensive search of all available scientific publications demonstrated that neither the energy of God, nor the Mass of God, and nor their relations seemed addressed. Therefore, the EG/MG hypothesis is scientifically defined here.

A further review of other academic work within on the field beyond scientific publications, such as the studies of religions, especially in theology, found that the energy of God seemed well documented in theology. "Energies of God" are a well-established core piece of theology in Eastern Orthodox Church since the middle of 14<sup>th</sup> century.

Moses Maimonides emphasized that "God is not multiple" in the 12<sup>th</sup> century; Thomas Aquinas refined "divine simplicity" in the 13<sup>th</sup> century; and Gregory Palamas elucidated "Energies of God" in the 14<sup>th</sup> century. Each of these century steps might represent some examples of the evolution of faith practice. Although the three significant steps happened in three different Church systems, Judaism, Roman Catholicism and Eastern Orthodox Christianity, respectively, they were consequently made well known by all.<sup>[4]</sup> According to Eastern Orthodox theology, God's energies can be directly experienced by human beings, and they reflect God's activities. However, the concept of Energy of God, when it is considered together with the Mass of God here in the EG/MG principle, seems to differ in some way from the theological theory of God's energies, and therefore it is being attempted to get further refined and advanced scientifically.<sup>[5]</sup>

Although God is given various names or slightly different definitions by various religions or the same religion in different time periods throughout history, God by definition is of a supernatural power, or energy. Morality, spirit and mystics are among the most important integrated God's power structures among mainstream religions such as Judaism -Christianity, Islam, Hinduism, Buddhism, Taoism - Confucianism and others, although any of the three entities may exist without coming through divinity.

"God mass" as a new concept as to how it is related to the energy of God, is introduced here as well.

“God energy” is a defined supernatural entity, but it has an impact on human beings, a natural entity, through faith practice. Therefore, faith was identified as a constant to relate the Energy of God and the Mass of God together. Faith constant may vary according to each practitioner or practice situation. Faith constant is therefore introduced as a new concept here as well.

The simplified thought experiments are shown stepwise:

$$\begin{aligned}
 & E \approx M \\
 & \downarrow \\
 & E \leftrightarrow M \\
 & \downarrow \\
 & E_G \rightarrow M_G, \\
 & \downarrow \\
 & E_G \propto M_G, \\
 & \downarrow \\
 & M_G \propto E_G, \\
 & \downarrow \\
 & M_G \propto k E_G, \\
 & \downarrow \\
 & M_G = k E_G \tag{1}
 \end{aligned}$$

M refers to Mass, a substance or an object with uniform or defined matter, and please note that the term “Mass” here is physics terminology, which differs from “Mass” in reference to a catholic church service. G is God. Therefore,  $M_G$  is an existence of God, or the Mass of God as existed. E is energy. Therefore,  $E_G$  is Energy of God, an existence of God. The non-capital k is faith constant. M can also stand for morality, and  $M_G$  is Morality mass through divinity. The equation (1) states that God exists as energy or mass that is directly related to the faith constant. The Mass of God is equal to the faith constant times the Energy of God.

When God energy is equally available, then the higher the faith constant, and the higher the mass of God will be. When the faith constant is not changed, or fixed, then the higher the available God energy, and the higher the Mass of God will be.

Vice visa, it should be true as the following:

$$E_G = k M_G, \tag{2}$$

Which is to say that the Energy of God equals the faith constant times the Mass of God.

Therefore, by putting equation (1) and (2) together, we get the following:

$$M_{G1} = kE_{G0} = kkM_{G0} = k^2M_{G0} \quad (3)$$

or

$$E_{G1} = kM_{G0} = kkE_{G0} = k^2E_{G0} \quad (4)$$

Where  $M_{G0}$  or  $E_{G0}$ , and  $M_{G1}$  or  $E_{G1}$  represent start and afterwards, respectively.

Therefore,

$$k = \sqrt{M_{G1}/M_{G0}} \quad (5)$$

or

$$k = \sqrt{E_{G1}/E_{G0}} \quad (6)$$

This says that the faith constant is reflected in the changes of  $M_G$  or  $E_G$ , or faith practice makes the changes of  $M_G$  or  $E_G$ .

