Is it Fallacious that Creation of the Earth is Ongoing?
A Rejoinder from Geographic (Science) and Religious Perspectives

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Abstract
Arying from inconsistencies and controversies among scholars as regards the discovery, classification and re-classification of planets in the Solar System, this paper endeavored to find answers to the following questions. How many planets are currently in our Solar System? Is planetary formation ongoing? Could it be concluded that creation of the Earth is ongoing? In providing answers to these questions, this study revisited the theories of creationism and evolutionism. The paper was not occupied in the debate between creationists and evolutionists but attempted to strike a balance between religion and science. Accordingly, this study juxtaposed the perceptions of Christianity; Islam; and Geography about the creation of the Earth. This study revealed that Christian and Islamic scholars agreed that God/Allah created the Earth, but the precise duration of its creation days as recorded in the Bible and Quran remains a debate. Both Hebrew word “Yom” and Arabic word “Yawm” denoted periods not precisely defined. Christian and Islamic scholars did not rule out the possibility that the creation of the Earth is still on going. However, to some Christians, the discovery of and subsequently re-classification of planets in the Solar System does not necessarily indicate that they were newly created. Probably with the advancement in science, technology and man’s ingenuity they were just been discovered. Both theories of Big Bang and Expanding Earth fell short of explaining whether the creation of the Earth is ongoing. This paper concluded that the puzzle surrounding the ongoing creation of the Earth is yet to be resolved.

Keywords: Solar System, Creationism, Evolutionism, Geography, Christianity, Islam.

Introduction
There appears to be contradictions about the number of planets in the Solar System amongst scientists. These contradictions may get some people irritated when asked about the number of planets in the Solar System. To some, it is either nine or eight. To others, it could be ten, or more. In the 1970s while at the primary school we were taught that there were nine planets in the Solar System. Then these planets were Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune and Pluto. In the late 1990s, some astronomers doubted the planet hood of Pluto. In 2005, Mike Brown discovered Eris, an icy object thought to be about the same size as Pluto, out beyond its orbit. That would bring the total number of planets to ten. Right? If this is correct, then textbooks in subjects such as Geography, Physics, Basic Science and Social Studies would need to be updated.

In order to settle these seeming inconsistencies as regards the number of planets in the Solar System, the International Astronomical Union (IAU) met in 2006 and argued for and against Pluto’s planet-hood. According to the IAU”’s definition, a planet is “a celestial body that (a) is in orbit around the Sun, (b) has sufficient mass for its self-gravity to overcome rigid body forces so that it assumes a hydrostatic equilibrium (nearly round) shape, and (c) has cleared the
neighborhood around its orbit.” Some astronomers advocated widening the number of planets to twelve, including Pluto, its moon Charon, the Asteroid Ceres, and the newly discovered Eris. At the end of the meeting, IAU changed the definition of what makes a planet, and sadly, Pluto did not make the cut. Since Pluto is part of the Kuiper Belt, and therefore did not meet the third criterion, it is no longer considered a planet. Instead, it is classified as a dwarf planet. Other dwarf planets include Ceres, Haumea, Makemake and Eris. This is as contained in the scholarly work of Britt (2016). Since the discovery of Pluto in 1930, it was regarded as the ninth planets of our Solar System. In the late 1990s, astronomers doubted whether Pluto was a planet. In a highly controversial decision, the IAU ultimately decided in 2006 to call Pluto a “dwarf planet,” reducing the list of “real planets” in our Solar System to eight. Arising from this definition by IAU, there seems to be a short-lived consensus among scientists as regards the composition and number of planets in the Solar System. For instance, according to scholars such as Cain (2013) and Temming (2014) the eight planets are Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune. The four inner Solar System planets (Mercury, Venus, Earth, and Mars) fall under the category of terrestrial planets; Jupiter and Saturn are gas giants (giant plants composed mostly of hydrogen and helium) while Uranus and Neptune are the ice giants (containing mainly elements heavier than hydrogen and helium). As such, our Solar System is presumed to be made up of a star, the Sun, eight planets, five dwarf planets (all the planets that orbit our Sun), 146 moons, a bunch of comets, asteroids and space rocks, ice, dust and gas.


