

Perceptions of Muslim Students on Compatibility of Creation with Evolution Theory

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Abstract

The goals of this study are to determine how students perceive the theory of evolution, to describe profiles of student acceptance of the theory of evolution, to investigate differences in student acceptance of the theory of evolution, and to identify the factors that have an impact on student acceptance of the theory of evolution. The instrument used in this study is known as the Measure of Acceptance of the Theory of Evolution. The results of this study indicate that people see the theory of evolution as having a negative connotation, and the degree of acceptance of the theory of evolution falls into the category of being low. There are 92 students overall out of a total of 221 responses that fit into this group, making the proportion of students who accept the theory of evolution fall into this category 41.63%. According to the results of the study, there is a significant connection between the identification of misconceptions regarding the theory of evolution and the outcomes of the students' educational experiences.

Keywords: Perception, Evolution, Creation

Introduction

Neo-Darwinism is a common concept that is still used today as a synthesis of Charles Darwin's theory of natural selection and the idea that evolution is nothing more than the result of gene mutations (Liu, 2018). The term "neo" means "new" in Greek, while "darwin" means "darwinist." This phrase, which is still used today, is a common term that is still used today. Moreover, this term is still used today. This hypothesis can explain the beginnings of the variety of life, and it will be backed in the future by the availability of contemporary genetics and other applications in the realm of technology. According to Smith (2016) This is the reason why the notion of Neo-Darwinism is generally accepted, which is the reason that this theory is applied in such a widespread manner.

The term "evolution" may also refer to the process of alteration. The genetic make-up of a population

undergoes subtle changes from one generation to the next, and the end outcome of these changes is an increase in the amount of diversity present within that population (Bhandari et al., 2017). In the field of biology, the theory of evolution is one of the most fundamental concepts, and as such, it should be included into the curriculum of all scientific courses taught in K-12 and higher education institutions. There are many discoveries that have been made about the living world, and the theory of evolution has the ability to explain and relate a considerable number of these findings. At this time, it ought to be abundantly evident that the evolutionary theory is both a central and integrative one in the study of biology.

Our discourse won't be complete if we don't talk about the part that religion plays in the process of evolution; on the other hand, it will be if we do. According Ecklund & Park, (2007) Because 1.91 billion individuals out of the entire population of

the world identify as practicing Muslims, Christianity is the first largest religion in the world. Islam is the second largest religion in the world. Azyumardi (2017) states there is little doubt that Islam has made the single most important contribution to the progress of education and science throughout the course of its history. Cordoba grew to prominence at a time when other towns throughout the world were going through a period of decline, becoming one of the most splendid cities of its day in the process. Because to Cordoba's extraordinary advancements in education, science, and thinking during the height of Islam's power, the city gained a reputation as "The Greatest Center of Learning in Europe." This was due to Cordoba's position as the capital of the Islamic empire. This contributed to Cordoba's rise to prominence during the Golden Age of Islam. During that time period in history, Islam enthusiastically supported a wide range of scientific endeavors. This is evidenced by the development of a large number of schools, mosques, and libraries that were dedicated to these activities.

By the time of the 17th and 18th centuries after the common era, the vast majority of Islamic territories had already been colonized by Europeans (Ayoob, 2004). Europe uses financial investments to interfere in Islamic countries in order to further its own interests, which benefits those interests. Even arguments regarding science and religion became more commonplace in the Muslim world throughout the colonial era and have continued to do so up to the present day, which contributed to the gradual decline of the scientific advancements made by Islamic scientists beginning in the 19th century AD. These arguments have continued to be prevalent in the Muslim world up until the present day. During this time period, a number of famous Muslim thinkers began to acknowledge the extent to which the Islamic world had regressed in terms of the advancement of science and technology (Simonton, 2018). Islamic scholars started making repairs to the relationship between Islam and science as a result of very persistent efforts made with the purpose of reconciling Islamic traditions with secular science. These attempts were made with the intention of finding a happy medium between the two extremes. in order to prevent a

conflict between the beliefs of many religions and the discoveries of various scientific fields.