Faith practice is an entity, ranging from something as simple as asking for God's help or sharing a sentiment with God, to as complicated as involving a person's whole life. Faith practice even can get to a level so complex that it involves the whole world when faith practice gets engaged among the general population. One has to reduce the complexity into simpler ones with which to work.

To illustrate the principles proposed here, prayer, one of the simplest faith practices, is being used.

In practice, when a believer consciously prays to God, focusing on inspiration, guidance, empowering, et cetera of God energy seeking, to start as  $M_{G0}$ ,

$$M_G = kE_G = kkM_{G0} = k^2M_{G0} \quad (7)$$

Or, to start from  $E_{G0}$ ,

$$E_{G1} = kM_{G0} = kkE_{G0} = k^2E_{G0} \quad (8)$$

Also, when a single practitioner prays for multiple times (1,2,3,...,n), assuming that the k is fixed,

$$\sum_1^n M_G = kE_{G0} + kE_{G1} + kE_{G2} + \dots + kE_{G(n-1)} \quad (9)$$

$$\sum_1^n M_G = k^2M_{G0} + k^2M_{G1} + k^2M_{G2} \dots + k^2M_{G(n-1)} \quad (10)$$

$$\sum_1^n E_G = kM_{G0} + kM_{G1} + kM_{G2} + \dots + kM_{G(n-1)} \quad (11)$$

$$\sum_1^n E_G = k^2E_{G0} + k^2E_{G1} + k^2E_{G2} \dots + k^2E_{G(n-1)} \quad (12)$$

But in many situations, the k may not be a fixed but varied (1,2,3,...n), therefore,

$$\sum_1^n M_G = k_1 E_{G0} + k_2 E_{G1} + k_3 E_{G2} + \dots + k_n E_{G(n-1)} \tag{13}$$

$$\sum_1^n M_G = (k_1)^2 M_{G0} + (k_2)^2 M_{G1} + (k_3)^2 M_{G2} + \dots + (k_n)^2 M_{G(n-1)} \tag{14}$$

$$\sum_1^n E_G = k_1 M_{G0} + k_2 M_{G1} + k_3 M_{G2} + \dots + k_n M_{G(n-1)} \tag{15}$$

$$\sum_1^n E_G = (k_1)^2 E_{G0} + (k_2)^2 E_{G1} + (k_3)^2 E_{G2} \dots + (k_n)^2 E_{G(n-1)} \tag{16}$$

The same would be true as well when multiple prayers (1,2,3,...,m) are presenting on the same occasion, assuming a fixed k,

$$\sum_1^m M_G = k E_{G0} + k E_{G1} + k E_{G2} + \dots + k E_{G(m-1)} \tag{17}$$

$$\sum_1^m M_G = k^2 M_{G0} + k^2 M_{G1} + k^2 M_{G2} \dots + k^2 M_{G(m-1)} \tag{18}$$

$$\sum_1^m E_G = k M_{G0} + k M_{G1} + k M_{G2} + \dots + k M_{G(m-1)} \tag{19}$$

$$\sum_1^m E_G = k^2 E_{G0} + k^2 E_{G1} + k^2 E_{G2} \dots + k^2 E_{G(m-1)} \tag{20}$$

When k is not a fixed condition, as each practitioner has a different k(1,2,3,...m),

$$\sum_1^m M_G = k_1 E_{G1} + k_2 E_{G2} + k_3 E_{G3} + \dots + k_m E_{Gm} \tag{21}$$

$$\sum_1^m M_G = (k_1)^2 M_{G1} + (k_2)^2 M_{G2} + (k_3)^2 M_{G2} \dots + (k_m)^2 M_{Gm} \tag{22}$$

$$\sum_1^m E_G = k_1 M_{G1} + k_2 M_{G2} + k_3 M_{G3} + \dots + k_m M_{Gm} \tag{23}$$

$$\sum_1^m E_G = (k_1)^2 E_{G1} + (k_2)^2 E_{G2} + (k_3)^2 E_{G3} \dots + (k_m)^2 E_{Gm} \tag{24}$$

Therefore, having gone this far, the equations (17-24) may actually enable theoretically to formulate all the M<sub>G</sub> or E<sub>G</sub> within all practitioners (from 1 to m) of the whole world at one uniform occasion.