Excitingly, the controversies surrounding the actual number of the planets did not subside, it still continues. For example, another Kuiper Belt object dubbed Quaoar, which is probably massive enough to be considered a dwarf planet, but it has not been classified as such yet. Sedna, which is about three-fourths the size of Pluto, is the first dwarf planet discovered in the Oort Cloud. NASA’s New Horizons mission performed history’s first flyby of the Pluto system on July 14, 2015, and continues to explore the Kuiper Belt. Also a scientist Charles (2016) added “astronomers are now hunting for another planet in our Solar System, a true ninth planet, after evidence of its existence was unveiled on Jan. 20, 2016. The so-called "Planet Nine," as scientists are calling it, is about 10 times the mass of Earth and 5,000 times the mass of Pluto”.

Owing to these contradictions, inconsistencies and controversies among scholars and scientists; the discovery and the subsequent classification and re-classification of planets in the Solar System, some questions are begging for answers. First, how many planets are currently in the Solar System? Secondly, is it conceivable that planetary formation is ongoing within our Solar System? Lastly, could we conclude that creation of the earth is an ongoing process?
In an attempt to provide simple but logical answers to these mind boggling questions, this study will revisit the theories of creationism and evolutionism. The paper will not be immersed in the hot debate between creationists and evolutionists, but will concern itself with these theories’ explanations of creation of the Earth and the life forms (man, animal and plant). More importantly, the study attempts to strike a balance between the religion and science. Accordingly, this study will juxtapose the perceptions of (i) Christianity and The Bible; (ii) Islam and The Quran; and (iii) Geography and other branches of Earth Sciences; about the creation of the planet Earth, the life forms therein contained and the rest of the universe.

**The Theory of Evolution**

Evolution is essentially the biological model for the history of life on Earth. Robinson (ND) described the theory of evolution as the gradual change in species of plants and animals, starting with a very primitive single-celled life form, and ending … at least currently … with human beings. Humans and higher apes are believed to have had a common ancestor. Charles Robert Darwin, (12 February 1809 – 19 April 1882), an English naturalist and geologist, best known for his contributions to evolutionary theory. He established that all species of life have descended over time from common ancestors. According to him, the birds and the bananas, the fishes and the flowers are all related. Darwin's general theory presumes the development of life from non-life and stresses a purely naturalistic (undirected) "descent with modification". That is, complex creatures evolve from more simplistic ancestors naturally over time. In a nutshell, as random genetic mutations occur within an organism's genetic code, the beneficial mutations are preserved because they aid survival: a process known as "natural selection." These beneficial mutations are passed on to the next generation. Over time, beneficial mutations accumulate and the result is an entirely different organism (not just a variation of the original, but an entirely different creature).

Changes that allow an organism to better adapt to its environment will help it to survive and have more offspring. Evolution by natural selection is one of the best substantiated theories in the history of science, supported by evidence from a wide variety of scientific disciplines, including Geography, Paleontology, Geology, Genetics and Developmental Biology. Darwin published his theory of evolution with compelling evidence in his 1859 book “On the Origin of Species”. Puzzled by the geographical distribution of wildlife and fossils he collected on the voyage; Darwin began detailed investigations and in 1838 conceived his theory of natural selection. Although he discussed his ideas with several naturalists, he needed time for extensive research and his geological work had priority. Darwin in a joint publication with Alfred Russet Wallace introduced his scientific theory that this branching pattern of evolution resulted from a process that he called natural selection in which the struggle for existence has a similar effect to the artificial selection involved in selective breeding.

**The Theory of Creation**

“Creationism” is the belief that God brought into being the universe and all life forms. Creationism could also be referred to as creation myths, or as a concept about the origin of the soul. Creationism is the religious belief that the universe and life originated "from specific acts of divine creation." Creationism developed along several lines giving rise to a number of theological models accounting for humanity's presence in the world. These ideologies have religious faith and divine revelation. Creationists argue that the biblical creation account does not contradict true science. Nevertheless, scientific hypothesis testing and religious faith constitute radically different means of coming to knowledge of the universe. The former deals with the production of facts while the latter deals with the search for truth. They arise from two
irreconcilable paradigms. One focuses upon general revelation and the other upon special revelation.