The good and the bad the opinions that are still widely held and discussed by scientists, academics, religious leaders, and ordinary people are open to a variety of interpretations. The reason for this is because many people believe that evolution is contentious and runs against to one's religious convictions, and that a person's degree of religious devotion is inversely connected with their belief in evolution. When coupled with other philosophies or religions, explanations of evolution almost always have the tendency to be construed in a manner that is contradictory. As a result, the difficulty of the issue comes in the fact that evolution may either reject or accept a person in its course, either in part or in its whole. 10 Both accepting and rejecting the idea of evolution may have an effect on a person's viewpoint towards the theory of evolution.

According to the findings of a number of studies, the theory of evolution, and more specifically Darwin's theory of evolution, which proposes that humans descended from apes or monkeys, is met with opposition when it is discussed in conjunction with religious beliefs. so that kids have a negative attitude toward learning about the idea of evolution. The incorrect understanding of the theory of evolution that takes place throughout the learning process of biology in class at the school level will continue to transfer over to higher levels and create poor student acceptance of the theory of evolution.

It is difficult for students to integrate new information when there is a low acceptance of the theory of evolution among students, and this has a detrimental influence on the number of students who continue to study biology and science at the university level. Geary & Berch (2016); Van Opstal Hugé (2013) stated that Having a constructive outlook on evolution, on the other hand, will assist in the acquisition of knowledge and the completion of the most comprehensive and accurate idea of evolution, both of which are essential to the growth of science and contemporary science.

One of the things that goes into the formation of perceptions is acceptance. When one begins by

examining their own degree of acceptance of the idea of evolution, the next step, which is to investigate students' impressions of the evolutionary theory, will be much simpler. Because of this, researchers have focused a significant amount of their emphasis on the degree to which the theory of evolution is accepted in a number of their earlier investigations. Because having an accurate perception of the theory of evolution will have a positive impact on the learning process as well as the development of science and modern science, it is interesting to find out more about student perceptions of the theory of evolution. This is because having a correct perception of the theory of evolution will have an impact on the problems that have been disclosed.

Methods

In this specific inquiry, the research strategy that was used was a survey method paired with quantitative descriptive analysis. This was done in order to get the most accurate results possible. All of the individuals who took part in this study were students currently enrolled in higher education programs. During the course of this inquiry, a

questionnaire was used in order to collect the information that was required. The study instrument, in the form of a questionnaire, that is being used to assess the Measure of Acceptance of the Theory of Evolution (MATE). The MATE questionnaire is a questionnaire that has been frequently used in several previous studies related to the level of acceptance of the theory of evolution. This is due to the fact that the MATE questionnaire is able to measure the high level of individual diversity that has been described by 25 different research cases. These studies have a connection to the degree to which people believe in the theory of evolution. In addition, there is a concise series of demographic questions aimed to study the similarities and differences in the extent to which students accept the theory of evolution. These questions may be found at the end of the survey. The data from the questionnaire were analyzed with the use of the Scoring Rubric that was provided in the MATE Questionnaire. The findings of the questionnaire were evaluated using a Likert scale.

Results and Discussion

Acceptance of the Concept of Evolution Theory

Table 2. Acceptance of the Concept of Evolution Theory by Category

Evolution Concept	Strongly Agree		Agree		Uncertain		Disagree		Strongly Disagree	
	F	%	F	%	F	%	F	%	F	%
Evolution Process	33	15	101	46	40	18	33	15	14	6.3
Science Validity on Theory	20	9	68	31	60	27	68	31	5	2.3
Human Evolution	18	8.1	92	42	37	17	48	22	26	12
Proof of Evolution	19	8.6	90	41	65	29	41	19	6	2.7
Science Community Perception	14	6.3	110	50	57	26	32	15	8	3.6

Data on 1 Questionnaire Acceptance Frequency
The following is what we get when we take a look at the distribution of replies to question no. 1 using the Measure of Acceptance of the Theory of Evolution (MATE): There were a total of 101

students who participated in the survey, and 45.7% of them said they accept the theory of evolution. This indicates that the frequency of student acceptance is similar with the number of students who participated in the survey. The

acceptance rate for question no. 2 is divided equally between those who agree and those who disagree, bringing the total number of responses to 61 and giving the question a percentage of 30.8%. In response to the third question, 92 respondents (which amounts to a proportion of 41.6%) stated

their approval. In response to the fourth enquiry, acceptance was signaled by 92 of the total respondents, which equates to a proportion of 41.6%. In response to the fifth question, 110 respondents (which amounts to a proportion of 49.9%) stated their approval.