A closer look at an individual's M<sub>G</sub> inside the mind and body compared to different situations has led to additional equations.

At rest, the M<sub>G</sub> within the body may be less than that at motion. For example, when a priest is preaching, the M<sub>G</sub> may be much more than that when the same priest is at rest.

$$M_{G(\text{total})} = M_{G(\text{rest})} + M_{G(\text{motion})} \tag{25}$$

At rest, the M<sub>G</sub> in one's brain would be an interesting thing to find out.

Theoretically, the M<sub>G</sub> could be anywhere or everywhere (1,2,3,...q) in the brain when those areas are connected to God, depending on one's relationship to God.

When one feels fear or is in danger and asking God's help, the M<sub>G</sub> would be present at several areas including the Amygdala, which is functioning when strong emotion and fear occurs. When one experiences the enjoyment and love of God, the M<sub>G</sub> would exist in a number of areas including Caudate nucleus.



When one is studying to be a follower of Christ, to guide one's life through church teachings, one's brain and body is systematically organizing one's life according to the Church teachings. MG would first appear in the prefrontal area in the frontal lobe of one's brain for short term memories, and as long time memories develop, MG would appear as semantic memory, episodic memory and or skill memory throughout the sensory association areas of the cerebral cortex, as well as in hippocampus when the stored information is gathered for use. Long-term potentiation (LTP) in synapses is also used for memory storage. Amygdala, limbic system, neuroplasticity, neurocircuits, neuron dendritic cells, newly generated cells, neurotransmitters, DNA, RNA and protein et cetera would all play a part in the MG.

Therefore,

$$\sum_1^q M_G = M_{G1} + M_{G2} + M_{G3} + \dots + M_{Gq} \quad (26)$$

Where 1-q are the all-available parts of MG in one's body, particularly in one's brain.

### **To Further Exercise the Theory**

As the theory of MG/EG proposed in this report actually summarized thousands of years' evolution of faith practice, it could be considered already proven by human practice. To further excise the theory, experiments could be designed under the principles of this theory. Here, two strategies are illustrated.

The locations of MG in the brain not only could be theoretically formulated as stated the above, but also could be tested in an ordinary laboratory based on the current development of neuroscience.

Among several laboratory experiments sought to test the  $M_G = kE_G$  theory, neuroimaging was among actual feasible approaches, as Positron Emission Tomography (PET), Single Photon Emission Computed Tomography (SPECT), functional Magnetic Resonance Imaging (fMRI), Magnetic Resonance Spectroscopy (MRS), multichannel electroencephalography (EEG), Near Infrared Spectroscopic Imaging (NIRSI) and so forth have been able to detect the functional changes of brain. All of the neuroimaging technologies are with advantages versus disadvantages respectively. The design of the laboratory investigation under the EG/MG theory, especially would not be reduced into meditation, mystic experience, spirituality or intelligence et cetera\* that may cause the missing of the essentiality of God. For example, the prayer would need to be very clear that the context is directly communicated with the defined God, like "*The Lord's Prayer*", to compare the changes before and after prayer, and or the differences between experienced clergy versus novices versus other controls.

\* After the scientific proof of God's existence all these reduced means are valid science, not "pseudoscience" as some scientists claimed.

Those types of locations detected by neuroimaging would directly demonstrate the  $M_G$  areas in the brain. The detected or visualized functional brain areas define the location(s) of  $M_G$  (measured).

Therefore,

$$M_{G(\text{measured})} = \sum_1^i M_G = M_{G1} + M_{G2} + M_{G3} + \dots M_{Gi} \tag{27}$$

Where the “(1- i)” is all-measurable  $M_G$  located by an instrument with designed protocol.