For young Earth creationists, this includes a biblical literalist interpretation of the Genesis creation narrative and the rejection of the scientific theory of evolution. As the history of evolutionary thought developed from the 18th century on various views aimed at reconciling the Abrahamic religions and Genesis with biology and other sciences developed in Western culture. Those holding that species had been created separately (such as Philip Gosse in 1857) were generally called "advocates of creation" but were also called "creationists," as in private correspondence between Charles Darwin and his friends. As the creation–evolution controversy developed over time, the term "anti-evolutionists" became common. In 1929 in the United States, the term "creationism" first became associated with Christian fundamentalists, specifically with their rejection of human evolution and belief in a young Earth. This usage was contested by other groups, such as old Earth creationists and evolutionary creationists. The Earth creationists and evolutionists hold different concepts of creation, such as the acceptance of the age of the Earth and biological evolution as understood by the scientific community.

**Creationism versus Evolutionism**

Some authors attempted a synthesis of the theories of creation and evolution. For instance, Gish (1995) saw both theories as attempts to explain the origin of the universe and of its inhabitants. According to the scholar there were no human observers to the origin of the universe and life. “Creation and evolution exhaust the possible explanations for the origin of living things. Organisms either appeared on the Earth fully developed or they did not. If they did not, they must have developed from pre-existing species by some process of modification. If they did appear in a fully developed state, they must, indeed, have been created by some omnipotent intelligence. Thus, creation is as scientific as evolution, and evolution is as religious as creation.

According to Strandberg (ND) evolutionists and creationists have many differences, but they share one common trait. They tend to oversimplify their explanations of the process by which life began. While Creationists make their over-simplification error by claiming the world around us can easily be described by the information found in the Bible, which they frequently try to portray as an all-inclusive scientific document. Despite the claims by some Christians, God's Holy Word should not be conceived as a book of science. The Bible is factual, but because it makes such broad statements about our complex world, it is counterproductive to try to go beyond its original text.

Creationists often claim that the deep oceanic trenches are fountains of the deep that eject most of the water that comprised the Noadic Flood. Geologists point out that the Earth's core is hot just up to its crust and these trillions of gallons of water would come out as superheated steam. Because God could have acted supernaturally at any point in history, it is dangerous to assume that any Bible passage can be explained with scientific methodology.

The triumph of creationism over evolution is not about finding that one piece of evidence that will settle the debate. Our generation is drowning in a sea of information. Because two people can look at the same data and come up with different conclusions, we need to turn to God for a resolution to this issue. God has set up a very clever system for revealing himself to mortal man: He discloses the truth to people who humble themselves and hides it from those who are proud. If you reject God out of pride, the light of the truth will pass you by. "Draw nigh to God, and he will draw nigh to you" (Jam. 4:8). "The fool has said in his heart, there is no God" (Psa. 14:1; 53:1).
The Christian Perception of the On-going Creation of the Earth

Owing to the discovery of and/or re-classification of planets in the Solar System (as earlier explained in the introductory part of this study), could we conclude that creation is an ongoing process? Did God complete the work of creation in six literal or metaphorical days? In the literature, attempt to answer these questions led to serious debates amongst bible scholars. The essence herein is to establish whether Earth’s creation is still on-going.

To start with, among the Christians, there appears to be a consensus about the belief that God created the heaven, stars, moon, life forms and non-living things therein contained in the Earth. This position is supported by several Christian authors such as Robinson (ND), Durowoju & Onuka (2015) and Adeboye (2016). They held the belief that God is the creator of the heaven and Earth. These authors quoted copiously from relevant portions of the Bible. Such verses include Genesis 1: 1-2: 3; Proverbs 8: 22-23; John 1:1; Psalm 19:1-2 and Psalm 8:3-4. Adeboye (2016) said that the Heavens declare His glory and His perfect creativity is revealed in nature; the beautiful landscape, waterfalls, valleys and all the rivers in their places; the beautiful flowers and birds that sing, all the animals of the Earth, and the abundant life under the seas; the moon, the stars and the heavenly hosts, the appointed seasons, all these are wonders of His creation. Also, God created the clouds above and strengthened the fountains of the deep. He decreed to the sea, that the waters should not pass the set boundary when He appointed the foundations of the Earth.

