

## The West and Islamic Perspective Science Ontology

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### Abstrak

Salah satu cabang filsafat adalah ontologi. Ontologi adalah disiplin ilmu filsafat yang mencoba meneliti dan mengabstraksikan hakikat realitas paripurna yang satu, mutlak, dan abadi. Kajian ini mempertimbangkan ada atau tidaknya sesuatu yang konkrit. Ontologi adalah studi tentang realitas atau identitas dalam keadaan sekarang. Diskusi ontologi berarti memperdebatkan realitas suatu fakta. Ontologi memerlukan suatu mekanisme melalui mana realitas itu dapat diterima sebagai kebenaran untuk memperoleh kebenaran itu. Akibatnya, proses tersebut memerlukan pola dasar pemikiran, yang didasarkan pada bagaimana sains digunakan sebagai landasan untuk membahas realitas. Dalam perspektif Islam, mempelajari kosmos tidak hanya melihat alam dari sudut pandang material, tetapi juga melihat sisi spiritual dari segala sesuatu, sehingga alam semesta tidak dilihat secara terpisah.

**Kata kunci:** *Islam, Ontologi, Sains, Barat.*

### Abstract

One of the branches of philosophy is ontology. Ontology is a discipline of philosophy that tries to research and abstract the nature of the one, absolute, and eternal plenary reality. The study considers whether or not something concrete exists. Ontology is the study of reality or identity in its present state. Ontology discussion entails debating the reality of a fact. Ontology necessitates a mechanism through which that reality can be accepted as true in order to obtain that truth. As a result, the process necessitates a basic pattern of thought, which is founded on how science is employed as a foundation for discussing reality. In an Islamic perspective, studying the cosmos entails not just looking at nature from a material standpoint, but also looking at the spiritual side of things, so that the universe is not looked at in isolation.

**Keywords :** *Islam, Ontology, Science, West.*

### INTRODUCTION

Ontology is the study of what exists but is not limited to a single embodiment (Sabil, 2014:142-159). Meanwhile, the ontological aspect of science raises questions about the objects studied by science. On a philosophical level, science limits its scientific research to subjects that are limited to objects that make sense and are within the scope of human experience. Ontology is a philosophical discipline that explores the nature of universal thought. The purpose of ontology is to discover the essence of every reality. Philosophers explain all reality in its manifestations, in its formulations.

Subject (*human*) to objects (both actual and supernatural) or facts is known as knowledge. Science is a precise body of knowledge organized with systems and procedures to achieve generally accepted goals that can be tested and confirmed (Adi & Widodo, 2018:55-72). Science is not one, but many (plural) approaches to problem solving that are prone to criticism.

Thus, the Islamic scientific paradigm is integral-holistic, that is, it does not maintain a strict dichotomy between the material and spiritual realms, the profane and sacred dimensions, or the elements of earth and sky, but rather connects everything under

monotheism principle. In an integral-holistic perspective, it is actually contained in the Qur'anic paradigm (Al-Ghazali, 1997). When the Qur'an discusses the universe in all its forms, it never separates it from its Creator (Maragustam, 2015:122-144).

Thus, the object of philosophical study of science in the context of Islam cannot be separated from its axiology, which must have practical implications for the growth, welfare, safety, and happiness of mankind in the present and the future (Salam, 2020:1-11). As a result, the importance of western philosophy of science and Islamic point of view will be examined in the discussion of this paper.

## **METHOD**

This study uses a qualitative approach to the method of library research (library research). The focus of the discussion in this research is the West and Islamic perspective on science ontology. Reading materials sourced from scientific references, including articles, books, proceedings, and final assignments (thesis, theses, or dissertations) that are relevant to the focus of the discussion, are used as research data (Assingkily, 2021). Finally, the data was declared valid (valid) after the validity test through library analysis techniques (scientific literature).

## **RESULTS AND DISCUSSION**

### **Definition of Science Ontology**

Ontology in this cosmos, which includes, nature (*kosmos*), man (*anthropos*), and God (*Theos*), there are questions about what exists or about reality (reality), the existence of natural philosophy (*cosmology*), human philosophy (*philosophical anthropology*), and the philosophy of divinity (*theology*) (Malli, 2019:86-99). Ontology is also called metaphysical philosophy because what is in question includes non-physical reality or outside the physical world (*beyond the physical*), in terms of the supernatural.

Ontology gives substance to the concept of disclosure of knowledge in the knowledge base by providing an explicit explanation. Ontology is a theory about the meaning of an object, its properties, and the relationship these things might have to an object. It can also be thought of as a hierarchical structure of terminology to represent domains that can be used as the basis for a knowledge base (Zaman, 2021:79-101).