Table 2. Acceptance for the Concept of Evolution Theory

Acceptance Category	Number of Students	Percentage (%)
Very Low	53	23.98
Low	92	41.63
Moderate	64	28.96
Tinggi	11	4.98
Very High	1	0.45
Total	221	100

The data that were gathered in the area of student acceptance of the idea of evolutionary theory demonstrate that student acceptance of the theory of evolution falls into the low group on average, with a percentage of 41.63%. This puts student acceptance of the theory of evolution in the low category. Because of this, the acceptance of the theory of evolution among students falls into the lowest category. As a direct consequence of this, the degree to which students believe the theory of evolution places it in the lowest possible category. The scoring rubric that was used for the Measure of Acceptance of the Theory of Evolution Instrument (MATE) questionnaire is what the classification refers to. The acceptance categories that are included in the table are the outcomes of the score data obtained from the questionnaire that is referred to as the Measure of Acceptance of The Theory of Evolution Instrument (MATE).

In the end, it is the obligation of scientists, scientists, and Muslim intellectuals to continue developing and advancing in their fields. On the one hand, it is their duty to organize and carry out activities in opposition to a school of thought that does not provide a credible methodology and line of reasoning. On the other hand, it is their duty to demonstrate to the scientific community that there is a model of evolution that is compatible with religious beliefs. As a consequence of this, the theory that was chosen and developed is still

founded on the very robust basis of Islamic teachings (or the teachings of any other religion), which is also in accordance with the developments that have been accomplished in science and technology in this century.

To continue along this line of thought, having a thorough grasp of evolution will be beneficial in finding solutions to issues that have an influence on the human existence in a variety of various facets of everyday life. For instance, a researcher in the field of medicine will be one step ahead in the fight against a pathogenic disease if the researcher understands and is able to control the pattern of evolution of the organism that causes the disease. This will allow the researcher to develop new treatments that are more effective against the pathogen. This is due to the fact that the researcher will have the ability to stop the sickness from progressing further. This is because the researcher will be in a better position to properly combat the illness once they have a better understanding of the pattern. Therefore, when used in such a manner, the study of evolution has the potential to enhance the overall quality of one's existence as a human being. This is due to the fact that evolution may provide light on how humans have developed through time (Dobzhansky, 2013; Kyriazis, 2020). It is also possible to reach the conclusion that evolution is one of the most significant aspects of biology, and maybe even the

existence of people in general (Cole, 1954; Simpson, 1953). This is a conclusion that can be reached via the use of logic and reason. This is as a consequence of the fact that evolution is able to give an explanation for even the most intricate and forward-thinking biological notions of the present day, which can be attributed to the fact that evolution has been around for a very long time. Learning about evolution has the effect of considerably broadening a person's perspectives, which enables them to continue expanding and changing as they explore the truth about an ongoing debate or notion by doing study and engaging in deliberate thought. In order for them to mature into fully developed adults who are perpetually capable of expanding their intellectual powers and who are not susceptible to having their intellectual growth slowed down by the passage of time.

According to the findings of current study, there is a significant link between the identification of misconceptions regarding evolutionary theory and the consequences of learning. These findings were shown to be the case in a number of different ways. Because of this, efforts were made to overcome the widespread misconceptions of the theory of evolution by using active learning, and the end result was an increase in the students' capacity to grasp the theory of evolution (Alters & Nelson, 2002).

It used to be common knowledge that only a very small percentage of pupils, namely 64.65% of the overall student population, subscribed to the idea that evolution is a valid scientific theory. However, as a result of getting treatment in the form of active learning, such as Debate, Group Investigation (GI), and Everyone Is a Teacher Here, the average number of pupils who support the theory of evolution has increased. The findings of the regression analysis, which suggest that the identification of misconceptions has a substantial link with the learning outcomes of students to the extent of 37.7%, provide credence to these findings and provide support for their interpretation. The findings of the regression analysis suggest that the identification of misconceptions has a substantial link with the learning outcomes of students.

In the context of the relationship between evolutionary theory and religious faith, the sense of certainty, often referred to as FOC, plays a very significant part. Acceptance of the theory of evolution will increase a person's attention to subconscious intuitive cognition, which is directly related to the brain, and will increase the feeling of knowing or understanding the theory of evolution. Acceptance of the theory of evolution will also increase the feeling of knowing or understanding the theory of evolution. This is due to the fact that the brain has a direct connection to the subconscious and intuitive aspects of cognition (Schore, 2011). The intuitive cognition of an individual and the interrelationships of such cognition are two important factors that have important links with religious traditions. Therefore, when someone understands, he will focus more on general principles that are related to intuitive cognitive processes, quite similarly to someone who is committed to the study of scientific issues or difficulties. The transformation of living things and the development of new forms of renewable energy are only a few examples of this phenomenon, which is shown by the fact that intuitive cognitive processes have an effect on each of these areas.