Another approach sought to test the  $E_G/M_G$  theory is the behavior measurement. Behavior is defined as the reactions or actions of persons or things under given circumstance. The method here is to measure the output scale of the actual feeling, thinking and doing et cetera to score the effect of  $M_G$ . For example, after a Church attendance, one felt better, and also changed his mind when he thought to be fair to others around him was good enough. After he listened to Fr. John preach, he strongly felt that one should love others as well. “Love your neighbor” would be more than just “to be fair” to them. The next time when he went to the supermarket, he saw fresh fruit and he bought more, so that he could give some to his neighbor as well. Here we have at least three changed behaviors; one is feeling (feel better), the other one thinking (“love one’s neighbor as oneself”), and still the other one acting (offer fruit). Therefore, the faith constant  $k$  could be measured not only through changed  $M_G$  or  $E_G$ , but also through a behavior score system. The changed behavior is defined as  $\Delta B$ . The relationship between  $k$  and  $\Delta B$  is summarized as follows:

$$\begin{aligned} k &\propto \Delta B \\ &\downarrow \\ k &\approx \Delta B \\ &\downarrow \\ k &= \Delta B \end{aligned} \tag{28}$$

Where in equation (28), improved behavior(s) ( $\Delta B$ ) are conceptually considered as the faith practicing result (confounders should be excluded).

$$k = \sum_1^p k = k_1 + k_2 + \dots k_p \tag{29}$$

To combine equations (28) and (29),

$$k = \sum_1^p k = k_1 + k_2 + \dots k_p = \sum_1^p \Delta B = (\Delta B)_1 + (\Delta B)_2 + \dots (\Delta B)_p \tag{30}$$

Where 1- p stands for all scored behavior changes related to  $k$ .

Therefore, the equations (28-30) formulate that the actions in faith practice could be measured, or the transformation on a human being from the power of God could be measurable by the behaviour improvement.

## Current Morality Research Directions

MG can also stand for Morality mass through divinity. It states that morality is the single most important component of EG in many situations. Although morality could exist without divinity, morality through divinity has a particular advantage throughout the history of faith practicing.

Morality research based on Faith science is proposed here. Rather than focusing on treating people fairly, the church teaching is love, “love your neighbor as yourself”, as it appeared in both the Old Testament and the New Testament of the Bible. It is a typical transcendental way and also a mystery to many who are not familiar with church teachings. It is described as transcendence because it deals with more than just fairness. It actually should work better than just teaching people to treat others fairly. It is a mystery to many people because it appears hard for many to understand; “Even though I do not know you, how come should I treat you as if I love you like I love myself?” This is why the Bible is a book or the Church teaching is able to transform a human being. The directions of this proposed research on morality is different from some current mainstream research that primarily focuses on fairness and harm. It adds other important concepts such as loyalty, authority and spiritual purity.<sup>[6]</sup> In fact, all other factors studied by the current mainstream research could be simply reduced to fairness. But both theoretically and practically, the teachings from the Bible over thousands of years of “love your neighbor as yourself” should be a better one than just fairness.

## Faith Science Initiatives

When faith practice could be directly, scientifically and successfully approached, faith science can be defined. From  $E = mc^2$  to  $M_G = kEG$ , an interesting step was made to bridge science and religion and to advance both at the same time. In particular, advancing Mass-Energy Equivalence theory in physics into life sciences and advancing Energies of God in theology into more scientifically defined disciplines have been made possible when the  $M_G = kEG$  theory was developed. In fact, the theory presented here would have also built bridges among different religions even between believers and non-believers as well. The progress made through scientific and theological breakthroughs would provide a common language for all.

Good faith is essential for a better world, so it is vital for a better society locally. Defining how good faith has evolved through combined multidisciplinary effort would not only benefit all of us contemporarily but also it would lead the right directions for the remainder of the new century and new millennium(s).