In his book *Islamic Philosophy The Thematic Approach*, Al-Jauharie (2010) defines ontology as "issues relating to the existence or existence of something to the aspect of essence, the true reality of something". In other words, an ontology is a method for determining what exists (*what*).

Meanwhile, ontology, According to Introduction to Science in Context by Jujun S. Suariasumantri, is the study of the theory of existence that analyzes how much we want to know and what we want to know? (Baktiar, 2011). It can be said that the study of the nature and structure of science is known as scientific ontology. Where is the purpose of knowledge to explain and answer questions "What is knowledge?" in this part of the structure of science is to explain the various fields of science.

### **Aspects of Science Ontology**

The ontology of science is concerned with what exists but is not limited by any particular embodiment. The ontological aspect of science raises problems about the objects explored by science. At the metaphysical level, science limits scientific inquiry to areas within the sphere of experience human and on things that are consistent with sense man. Ontology is a branch of philosophy that studies what is universal and presents universal universal concepts. The purpose of ontology is to discover the essence of every reality. According to Lorens Bagus, ontology is a description of what which there is, which includes whole reality in all its manifestations. In science, there are a number of ontological issues that need to be studied (science). These ontological aspects are:

1. Systematic. Using the scientific method means finding and processing information using certain methods, not haphazardly.

2. Methodical. In an effort to find truth and decipher knowledge that obtained through the use of certain methods with regularly to become a unified whole, related to each other regularly in a unity, meaning in an effort to find the truth and decipher knowledge is obtained through the use of certain methods that are regular and directed so that become a unified whole.
3. Consistent. The elements must be connected and the descriptions must not conflict. This shows that every aspect of the description of science is composed of a sequence of interconnected and consistent elements.
4. Appropriateness. It must be based on the principles of reasonable (logical) reasoning.
5. All-encompassing. Seeing objects in three dimensions or as a whole, not only from one side/point of view (holistic).
6. Revolutionary.
7. Drawn to the core or source of the situation.
8. General. Content of truth on a broad level that applies to everyone.

### **Western Perspective Science Ontology**

The majority of scientists continue to believe that the ontological object of science is an autonomous cosmos that has nothing to do with anything (especially spiritual) outside of universal phenomena, according to the paradigm of Western philosophy of science. The universe which is empirical and can be observed with the senses is the ontological object of science. According to the view of Western philosophy of science, that most scientists still believe that the object of ontological research is an independent cosmos that has nothing to do with anything (especially spiritual) outside universal phenomena. Part of the ontological object of science is the creation of the universe, which is empirical and can be observed with the senses (Hasanah, 2017).

Thales was the first to express a point of view that was opposite to the viewpoint of the masses at that time. This is where the significance of character lies. Among him, everyone thought everything was normal at that time. When they found wood, iron, water, and other materials, they considered them to be substances (which they were composed of separately). In other words, most people don't maintain a balance between appearance and reality.

Several questions arise when researching ontology, which later gave rise to philosophical schools. Each question raises various ontological points of view. "What is it?" is a query. "How is that creature?" (What's going on?) (How are you?) and "Where are you?" (What does it mean to be?). What exactly is there? (What does it mean to be?) To provide a solution to this dilemma, five ideologies emerged, which are as follows:

#### 1. Monoism

In this school of view, there is only one belief and there cannot be two. Whether the origin is material or spiritual, there must be only one essence as the originating source. It is difficult for any essence to be independent and free. One of them must be the main source, and the development of the other is determined by the dominant. Plato, a philosopher, belongs to this school because he says that the world of ideas is the real world. The Block Universe is a concept created by Thomas Davidson to describe monism. The following understanding is broken down into two streams:

- a. Materialism is a term that refers to the belief in the existence of this sect believing that its original source was physical rather than spiritual. Naturalism is another term for this school. Inanimate objects, he claims, are reality and the only fact. Thales, the father of philosophy, was the founder of this school of thought (624-546 BC). Because of its relevance to life, he claimed that water was the first element. Anaximander (585-528 BC) said that air is the first element and source of all life. Democritus claimed the nature of this cosmos to be composed of many atoms, innumerable, and subtle. Natural phenomena are initiated by these atoms.
- b. The term "idealism" comes from the word "idea" which refers to something that is in the heart. Idealism assumes that there must be something hidden behind physical reality.

There's something really behind the physique to this flow. He is in the physical mind, which to this school is only a shadow, and his nature is fleeting. The existence of physical objects will be tainted to the ultimate truth. This school can be traced back to Plato's discourses (428-348 BC) 12 and his theories of concepts. Everything that is there, according to him, must have an idea, that is, a universal concept of everything. The physical world of this room is only a reflection of that realm of thought.