Conclusion

According to the information that was presented, the subcategory of the acceptance of the theory of evolution by students demonstrates an acceptance level that is on par with that of the low group on average. One of the five distinct ideas that pertain to evolution is the notion that "Scientific Validity of the Theory of Evolution," which is also known as "Human Evolution." And the idea that "Human Evolution" is taking place are the concepts that have the least amount of support compared to the other three ideas that have been presented here.

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References

- [1] Alters, B. J., & Nelson, C. E. (2002). Perspective: Teaching evolution in higher education. *Evolution*, 56(10), 1891-1901. <https://doi.org/10.1111/j.0014-3820.2002.tb00115.x>
- [2] Ayoob, M. (2004). Political Islam: Image and Reality. *World Policy Journal*, 21(3), 1-14. <http://www.jstor.org/stable/40210231>
- [3] Azyumardi, A. (2017). Islamic Education And Reintegration Of Sciences: Improving Islamic Higher Education. *Media Syari'ah: Wahana Kajian Hukum Islam dan Pranata Sosial*, 15(2), 257-264. <http://dx.doi.org/10.22373/jms.v15i2.1780>
- [4] Bhandari, H. R., Bhanu, A. N., Srivastava, K., Singh, M. N., & Shreya, H. A. (2017). Assessment of genetic diversity in crop plants-an overview. *Adv. Plants Agric. Res*, 7(3), 279-286. Doi: 10.15406/apar.2017.07.00255
- [5] Cole, L. C. (1954). The population consequences of life history phenomena. *The Quarterly review of biology*, 29(2), 103-137. <https://doi.org/10.1086/400074>
- [6] Dobzhansky, T. (2013). Nothing in biology makes sense except in the light of evolution. *The american biology teacher*, 75(2), 87-91. <https://doi.org/10.2307/4444260>
- [7] Ecklund, E. H., & Park, J. Z. (2007). Religious diversity and community volunteerism among Asian Americans. *Journal for the Scientific Study of Religion*, 46(2), 233-244. <https://doi.org/10.1111/j.1468-5906.2007.00353.x>
- [8] Geary, D. C., & Berch, D. B. (2016). Evolution and children's cognitive and academic development. In *Evolutionary perspectives on child development and education* (pp. 217-249). Springer, Cham. https://doi.org/10.1007/978-3-319-29986-0_9
- [9] Kyriazis, M. (2020). Ageing throughout history: the evolution of human lifespan. *Journal of molecular evolution*, 88(1), 57-65. <https://doi.org/10.1007/s00239-019-09896-2>
- [10] Liu, Y. (2018). Natural selection and pangenesis: the darwinian synthesis of evolution and genetics. *Advances in Genetics*, 102, 121-142. <https://doi.org/10.1016/bs.adgen.2018.05.010>
- [11] Schore, A. N. (2011). The right brain implicit self lies at the core of psychoanalysis. *Psychoanalytic dialogues*, 21(1), 75-100. <https://doi.org/10.1080/10481885.2011.545329>
- [12] Simonton, D. K. (2018). Intellectual genius in the Islamic Golden Age: Cross-civilization replications, extensions, and modifications. *Psychology of Aesthetics, Creativity, and the Arts*, 12(2), 125. <https://doi.org/10.1037/aca0000110>
- [13] Simpson, G. G. (1953). The major features of evolution. In *The Major Features of Evolution*. Columbia University Press. <https://doi.org/10.7312/simp93764>
- [14] Smith, B. D. (2016). Neo-Darwinism, niche construction theory, and the initial domestication of plants and animals. *Evolutionary ecology*, 30(2), 307-324. <https://doi.org/10.1007/s10682-015-9797-0>
- [15] Van Opstal, M., & Hugé, J. (2013). Knowledge for sustainable development: a worldviews perspective. *Environment, Development and sustainability*, 15(3), 687-709. <https://doi.org/10.1007/s10668-012-9401-5>