## Note and References

1. For examples of current bitter relationship between religion and science see *Science*, **319**, 12, (2008); *Science*, **322**,1038, (2008); *Nature*, **451**, 1030, (2008); *Nature*, **455**, 431, (2008); *Nature*, **456**, 281, (2008); *John Templeton Foundation*, “Does science make belief in God obsolete?” (2008).
2. Genesis1 and Genesis2, *The New American Bible*, p 8-9 World Bible Publisher Inc., 1991.
3. Einstein, A. *Annalen der Physik*, **18**, 639, (1905). An English translational version is available at: [http://www.fourmilab.ch/etexts/einstein/E\\_mc2/e\\_mc2.pdf](http://www.fourmilab.ch/etexts/einstein/E_mc2/e_mc2.pdf) (Retrieved during 2008 - July 21, 2012); For examples for contemporarily in-depth review of Relativity, see “Einstein’s Legacy-Challenges In Physics”, *Science*, **307**, (2005).
4. In fact, the faith practice evolution has not been recognized in theology. Although by 1351, the Council of Blachernae solemnly upheld the Orthodoxy of Palamas teaching, and the Energies of God became the center principle of the Eastern Orthodox Church sometime thereafter, it seemed not well recognized by other churches. For example, in Roman Catholic teachings, the energies of God is generally not mentioned and could not be found in Catholic doctrines. However, as Church teachings in general focus on the liturgies, the Bible verses in particular, all the Christian churches, therefore, teach the same principles from the Bible.
5. For definitions of Energy of God, the Eastern Orthodox theology defined the energies of god with obvious divine features (like many other theological definitions of the energy of God) that would hardly be reproduced scientifically. Therefore, the scientific community would not accept this at the current stage, and therefore they are not discussed in details here. But one can easily conclude that the energy of God has double features: one is of defined supernatural, and the other one is of natural that could be experienced by a human being.
6. For examples of morality research in mainstream science, see: *Science*, **320**, 734 (2008); *Nature*, **455**, 1038, (2008).

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“I cannot conceive of a genuine scientist without that profound faith. The situation may be expressed by an image: science without religion is lame, religion without science is blind.”

-- Albert Einstein (1879-1955)



## **Genesis: A Vision of Evolution, Creation and More**

### **Abstract**

**Historically, the idea of evolution could be traced back to as early as the 6th century BC, when Greek philosopher Anaximander hypothesised that aquatic apes evolved into human beings through mutations. Was there anything earlier than the Greek philosopher's work regarding the idea of evolution? Here, a hypothesis proposes that the Creations in Genesis in the Holy Bible might have also reflected the very idea of evolution. To test the Genesis and Evolution hypothesis, the basic principles of evolution theories were used to analyse the events in Genesis. It is found that Genesis also reflected the idea of evolution.**

Evolution is the process in which something changes into a different and usually more complex form. In biology, evolution currently refers to both descent with modification and adaptation to the environment. In fact, the concepts of biological evolution were evolved continuously throughout its history. Historically, the idea of evolution could be traced back to as early as 6<sup>th</sup> century BC, when the Greek philosopher Anaximander (c.610BC-c.546BC) contributed to the idea of evolution as his aquatic ape hypothesis stated that an aquatic ape evolved into a human being through a series of mutations. Was there anything earlier than Anaximander's work regarding the idea of evolution?

A hypothesis was devised and suggests that the Genesis in the Holy Bible might have also reflected the idea of evolution. To test this hypothesis, the most fundamental principles of current evolution theories were used to analyze the events in the Book of Genesis.

The origin of life is currently theorized as two major steps: Chemical Evolution and Biological Evolution. The Chemical evolution started as the earth cooling, inorganic chemicals appeared and evolved into organic chemicals; these smaller, simpler organic chemicals evolved into macromolecules which can carry more complicated functions and eventually were able to self-replicate and self – protect, eventually forming the protocell - the origin of the very first cell. The first cell, evolved from the protocell is what began biological evolution. The single cell evolved into multicellular organisms, which are consisting of cells performing cooperatively to achieve more complicated functions, for example, photosynthesis. Eventually, plants were formed. Then, animals evolved and were able to travel voluntarily. Finally, highly intelligent human beings appeared. See the following Figure 1.

