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The comparison factors between science and religion based on philosophy science: An exploratory literature study

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Abstract. There is in religion that cannot be answered with the philosophy and science of knowledge but can only be answered by spiritual experience. Religion, philosophy, and science each exist in a separate space but must be integrated into human life. There are three things that become tools for humans to seek the truth, namely philosophy, science, and religion. Even though the purpose of these three aspects is to find the truth, they cannot be categorized as the same thing. This study aimed to identifying the comparison factors between science and religion based on philosophy science. The method used a qualitative approach with exploratory literature study. The results of this study concluded that between science and religion based on philosophy science had a very strong relationship, but there were several factors that differentiate between one another. Although religion and science both design and prepared the future of mankind, religion design was further, abstract, and gave peace of life after death, while science and technology were shorter and more concrete designs to faced life in this world. Science talked about knowledge, while religion defined about belief.

Keywords. Science, Religion, Philosophy Science

Introduction

In the current era of globalization of the industrial revolution 4.0, sooner or later people who live in technological and industrial developments in any part of the world are required to think universally and substantially, but at the same time, they are required to act and behave in accordance with their values. local cultural values are formed due to historical, geographic,

language, religion, and cultural factors that are particular, primordial, and traditional (Sung, 2017). Ogunkola (2013) explained that a mindset that is global, substantial, and universal without paying attention to local cultural values will alienate someone from their environment. Advances in technology and industry will affect the pattern of material physical life, but at the same time change the pattern of human life both personally and socially (Istambul, 2016).

The basic principle in religion is to believe in God, where world life from a religious perspective is not the goal and end of human life (Exline *et al.*, 2014). According to Abdullah (2014), science and philosophy do not provide practical guidance on how to present and relate to God, but science is needed to solve concrete problems faced by humans in everyday life, while philosophy gives one meaning or value to all that is there to underlie it. In the context of religion, Abdullah (2014) also stated that truth is an absolute thing which is an unconditional doctrine based on faith in God. In philosophy, speculative, logical, and rational truth will be obtained which is based on curiosity to obtain answers, while knowledge science will obtain objective, empirical, factual truth which is carried out with various experiments to reach the truth (Kalin, 2010).

Religion tells how humans relate to God, and philosophy provides the concept of God and provides a basis for value for a science (King & Boyatzis, 2015). There is in religion that cannot be answered with the philosophy and science of knowledge but can only be answered by spiritual experience. Religion, philosophy, and science each exist in a separate space but must be integrated into human life. On the other hand, Kalin (2010) explained that the scope of the field of study of philosophy science is as follows: 1.) The role of science in society; 2.) The world pictured by science; 3.) The foundations of science. Meanwhile Kumar (2020) stated that the philosophy of science is part of epistemology which specifically examines the nature of science.

In the form of questions, at the basis of the philosophy of science, it is an identification of factors related to what objects are studied by science (ontology), how to process and how to obtain science (epistemology), and how to utilize science (axiology) (Safavi, 2010). There are three things that become tools for humans to seek the truth, namely philosophy, science, and religion. Even though the purpose of these three aspects is to find the truth, they cannot be categorized as the same thing. In general, philosophy is considered something that is very free because it thinks without limits, while religion puts forward revelation or inspiration from God. Everything that comes from God in the perspective of religion is an irresistible truth, whereas science is a method of finding the truth. This study aims to identify and describe the comparison factors between science and religion based on the philosophy science.

Methods

This study used a qualitative approach with exploratory literature study methods. Exploratory literature study is the process of investigating a problem that has not been studied or thoroughly investigated in the past based on many literatures (Trochim & Donnelly, 2016). Exploratory literature study is one of type of conducted to have a better understanding of the existing problem, but usually doesn't lead to a conclusive result. In exploratory literature study, the process of the research varies according to the finding of new data or insight, some of the collecting data technique and analysis used in this exploratory literature study include: 1.) Observations as parameter; 2.) Collecting literatures as data; 3.) Identification and analysis as technical (Trisliatanto, 2020).

Results and discussion

Conceptual Framework and Identification Factors of Philosophy Science

Khozin & Umiarso (2019) defined that the philosophy science as a discipline that is directed to explain matters related to scientific research procedures, determination of arguments, and metaphysical assumptions to assess the basics of the validity of science for formal logic, and practical methodology. and metaphysics. The scope of the study of philosophy science continues to experience development, this is inseparable from the increasingly intense interaction between philosophy and science (Khozin & Umiarso, 2019). Levine (2010) stated that the scope of the philosophy of science studies is: 1.) Probability; 2.) Induction; 3.) Hypothesis. According to Magee (2012) states that the scope of the study of philosophy of science includes: 1.) Logical patterns exhibited by explanation in the sciences; 2.) Construction of scientific concepts; 3.) Validation of scientific conclusions.