However, the precise duration of the creation days as recorded in the Bible especially in Genesis chapters 1 and 2 remains an area of debate among Christian authors such as Kulikovsky (1999), Thompson (2002) and Ross (2014). By extension, there seems to be no consensus among these authors about whether the creation of Earth is still ongoing. To some authors like Robinson (ND), the origin story as contained in the book of Genesis describes the creation of the Earth, its life forms, and the rest of the universe as happening in six intervals of time. According to the scholar, each day is defined by the Hebrew word "Yom." However, conservative Christians differed on the precise meaning of "Yom," which is generally translated as "day." Various groups defined "day" as representing either a standard 24 hour day; indefinitely long intervals, perhaps hundreds of millions of year’s duration; or a 24 hour day, but with the first and second day separated by a very long time interval. In short, some Christians object to a literal Creation Week by claiming that the seventh day on which God rested was not an ordinary day.

To some Christians, with creation, God does not abandon his creatures to themselves. He not only gives them being and existence, but also and at every moment, upholds and sustains them in being, enables them to act and brings them to their final end. Recognizing this utter dependence with respect to the Creator is a source of wisdom, freedom, joy and confidence. In other words, without God's continual work, nothing could continue to exist. It is a separate kind of work from the work of Creation. As Ryan Frame said, the discovery of new stars does not mean that they were created recently. Also, the birth of new stars (or animals, or people for that matter) does not imply new creation. God had set in motion at the time of creation the mechanisms by which they are created (coalescing matter clouds, sexual reproduction). That was the work of creation. The bringing-to-birth is the work of sustaintment.

It would appear that Creation is an ongoing process in view of John 5:17. “But Jesus answered them, My Father worketh hitherto, and I work”. By interpretation, this could mean that God that created the earth keeps working. To these scholars, the discovery of and subsequently re-
classification of planets in the Solar System does not necessarily indicate that they were newly created. Probably with the advancement in science, technology and the ingenuity of man, they were just being discovered. According to the latter group of scholars, God finished creation within six days and rested on the seventh day. Compare Gen. 2:2. “And on the seventh day, God ended his work which he had made; and he rested on the seventh day from all his works which he had made”.

The Islamic Perception of the On-going Creation of the Earth

It appears that Islamic scholars such as Huda Islam Expert (2016), Muhammad (ND) and Ashraf (2016) agreed that Allah created the heavens, sun, moon and the Earth. According to Ashraf (2016) Allah created the sun, the moon, and the planets, each with their own individual courses or orbits. "It is He who created the night and the day, and the sun and the moon; all (the celestial bodies) swim along, each in its rounded course" (21:33). Furthermore, Ashraf (2016) quoted the following Quranic verses to establish that the life contained in the universe is solely created by the Almighty (God) Allah and He is the Supreme Ruler of the universe.

- God is the Creator of everything; he is the One, the Omnipotent (13: 16).
- God is the Creator of everything and He is in charge of everything (39: 62).
- Originator of Heaven and Earth, and whenever He decrees something, He says to it: „Be” and it is (2: 117).

Ashraf (2016) opined that the Quranic account of creation of the Earth is in line with modern scientific thought about the development of the universe and life on Earth. Muslims acknowledge that life developed over a long period of time, but see Allah as the power behind it all.

There is also consensus among the Islamic authors about “the six day” creation of the earth. They also quoted amply from the Quran (7:54) to establish that Allah created the heavens, Earth and all that are therein contained within six days. Just like the biblical account of the creation of the Earth, the "six days" in the Arabic word "yawm" (day), each denoting a different measurement of time. In one case, the measure of a day is equated with 50,000 years (70:4), whereas another verse states that "a day in the sight of your Lord is like 1,000 years of your reckoning" (22:47). Yawm is thus understood, within the Qur'an, to be a long period of time; it could be an era or eon. The length of these periods is not precisely defined, nor is the specific developments that took place during each period.