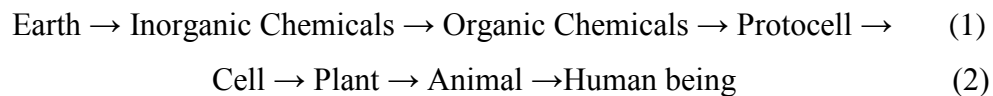


Fig. 1: Origin of life and evolution pathways. (1), Chemical Evolution; (2), Biological Evolution

The Book of Genesis, especially the first chapter was re-visited and analyzed, bearing the above fundamental processes of evolution theory in mind. It was found that although Genesis was essentially displaying God's power by creating the havens and the earth in the beginning, and then everything else, it did reflect the evolution principle as well.<sup>[1]</sup> First, there is the earth and heavens, and then there is



the wind, then the light, then the plants, then the animals, and finally the human being. Especially, in the most fundamental steps, from no life to life, it presented the earth / water / wind / light etc, and in the organisms' part, it accurately, at least as accurate as possible at that ancient time in their vision, or God's vision, stated the evolutionary principle, from simpler to more complicated, from plant to animal to human being. (Fig. 2)

$$\text{Earth} \rightarrow \text{Water} \rightarrow \text{Wind} \rightarrow \text{Light} \rightarrow \text{Plant} \rightarrow \text{Animal} \rightarrow \text{Human} \quad (3)$$

Fig 2. Conclusion from revisited Genesis. (3), Genesis Vision of Evolution and Creation

Or a critical step as Fig. 3.

$$\begin{array}{c} \text{Earth} \\ \text{Water} \\ \text{Earth} \rightarrow \text{Wind} \rightarrow \rightarrow (\text{life}) \\ \text{Light} \\ \dots \end{array} \quad (4)$$

Fig. 3. Genesis vision before life forms evolved/made. (4), The most critical portion of origin of life

For life forms as Fig. 4.

$$\text{Plant} \rightarrow \text{Animal} \rightarrow \text{Human} \quad (5)$$

Fig 4. Genesis vision of life formed consequently. (5), Biological evolution and end significances

The formula (4) illustrated the most critical portion of the very beginning of life: the earth, the water, the wind and the light. All are major natural environments to foster evolution, from cooling earth, to inorganic chemicals, to organic chemicals, and so on. The formula (5) also summarized the major steps of biological evolutions.

If we compare formulas among (1) to (5), we would find that all essentially addressed the same evolutionary ideas. The two steps of chemical evolutions and biological evolutions are all covered by the events in Genesis. Formula (4) and formula (5) are very similar to formula (1) and formula (2) in

general principles, respectively. The difference was that in Genesis the end results was attributed to God's hand (or God's creation).

If it was evolution, why creation? One of the explanations is that through or adding the creation ideal that it would make the evolution not only credible and truthful, but also tangible. God can do it. Man was made in God's image and his likeness. Man can do it too. Do we not currently make effort along the way? We do. For an example, it could be comfortably predicted that scientifically to develop self-replicable RNA, DNA, Protein or other functional molecules would fill the gap from lifeless form to life form.

Therefore, the most effective argument here could be that whatever God's Creation or Mother Nature, those were reflecting the evolutionary consequences, and therefore the ideas on evolution.

Another possible argument concerns the time frames in Genesis regarding the evolutionary ideas. God did all the creation in several days, and several days remained a reflection of time consequences. Was 6 days' creation representing millions of years? Was 6 days' creation unscientific? It is unscientific to the scientific community. The theological explanations also pointed out, "According to the highly artificial literary structure of Genesis, God's creative activity is divided into six days to teach the sacredness of the Sabbath rest on the seventh day in the Israelite religion."<sup>[1]</sup>

Therefore, the above discussion would lead to the thought as indicated in the title of this paper that Genesis is a vision of evolution, creation and more, or a mixture of ancient science, theology and others.

Conclusions: The above report demonstrated that the evolutionary ideas could be traced back at least as early as what stated in the Book of Genesis in the Old Testament of the Holy Bible, or at least 15<sup>th</sup> century BC or earlier.

Not only God's existence could be scientifically proven [2], but also the Book of God, the Bible could have precious scientific values as reported here, though this was not the first to prove Bible's science values.

## Reference

1. Genesis1, *The New American Bible*, p 8-9 World Bible Publisher Inc., 1991.
2. Yang, C. How God Exists: MG = k EG, 2008

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