

Relationship Between Science And Religion: A Dilemma For Students Learning In Science

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Abstract- This study was carried out to explore the relationship between science and religion and its dilemma for students in learning science, mainly focused on the origin of the Earth and the evolution of life. For this study, a qualitative methodology was chosen. The sample consisted of 25 participants of secondary science students in Kathmandu metropolitan city. The purposive sampling method was used for the gathering of information. Essential tools like interview guidelines, questionnaires, and field notes, were made and used for this study. The interview of participants was recorded and transcribed to the development of the theme. Those data were scanned through the description of themes. It was explored that the controversial concepts of science create a dilemma in science learning, is the debate between biological evolution and god formation. It achieves that the student's understanding of learning natural evolution and the origin of the Earth was complex due to dilemmas between spiritual creation and biological evolution., It is necessary to include the religious background of the change of life with science and technology in the current education system to improve the students' knowledge of biological evolution.

Keywords- Science, Religion, Dilemma, Science Learning, etc.

I. Introduction

Nepal is a multi-lingual, multi-cultural, and multi-religious country, but most of the people here are Hindus. People of all religions agree that our universe was created by God (Puza, 2004). Hindus believe that the entire universe was created from Brahma, Vishnu, and Maheshwar. But science has explained that plants and animals originated from the theory of evolution (Profile, 2019). This kind of dilemma has made it difficult for students to learn the lessons about the origin of the Earth and the evolution of living things at the secondary level. Science is a reliable way to acquire knowledge. According to the theoretical aspect, based on the barbarian first division, many people view science as objective, universal, rational, solid observation, and based on proof. In contrast, religion is based on subjective, generous, emotional, and tradition. Those do not seem to agree with each other (Fitria

& Al Giffari, 2021). The barbarian's second division is called freedom, meaning that religion and science should be separated and remain in their separate domains. Both sides answer different questions about themselves and have different perspectives on life. Science is objective and factual, while religion is based on emotions. Barbers have concluded that if these two territories are separated from each other, there will be no conflict between them. However, if they were completely separated, they would not be able to benefit each other mutually. The third division is the dialogue presented by Barber. This division emphasizes the commonalities and negatives of the conversation between religion and science. Science and religion can broaden and expand their perspectives by focusing on the spiritual side of life. The New Age movements are related to this life perspective. Barber claims that the subject matter is "the power of the mind of matter"

(Barber, p. 97). The last part given by the Barber is called the presentation. It is based on a mixture of spirituality and science. This seems to be related to the field of more direct information. There are three different versions of integration: theology, theology of nature, and systematic synthesis. Similarly, natural theology means that the existence of God can be inferred from the evidence of natural design, where science has made us more conscious (Barber, 2019).

In the theology of nature, the primary source of theology lies outside science, but scientific theories can influence specific theories, especially the theories of creation and human nature. In a systematic synthesis, science contributes to developing both inclusive metaphysics, such as process and philosophy. The arena of science and faith is also called theology. It is the ancient and existing connections between these fields. Theoretically, Darwinism, Hugo, and Neo-Darwinism were given different views about organic evolution. Evolution occurs through natural selection, the best possible survival, and beneficial diversity (Singh, 2016). Similarly, it happens through beneficial and harmful mutations (Barbara & Macpherson, n.d.). In the organic evolution, the living things evolve through discrimination and comparative reproductive success (Strauss, 2010). Similarly, the origin of the Earth depends on various theories like the big bang, heliocentric, geocentric theory, cosmology, and the standard theory of physics. The Big Bang Theory attempts to explain what happened when the universe was first created. Astronomy and physics discoveries have shown beyond a reasonable doubt that our universe did have a start. Before that moment, there was nothing. During and after that moment, however, our universe came into being. The big bang theory attempts to explain what happened at that time and after it. The standard approach says that our universe came into being around 13.7 billion years ago as a "singularity." What is a "singularity," and how did it get its name? We don't know for sure. Singularities are places where the laws of physics don't make sense. "Black holes" are thought to

have them at their center. Black holes are places where the force of gravity is powerful. People believe that the pressure is so intense that finite matter is squished into infinite density, a mathematical concept that blows their minds. "Singularities" are the names for these areas with endless mass. People think that our universe began as a very small, scalding, and very dense something called a "singularity." From where did it come? We have no idea. What made it show up? We have no idea. After it first came into being, it seems to have blown up ("the Big Bang"), grown, and cooled, going from being very, very small and very, very hot to be the size and temperature it is now. It continues to grow and cool to this day, and we are inside of it. We are amazing creatures living on a unique planet that orbits a beautiful star clustered with several hundred billion other stars in a galaxy flying through the cosmos. The expanding universe began with the infinitesimally small singularity. This inside appeared out of nowhere for unknown reasons of the space.