A rider to the duration of the creation of the Earth is the widely held belief among Islamic scholars that Allah made all living things from the water. Thus as the Quran declares that Allah "made from water every living thing" (21:30). Another verse describes how "Allah has created every animal from water. Of them are some that creep on their bellies, some that walk on two legs, and some that walk on four. Allah creates what He wills, for truly Allah has power over all things" (24:45). These verses supported the scientific theory that life began in the Earth's oceans. In addition, the Huda Islam Expert (2016) drew attention to the word "expanding" as used in the present tense and not in the past which again is in agreement with the fact that the expansion of the universe is a continuous process. A position supported by Muhammad (ND) while quoting from the Quran "and the heavens we created with might (power) and we are expanding it." (51:47).

Allah is never "done" with His work, because the process of creation is ongoing. Each new child who is born, every seed that sprouts into a sapling, every new species that appears on Earth, is part of the on-going process of Allah's creation. "He it is who created the heavens and the Earth in six days then established Himself on the Throne. He knows what enters within the
heart of the Earth, and what comes forth out of it, what comes down from heaven, and what mounts up to it. And He is with you wherever you may be. And Allah sees well all that you do" (57:4).

While Islam recognizes the general idea of the development of life in stages over a period of time, human beings are considered as a special act of creation. Islam teaches that human beings are a unique life form that was created by Allah in a special way, with unique gifts and abilities unlike any other: a soul and conscience, knowledge and free will. In short, Muslims do not believe that human beings randomly evolved from apes. The life of human beings began with the creation of two people, a male and a female named Adam and Hawwa (Eve).

Capping the discussion on the Islamic perspective about the creation of the Earth is the command of the Allah that led to the exploration of the Earth. This command of Allah consequently led to the emergence of some disciplines. This is as stated by El-Najjar (ND) when the author quoted verses 19-20 of Surat Al-'Ankaboot (Chapter 29) of the Holy Quran, Allah, praise to Him, has commanded us to travel through the Earth to study how He began His creation in order to explain to us how He can repeat it again in the Hereafter. Thus, the emergence of anthropology, biology, geology, geography and all other sciences which investigate how the Universe, including our Solar System, started, how life began and has continued on our planet, represent an implementation of this divine command. Other verses relevant to the discussion of the creation of the Earth are as re-presented.

- Do they not see how Allah began the Creation, then repeated it? That is easy for Allah (to do) (Al-'Ankaboot, 29: 19).
- Travel through the Earth and see how He began the Creation. Then, Allah makes the latter Creation. Allah is capable of (doing) everything (Al-'Ankaboot, 29: 20).
- We have built the heaven with (the power of our) hands, and we are expanding (it) (The Holy Qur’an, Surat Al-Dhariyat, Chapter 51, Verse 47).

The scientist perception of the on-going creation of the Earth

In an attempt at finding answer to the ongoing creation of the Earth from the scientific perspective, the age long theories of the “Big Bang” and the “Expanding Earth” were herein considered relevant. The Big Bang Theory (BBT) is an effort to explain what happened at the beginning of our universe. According to the standard theory, our universe sprawled into existence when it exploded from an incredibly hot, dense point, known as a singularity around 13.7 billion years ago. According to Williams (2015), the consensus among scientists, astronomers and cosmologists is that the universe was created in a massive explosion that not only created the majority of matter, but the physical laws that govern our ever-expanding cosmos, this is known as The Big bang. Another scientist, Terr (2013) added that BBT is the currently accepted theory of the origin of the universe. The universe has been expanding ever since and will continue to do so.