## 2. Dualism

Claims that objects consist of two types of nature, namely the material realm and the spiritual realm, matter and spirit, body and spirit. In this world, you have created life. Descartes (1596-1650 AD), the father of modern philosophy, is the person who represents this understanding. The world of consciousness (spiritual) and the world of space are the names for the two essences (matter). *Meditations de Prima Philosophia* (1637) and *Methode* (1637) (1641). He also describes the famous *Cogito Descartes* (Descartes/Cartesian Doubt doubt technique) in this book. There are also Benedict de Spinoza (1632-1677 AD) and Gtifried Wilhelm von Leibniz, besides Descartes (1646-1716 AD) (Nurbayani, 2017).

## 3. Pluralism

Believing that all kinds of reality exist. Pluralism begins with the whole and recognizes that all forms are real. Pluralism, according to the Dictionary of Philosophy and Religion, is the idea that claims that natural reality consists of many aspects, not just one or two.

Anaxagoras and Empedocles were the founders of this school in Ancient Greece, which claimed that matter is currently produced and that there are 4 elements: earth, water, fire and air. William James (1842-1910 AD), a prominent representative in this school, argued that there are no absolute truths that are universally recognized, permanent, and independent of the knowing mind.

## 4. Nihilism

Derived from the Latin word nihil, meaning "nothing". One theory denies any positive progress properly. Ivan Turgenev coined the term "nihilism" in Russia in 1862. According to Gorgias (48,5360 BC), who made three statements about reality, nihilism has existed since ancient Greece. First of all, nothing exists. Second, it is impossible to know if something exists. To begin with, nothing exists. Second, something cannot be known if it exists. Third, even though we are aware of the truth, we cannot communicate it to others. Friedrich Nietzsche is another representative of this school. According to him, the world is available for the creativity and freedom of beings. sight is no longer interested in the world behind or above the world in which it is located.

## 5. Stream Agnosticism

An understanding that denies the human capacity to understand the nature of things. Nature, both physical and spiritual. Agnosticism comes from the Greek term *Agnostos*, which means "unknown". It means "no" and "know". This flow arises as a result of the inability of society to recognize and describe concretely the existence of a reality that stands alone and can be recognized by us (Firdaus, 2019).

What's with that? (*How is being?*) Don't something that there are permanent, eternal, or change? Zeno (490-430 BC) claims that something is only fiction in this scenario. Bergson and Russell disagree with this point of view. Nature, according to Whitehead, is a dynamic, constantly moving, and skeleton events flow basis creatively. This flow argues that what exists is supernatural, universal, eternal, and abstract, and exists in the realm of ideas. Materialism, on the other hand, holds that what exists is physical, natural, unique, changing, and real.

## Islamic Perspective Science Ontology

Ontology, in simple terms, is a philosophical discipline that describes the nature of the existence of things. Ontology is the study of the basic structure of an existence or entity. What is the nature of existence or existence, which is related to ontology? Within the

framework of science, the cosmos with all its devices is a dimension of the ontology of science.

According to Mehdi Golshani, there are more than 750 passages in the Qur'an that deal with cosmic events. Meanwhile, according to Agus Purwanto's observations, there are around 1108 (one thousand one hundred and eight) verses in the Qur'an that discuss the universe in all its dimensions (Mehdi Golshani, 1989) Allah commands humans to conduct scientific research on the diversity of universe phenomena both inside and outside the planet in many verses.

If the earth represents all the realities of life on earth, such as humans, animals, plants, and all accompanying phenomena, then the sky (*samawat*) represents all phenomena that exist outside the earth (sky), such as the sun, moon, stars, and all the other planets that accompany them. With this command, people will be able to study and understand the hidden laws of life on Earth and throughout the universe.

Because Allah cannot command servants to study the universe if we, as His servants, are not able to unravel its mysteries scientifically. However, acknowledging that the universe is a collection of instructions (verses) from the Creator is one of the most important components in analyzing the universe and its contents from an Islamic perspective. In the Qur'an, the cosmos functions as a sign and metaphor for the beliefs that underpin it, rather than stand alone.

Saputra & Muslim (2021) is of the view that classical Muslim philosophers understood the universe as a symbol based on these Qur'anic concepts. Symbol, according to the traditional Islamic paradigm, is a "reflection" on a lower level of existence, of a reality derived from an ontological position. better. The spiritual realm is a higher dimension which is symbolized by the symbols of nature. The sun, for example, represents the Divine Mind; the vast space represents Divine Possibility and Divine Eternity; a bird symbolizes the soul; the tree represents the degree of form; and water symbolizes knowledge and rain represents revelation. There are many such examples that could be given.