When viewed from the gradation of thinking the truth can be grouped into four gradations of thinking according to Kozin & Umiarso (2019), including: *First*, Ordinary of Truth, is a truth which is common sense or common sense. This truth usually refers to an unorganized and sporadic individual experience so that it tends to be very subjective according to the variety of experiences one experiences. However, a person can consider it as truth if its practical benefits have been felt for the individual's life. *Second*, Science of Truth, is a positive truth because it refers to empirical facts, and allows everyone to test it with certain methods with the same or at least relatively the same results.

Third, Philosophy of Truth, where the truth of this model is speculative, considering that it is difficult/impossible to prove empirically, but if the method of thinking is understood then someone will admit the truth. One difficult thing is how anyone can believe it, because the way of thinking in philosophy is very varied. *Fourth*, Religion of Truth, which is truth based on information that comes from God through his messenger, this truth is dogmatic, meaning that when there is no understanding of anything related to religion, that person still has to believe it as truth. In the context of the philosophy of science, truth also gets serious attention, this discussion of issues is related to the validity of knowledge or related science, whether someone's knowledge is true or valid or not.

Kumar (2020) proposed various theories of truth, which can be categorized into several types, namely: 1.) The Correspondence Theory of Truth. According to this theory, the truth or everything that is said is true if there is an agreement between a statement and the facts; 2.) The Coherence Theory of Truth. According to this theory, truth is the consistency between a statement and another statement that has been recognized as true, so that a proposition is true if it is consistent or consistent or coherent with other true propositions; 3.) The Pragmatic Theory of Truth. According to this theory, truth is something that can apply, or can provide satisfaction, in other words a statement or proposition is said to be true if it can provide practical benefits for life, something is true if it is useful.

Conceptualization Forms and Structures of Science

Science is a series of concepts and conceptual frameworks that are interrelated and have developed as a result of experiments and observations and are useful for further experiments and observations (Acar, 2014). Grooms, Enderle, & Sampson (2015) described that attempts to uncover the reality of science by using these two formulations use ratio and empirical or synthesize both as a measure of scientific truth. Yiğit, Seda, & Doğan (2014) identified three stages of science liberation, among others: 1.) Science must be separated from the theological environment which is mystical; 2.) Science must be free from abstract metaphysical environment; 3.) Science must find its autonomy in a positivistic environment.

Science is defined as a series of activities to think and understand by following systematic procedures methods and fulfilling the steps (Yanuschik, Elena, & Khongorzul, 2015). Broadly speaking, knowledge science is divided into two forms, namely exact science and non-exact science. Exact science is a scientific specification that focuses on the law of causality (cause-effect) where the assessment of exact sciences tends to use the observation method used as a method of research and measures the level of validity (Ray, 2015). Meanwhile, non-exact science is a scientific specification that discusses the human side (social-humanities) (Tsai, 2018).

According to Hsu *et al.* (2015), branches or forms of science develop from the main branch, namely the philosophy of nature which is later affiliated in the natural sciences and moral philosophy which then develops into a branch of social sciences. Of the two branches, scientific classification becomes increasingly infinite. Estimatively, there are around 650 scientific branches that are still not widely known (Henderson *et al.*, 2018). The speed of advancement in the development of science is so fast that it does not rule out the possibility for the next few decades where scientific classifications can reach thousands of numbers and continue to multiply.

There are so many branches of science, starting with natural science which divides itself into two groups, namely physical sciences and biological sciences. This natural science aims to study the substances that make up the universe (Grooms, Enderle & Sampson, 2015). Ain *et al.* (2018) identified that this science then forms more specific scientific clusters, for example as a physics science that studies mass and energy, chemical science which discusses the substance of matter, science astronomy which tries to understand the condition of celestial bodies and other sciences, then from this scientific clump then forms new branches, such as in physics there are mechanics, hydrodynamics, sound, and so on, which form many small branches.

According to Acar (2014) stated that the scientific structure of science includes several elements, among others: *First*, types of targets which every science has objects of two kinds, namely material objects and formal objects. Material objects are phenomena in this world that are the subject of scientific studies, while formal objects are the center of attention of scientists in studying material objects. The material object of a science can and may be the same as other material science objects, but the formal objects will not be the same. If the objects are the same form, they are the same science but are given different terms. *Second*, there are various kinds of phenomena studied by science. From these various phenomena, 6 kinds of phenomena have been identified which are the objects of material science, namely: 1.) Abstract ideas; 2.) Physical objects; 3.) Living bodies; 4.) Spiritual symptoms; 5.) Social events; 6.) Sign process.