The geocentric theory of the universe says that the Earth is in the middle of the universe, and everything else moves around it. In ancient Greece, a lot of people believed in this system. Both Aristotle and Ptolemy agreed with it, and most Greek philosophers thought that the Sun, Moon, stars, and planets that could be seen circled the Earth. Christianity teaches that God put the Earth in the middle of the universe. Because of this, the Earth was seen as a special place to watch how life works. People used to think that the Earth was the center of the universe because of two everyday observations. The Sun rises in the east and sets in the west every day. They show that the stars, including the Sun and planets, seem to move around the Earth daily. The second is that most people think the Earth is solid and stable and doesn't move but stays still. The geocentric view of the universe is often called the "Middle Ages" view of the universe because it was the primary way people thought until the early modern age. From the end of the 16th century, the heliocentric model of Copernicus, Galileo, and Kepler slowly took its place. But the opposite of this

theory, the Polish astronomer Nicolaus Copernicus came up with the idea of the heliocentric theory. In this theory, the Sun is at the center of the solar system, and all the planets and other celestial bodies move around it. It proved a lot of people's ideas and beliefs at the time were wrong. The heliocentric theory is essential today because it led to better and more accurate physical and mathematical tools for astronomy. It also changed how scientists think about how our solar system was made. Nicolaus Copernicus, who lived from 1473 to 1543, changed how educated people thought about the world when he came up with the heliocentric theory about how the Earth is connected to the Sun. The heliocentric theory, which is now widely accepted, says that Earth and the other planets move around the Sun. Likewise, cosmology studies the prominent picture structure and the universe's history, present, and future. It is a comprehensive science that changes quickly. It is based on modern physics and astronomy and uses many different kinds of math. We won't be able to talk about every part of cosmology. It focused on actual results in a way that students who don't know much about physics and astronomy can understand. The Standard Model of Particle Physics supports cosmology and best explains how the world works at the subatomic level. It is based on the theory of quantum fields and has been tested very carefully. In quantum field theory, each type of particle (matter particles and force particles) has its area.

The Standard Model says quarks and leptons are the most basic types of matter. All of them have a spin-half point-like shape. The thing that makes quarks stand out is that they are charged (or "colored") by a strong force. Because of this, quarks are always found inside hadrons. The second type of matter particle is the lepton. These also have a spin of $-1/2$, but unlike quarks, they don't have strong interactions because they don't have a color charge. Just like quarks, leptons come in three groups. The electron and its partner neutrino ' ν_e ' are part of the lightest generation. The second generation is made up of the muon and the neutrino that goes with it. The electron and the muon are very similar. Both have the same electric charge,

but the muon is about 200 times heavier. Because the muon has a more significant mass than the electron, it moves through electric fields less quickly than the electron and gives off less electromagnetic radiation. Muons are very penetrating because of this. Muons with a lot of energy are made in the upper atmosphere. They can pass through the atmosphere and be seen on the Earth's surface. How many quarks and leptons there are depends on? How much do they charge 'Q'? All of them have a spin of $-1/2$? The antiparticles that match the particles have the same mass but opposite charges. The parity of fermionic particles is positive, while the likeness of their antiparticles is negative.

Everyone is based on the language, religion, culture, and traditions of their society. Therefore, the student's learning in the school is being affected accordingly. It has been heard that there is difficulty in learning due to the conflict between scientific and religious arguments during science class teaching. It also aims to respond to these queries. Are religious views related to science? Do they interfere with guiding scientific investigation and teaching-learning in science? Therefore, it is sought to be studied as a problem.