Georges Henri Joseph Edouard Lemaitre, a Belgian Catholic priest, proposed the expanding model of the universe. He developed the theory of Expanding Earth (TEE) from the observed red shifts of celestial bodies (spiral nebulae) and calculated the Hubble law to explain that the space between galaxies is expanding, so that they appear to recede from us at velocities that increase with their distance. Lemaitre based his theory on the work of Einstein and De Sitter and independently derived Friedmann’s equation from expanding universe. In support of the Theory of Expanding Earth, Singh (2004) also a scientist said “as bizarre as it may seem, space itself is expanding specifically, the vast regions of space between galaxies. According to Einstein, space is not simply emptiness; it is a real, stretchable, flexible thing. The notion that
space is expanding is a prediction of Einstein's theory of gravity, which describes a simple but universal relationship between space, time, and matter”. This was as corroborated by Nelson (2015), a professor of Geology, that the Earth has evolved (changed) throughout its history, and will continue to evolve.

However, both theories (BBT and TEE) were heavily criticized. It is a common misconception that the Big Bang was the origin of the universe. According to scholar such as Singh (2004), the Big Bang is actually not a “theory” at all, but rather a scenario or model about the early moments of our universe, for which the evidence is overwhelming. In reality, the Big Bang scenario is completely silent about how the universe came into existence in the first place. It also failed to explain what caused the expansion and where matter did come from. The TEE was also criticised for its failure to provide a convincing mechanism to explain a mass/volume gain. This was confirmed by Schunk (2011). According to the scientist, The TEE was a plausible hypothesis that should not be condemned as foolish simply because it seems to be wrong. It was part of processes that led to plate tectonics.

In his attempt as providing answer to the question of whether planet creation is on-going in our Solar System, Booden (2013) an Earth scientist, said “no. The planets formed from a rotating nebulous disc of gas, ice and dust. That disc is no longer there, as can be clearly seen by looking up at the clear sky at any time of day or night”. The scholar added; “the only sense in which planet building is still on-going is that there is still accretion through the arrival of meteorites. However, the rate of accretion is extremely small relative to the size of the planets and there are no longer collisions between similarly-sized, planet-like objects”.

Conclusion

There appears to be consensus among Christian and Islamic scholars about the belief that the Supreme Being (often separately) referred to as God and/or Allah created the heaven, star, moon, life forms and non-living things therein contained in the Earth. However, the precise duration of the creation days as recorded in the Bible and Quran remains an area of debate. For instance, Conservative Christians differed on the precise meaning of Hebrew word “Yom” just as Islamic scholars differed about Arabic word "yawm.” The words appear to be synonymous (Yom and Yawm); each denoting a different measurement of time that indefinitely are long intervals, perhaps hundreds of millions of year’s duration. It could be an era or eon. The length of these periods is not precisely defined. However, Christian, Islamic and scientific scholars did not rule out the possibility of the expansion of the Earth.

However, to some Christians, the discovery of new stars does not mean that they were created recently, while the birth of new stars does not imply new creation. To these scholars, the discovery of and subsequent re-classification of planets in the Solar System does not necessarily indicate that they were newly created. Probably with the advancement in science, technology and man’s ingenuity, they were just been discovered.

Both Christian and Islamic scholars agreed that God created all things from the water. This is as recorded in the Bible, Gen 1: 20-22, verse 21 to be precise. “God created whales and every living creature that moveth, which the waters brought forth abundantly after their kind and every winged fowl after their kind: and God saw it was good”. Similarly, the Islamic scholars held the belief that Allah made all living things from the water. Islam also recognizes the development of life in stages, over a period of time, but does not believe that human beings randomly evolved from apes. Rather the life of human beings began with the creation of two people, Adam and Eve.
Arising from the short-lived popularity, consensus and criticisms of both scientific theories of The Big Bang and Expanding Earth among Earth Scientists such as cosmologists, astronomers, geologists and geographers it appears both theories fell short of offering generally acceptable explanation of the origin of our universe. It could then be said that science, like religion, cannot adequately say whether the creation of the earth is still on-going or not. From the foregoing it is suggestive that there is no consensus about whether the creation of Earth is still ongoing. Where do we go from here? Who will solve the riddle? The discussion continues.

Disclaimer: The interest of this academic discourse is to offer possible explanation to the riddle about whether the creation of the Earth is still on-going. This paper or the author is not interested in either the superiority of any religion or intend to hurt, mock or infringe on any individual and/or collective belief. Opinions expressed here in various sections of this paper are the sole responsibility of the cited writers and they may not represent that of either the author or the publisher.

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