There is an inherent relationship between the symbol and the represented, according to Saputra & Muslim. This is a philosophical relationship, not a physical one. The deeper meaning of a symbol or relationship cannot be found through logical or mathematical analysis or empirical examination. This understanding is based on the science of metaphysics known as the study of symbolism. To investigate the relationship between science and spiritual understanding, symbolism is essential.

Natural objects are not seen as mere facts in symbolism, as is the case in modern science. Mathematical and empirical investigations have identified natural objects or events as symbols. This shows that mere quantitative and scientific information cannot resolve the reality of natural entities. The symbolic knowledge of natural objects is not only feasible, but also as real as scientific or mathematical information. Muslim scientists had shown in previous centuries that symbolic and scientific knowledge of nature were not mutually exclusive.

Indeed, a symbolic understanding of nature aids in the discovery of the metaphysical or metaphysical meaning of scientific facts, ideas, and laws established through empirical investigation of the universe. In many cases, it is symbolic knowledge that motivates Muslim scientists to pursue new areas of research, resulting in groundbreaking discoveries in the region. Suhrawadi's 12th-century metaphysics of light and cosmology based on the symbolism of light, for example, helped develop the main scientific activity in optics in 13th-century Islam. In this regard, Qutbuddin al-Shirazi and his student Kamaluddin al-Farsi made significant contributions (Nakosteen, 2003).

The paradigm of Islamic philosophy is different from the paradigm of Western philosophy ontologically. According to the paradigm of Western philosophy of science, most scientists still believe that the object of ontological research is an independent cosmos that has nothing to do with anything (especially spiritual) outside universal phenomena. The ontological object of science is the empirical universe that can be observed with the senses.

Islamic philosophers such as al-Kindi, al-Farabi, Ibn Sina, Al-Shirazi, Al-Ghazali, Ibn Taimiyyah, and Ibn Khaldun made a separate categorization and hierarchy of knowledge based on the sources of the Qur'an and Hadith, mainly determining which information is the most important. or the main, and which is the main and which is not the main (Endraswara, 2017).

1. Al-Kindi (796-873 AD)

Science is divided into two groups, according to Ariatoteles classification: theoretical sciences and practical sciences; (1) Physics (moral science), Mathematics (riyadiah science), and Metaphysics are examples of theoretical science (nazariah science) (divine science); and (2) Akhlaqiyah (ethics), iqtisaduyah (economics), and politics (politics) are examples of practical science (amaliyah science) (siasiyah).

2. Ibn Sina (980-1036 AD)

Also divides science in the same way that Aristotle did: (1) Theoretical Sciences: physics, mathematics, metaphysics, and universal sciences are examples of theoretical sciences; and (2) Practical knowledge in the fields of ethics, economics, politics, and sharia.

3. Al-Farabi (878-950 AD)

Sort science into the following categories: (1) Logic (ilm al-lisan); (2) Language Studies (ilm al-mantiq); (3) Ulum al-ta'lim (mathematics); (4) *Al-ilm al-tabi'i* (Physics); (5) Theoretical Physics (al-ilm al-ilahi); (6) Applied Social Sciences (ilm al-madani). Islamic knowledge based on revelation is clearly placed at the top of this classification. It falls under the intellectual sciences. In the Islamic perspective, the concept of categorization and hierarchical knowledge is a manifestation of Islamic teachings regarding verses or instructions of the majesty of Allah which are classified into two categories, namely Quranic verses and Kauniyah verses. Ulum Qur'an and other related scientific disciplines (such as Qur'anic science, hadith science, aqidah, sharia, morals, and so on) are verses of the Qur'aniyah which are the words of Allah (Word of Allah). The Kauniyah verse is about Allah's creation which are signs of His majesty, which can be studied in the world of creed, which includes natural sciences such as physics, biology, chemistry, geology, sociology, botany, and others.

## SIMPULAN

Based on the previous argument, the author can conclude that the paradigm of Islamic philosophy is ontologically different from the paradigm of external philosophy. Researchers believe that the goal of the ontology of science is an autonomous cosmos that is unrelated outside of universal phenomena, according to the paradigm of Western philosophy of science. Empirical science that can be observed by the senses is the ontological object of science. While the ontological paradigm of Islamic science is based on Muslim philosophers, the Qur'an and hadith are sources to address this issue because they are not only based on the five senses and observations, but also in seeking and finding these events. supernatural things that come from the revelation of Allah swt.

To conclude this paper, we must face two realities. On the one hand, we can observe how far the West has progressed in the various departments of extraordinary science and technology, but on the other hand, this material success has not satisfied Westerners. Under these conditions, it is the responsibility of Muslims to fill the gaps in knowledge they can do so through knowledge and technology, reviving Islamic values and noble concepts to bring humanity to true prosperity and happiness.

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