II. Literature Review

According to Puza (2004), all religions believe God creates that universe. But according to, science (Profile, 2019) indicated that plants and animals have arisen from the concept of evolution. Natural theology states that the presence of God may be deduced from evidence of natural design, where science has made humans more sensible. Natural Theology (2019) reveals the Barbarian division (2019). As a result, science is a systematic and fact-based field. On the other hand, religion is founded on subjective, charitable, emotional, and traditional values. Those don't appear to agree (Fitria & Al Giffari, 2021). Darwinism, Hugenism, and Neo-Darwinism were all given diverse perspectives on organic evolution in theory. Natural selection, the highest potential for survival, and good variety are all factors in evolution (Singh, 2016).

It also happens as a result of both beneficial and treacherous mutations (Barbara & Macpherson, n.d.). Living things evolve through discrimination and relative reproductive success in organic evolution (Strauss, 2010). The student may believe that something is terrible, yet he frequently expresses his future opinions, and in the end, they have no moral differences. These concepts appear to have a sense of uniqueness (Hart-Cole et al., 2015). In terms of growth, man is an artist who arrives on Earth with a vastly developed narrative, although there may be enough framework for his creativity (Mercier, Kramer, & Shariff, 2018). According to Graves (2009), trust in God and scientific facts explain why faith in God is frequently on the side of elimination. Why is a religious belief in God so irrational and unreliable? People, we believe, have learned how to respond to scientifically influenced information.

III. Materials and Methods

In material and methods, we have used the qualitative research methodology. There are different methods of data collection in qualitative research. Observation, literal analysis, visual analysis, and interview methods are commonly used. However, especially in academic research, the most common methods can also be used in interviews and targeted group discussions. We have used interview guidelines methods as mentioned in Nowell, Norris, White, and Moules (2017). To fulfill the aim of the study, we followed the purposive sampling procedure to gather data. Research tools like interview guidelines, questionnaires, and field notes, were used for this study. The interview of participants was recorded and transcribed to develop the theme. Those data were analyzed through the explanation of themes.

IV. Analysis and Interpretation of Data

This study aims to find out the students' belief in God and the fact of science. It also focuses on students' dilemma on the origin of the Earth and the evolution of life at the secondary level of science subject. Thus, the analysis is based on the theme developed from the interview transcribed,

questionnaire, and field note collection. Those types of assuring information were explored in the following heading.

Belief in God and the Facts of Science

The connection between science and religion leads our students to trouble. Why is faith in God often on the side of elimination? Why is a religious belief in God so unreasonable and so uncertain? We think people have learned to respond to facts related to scientific influence (Graves, 2009). For the case at this point, the size of space is very remarkable, we have a tiny particle revolving around the Sun, in the middle of a million objects in this galaxy, and there are a billion small objects. Thus, there is a process of close relationship and biological development for animals with natural companions. Man is an artist who comes to the Earth of a hugely developed drama, but there may be a scaffolding left for his creation (Mercier, Kramer, & Shariff, 2018).

There are atoms, which all seem to be formed by immutable laws. Nothing can escape it. Stars and animals are made of the same material. But in such complexity, people themselves seem to live mysteriously. Thinking about the universe beyond man is a great adventure. Without thinking about what it means, the man was for a significant part of its long history, and its place is in great numbers (Albright et al., 1946). The view of this purpose is finally achieved, and the glory of mystery is appreciated. Then to look at the entity as it is, to see it as the mystery of the most incredible depth, life is a feeling of experience. It is rarely described. It usually ends in happiness, joy, and the uselessness of trying to understand. The quote of Richard P. Feynman argues that these scientific ideas end in fear and mystery, lost on the authority in uncertainty, but they seem so deep and so leading that theory appears to have arranged it all as a stage for God to fight for good and evil. But it is insufficient.

This is the example of a particular student, and the belief rises so that he trusts that personal prayer is not heard. I am not trying to oppose the truth of God; I am trying to give you some idea of understanding of the reasons why many

come to think that prayer is valueless (Knitter, 2010). As a result of this doubt, the pattern of skepticism is turned into ethical complications because he learned about religion. The moral difficulties were associated with the word of God, and if Deity doesn't exist, what is his word? But quite amazingly, I think, the moral difficulties eventually come out relatively safe and sound. The student may adopt a little thing were wrong, but he often converses his opinion future, and finally, they have a no different moral view. There appears to be a kind of individuality in these ideas (Hart-Cole et al., 2015). Finally, it is possible to distrust the divinity of religion and yet to believe resolute that it is a good thing to do our neighbor as we would have him do unto you. It is likely to have both these views at the same time, and I would like approximate that I hope they will find that their unbelieving scientific generations often carry themselves well in society.