Third, the main characteristics of science. Science is knowledge that has certain characteristics so that it can be distinguished from other knowledge. The main characteristics of science are as follows: 1.) Systematization (scientific knowledge is structured as a system in which some statements are functionally related); 2.) Generality (scientific quality of science to summarize various phenomena that are always expanding by determining the most common concepts in the discussion); 3.) Rationality (sourced from rational thinking that obeys logic rules); 4.) Objectivity (objectivity in studying a scientific truth without involving emotional elements and preferences or personal interests); 5.) Verifiability (can be checked for accuracy, re-examined, or re-tested by the science community); 6.) Communality (science is knowledge that belongs to the public and becomes the treasure of the scientific world and will not be kept or hidden for the benefit of certain individuals or groups).

Perspective, Function, and Importance of Religion

Religion provides instructions on how to establish a relationship between humans and humans, humans and nature, humans and God (Azram, 2011). Another definition of religion is religion as a set of ceremonies that are rationalized through myths and mobilizing supernatural forces to achieve or avoid changes in circumstances in humans or the universe (Davis & Kiang, 2016). It is different according to the explanation from King & Boyatzis (2015) that religion as a belief system has two meanings, namely: 1.) Trust as an institution (faith which is the most basic part of religion itself, which is positioned as the highest form of belief whose truth is recognized); 2.) Belief as an attitude of the soul (believing and accepting something as true, namely listening and obedience, and obeying God's words wholeheartedly, concentrating all self-dedication, surrendering the soul, living and dying for God.

According to Chan, Tsai, & Fuligni (2014), religion contains several elements, namely: 1.) The element of belief; 2.) The element of emotion; 3.) Social elements; 4.) An essential and absolute element. The existence of religion is not only as a belief system that requires truth, but also as a practical action against the application of a belief that has been recognized as true (Abdullah, 2014). In terms of two aspects of function, namely the theoretical function and the practical function as described by Davis & Kiang (2016) as follows: 1.) The theoretical function serves to direct the human soul to eternal happiness by teaching the basic teachings of faith in the existence of God, the reality of revelation, and prophecy and life after death; 2.) The practical function of teaching the practical aspects of religion as a ritual action to be performed by a believer.

In contrast to the explanation from Exline *et al.* (2014) that religion have two functions, including: 1.) Psychological Function. Religion can reduce human anxiety by providing information about things that are not known and do not understand in everyday life, so that it is easier to understand; 2.) Social Function. Religion has sanctions for all the various human behavior. Religion also instills an understanding of good and evil by providing a kind of guideline for living and interacting behavior.

The Comparison Factors Between Science and Religion Based on Philosophy Science

Religion and science have comparison factors based on science philosophy. Religion prioritizes morality and maintains an established tradition (ritual), tends to be exclusive and subjective, while science is always looking for new things, not too tied to ethics, progressive, inclusive and objective (Acar, 2014). The difference factors between science and religion are also explained by Davis & Kiang (2016) as follows: 1.) Religion design is further and abstract, whereas science and technology design are shorter and more concrete; 2.) The field of religion study is metaphysical, but the field of science is an empirical one. The source of religion is from God, while science comes from the natural surroundings; 3.) Functionally, religion serves as a guide for mankind to live calmly and happily in the world and the hereafter, while science serves as a means of facilitating human activities in the world; 4.) The paradigm of religion tends to prioritize morality and maintain an established, exclusive and subjective tradition, while paradigm science tends to prioritize epistemology, metaphysics, theology, and psychology, each of which has an important role in developing human intellect to formulate various conceptual relationships of religion and science. Knowledge; 5.) In science, humans try to find the meaning of experience outwardly, whereas in religion it emphasizes spiritual experiences so as to foster deep religious awareness and understanding.

Conclusion and recommendation

The results of this study conclude that between science and the philosophy-based religion of science have a very close relationship, but there are several factors that compared one another. Although religion and science both design and prepare the future of mankind, religion design is further and abstract and gives peace of life after death, whereas science design is shorter and more concrete to face life in this world. Science talks about knowledge, while religion is about belief. So it is necessary to know that knowledge and belief are two different attitudes, the essence of science lies in the human brain, while the essence of religion lies in the heart. This is based on the goal, namely seeking the truth.

However, the comparison factors are horizontally related to each other, but vertically, only religion has them. Religion, apart from having a horizontal relationship with philosophy and science, also has a vertical relationship with God as human worship. This means that both religion and science complement each other and help people in their respective fields in their own way. The function of religion and science can be related to the relationship between the eye and the microscope. Microscopes have helped our eyes' limited sense, so they can see bacteria that are too small to be seen by the eye directly.

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