Students' Dilemma on Science Learning

Students have a dilemma in learning the lesson about the evolution of living beings and the origin of the Earth. As a student, he told me as follows:

My name is Sanjeev Kumar. I live in Kalimati. My family and I are Hindus. I find it challenging to study the origin of living things in school because science has stated that living things originated from the theory of organic evolution. According to my traditional religious beliefs, all beings have been created by Brahma, so two different ideas of religion and science have brought a dilemma in my science learning (interview recorded, 7 June 2021).

Among the many participants, one indicated that students have a dilemma on the origin of life and Earth at the secondary level of science due to controversial

concepts between science and religion. Similarly, biological evolution is related to genetic modification based on evolutionary changes in the genetic population. But faith develops through internal organs and vital powers according to Darwin's theory. But evolution occurs through natural selection, the best possible existence, and value diversity. According to Hugo, development occurs through both advantageous mutations and harmful mutations. Similarly, Neo-Darwinists believe that the growth of living things is through discriminatory and comparative reproductive success.

On the other hand, religion believes that creatures evolved from the sea. After the origin of Lord Vishnu over the remaining serpent "shesh nag" in the ocean, a lotus flower blooms in his nave from which Lord Brahma originates. The same spirit created the entire universe, including the creatures. So God is the creator of all beings and the universe. Those controversial debates on learning the evolution of animals and the universe unit of science have created a dilemma for the learner.

Among the many participants, Sanjeev gives information about the difficulty of learning the evolution and origin of earth topics in secondary science due to the contradictory relation between science and religion. Another participant told me that:

My name is Binita. I live in Dallu. I am also having difficulty in reading and learning the theory of evolution and the origin of the Earth in secondary-level science subjects. According to my family and religious beliefs, the creatures and the universe were created by God. But in school, the same subject matter is taught with the theory of evolution. My previous knowledge is cultural, familial, and religiously influenced. Therefore, there is a dilemma in learning the theory of evolution and

origin of the Earth in secondary-level science subjects (interview recorded, 7 June 2021).

The above information indicates that the learning structure of learners influences students' religious, cultural, and social beliefs. So the dilemma is created on learning evolution and origin of earth unit of secondary science subject due to contradicting relationship between science and religion.

One of the participants gives information about collaboration to learn the evolution and origin of Earth in secondary science due to the relationship between science and religion. Another participant said:

My name is Bhanu. I live in Kirtipur. I also have a complex in learning and reading evolution and the origin of Earth in science at secondary school. According to my religious beliefs, the beings and the universe were created by God. But in school, this subject matter is taught with the theory of organic evolution. My previous knowledge is culturally, religiously, and socially influenced. Therefore, there is a dilemma in learning about the development and origin of the Earth in science at the secondary level (interview recorded, 7 June 2021).

The above information also indicates that the learning structure of learners biases learners' religious, cultural, and social beliefs. Therefore, the dilemma is created in learning about organic evolution and the origin of Earth science at a secondary level due to contradicting relationship between science and religion.

V. Result and Discussion

Students' belief in God and science facts explore the faith in God on the way of elimination. The religious belief in God is so unreasonable. But our universe consists of billions of particles that revolve around

the single Sun. The human being is a dramatic let comer in this world is still mysterious. Students' religious, social, and cultural beliefs are biased through the evolution of life, and God created the origin of the Earth. But in fact, science indicated that all materials and beings originated from the theory of organic evolution and many theories like heliocentric, big bang theory, plasma cosmology, and the standard model of science. It also reveals that the controversial concepts of secondary science create a dilemma in learning evolutionary biology and the development of the Earth. So it is the debate between biological evolution and god formation. It achieves that the student's understanding of learning natural growth and the Earth's origin was complex.

VI. Conclusion

It was concluded that the conflict relationships between science and religion in the learning concepts of science create a dilemma at the secondary level. Thus, this is the contemporary debate between biological evolution and god creation. It also explores that the student's understanding of learning natural development was complex due to creating a dilemma between spiritual creation and biological evolution in learning. Therefore, religious concepts of organic evolution and the origin of the Earth should be included in the secondary science curriculum.

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- 453
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