

## ONTOLOGY OF SCIENCE INTRODUCTION

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**Abstract:** Science also studies various symptoms and events which basically have benefits for human life. The method used in this research is a qualitative descriptive method. Descriptive research is research that aims to describe the position of reason in Islam. The discussion in ontology starts from all aspects of life that can be tested through the human senses, and then dialogues about the basis of existing insight, scientific ways of thinking, and the characteristics of science. The application of ontology in ontological Islamic Learning Management seeks to ensure and observe that insightful knowledge can truly be proven to exist.

**Keywords:** Ontology and Knowledge

## INTRODUCTION

Etymologically the word Philosophy comes from the Greek philosophia from the words "*philos*" meaning love or "*philia*" (friendship, attraction to) and "*sophos*" which means wisdom, knowledge, skills, experience. practical, intelligence. Philosophy of Science is an important

foundation in the development of science. The development of the era accompanied by the development of information technology has resulted in an increasing number of specializations in science . Humans as actors in this development need to realize the importance of philosophy to provide realistic and logical limits for developing science so as not to harm humans, nature and the environment .<sup>1</sup>

In the world of education related to learning and learning, the philosophy of science is a series of approaches to ways of thinking that guide the direction of development in the world of education. Problems that occur in learning, both regarding planning, implementation and evaluation, cannot be separated from the philosophical foundations related to educational philosophy. Learning, which is an important part of supporting progress in the world of education, often faces obstacles in its implementation, such as student activities and learning achievements that are not yet optimal.

The ontology of science covers all aspects of life that can be tested through the human senses. Science studies empirical objects such as rocks, animals, plants, animals and humans. Science also studies various symptoms and events which basically have benefits for human life. When viewed from the objects that have been studied, science can be called empirical knowledge where objects that are beyond the reach of humans are not included in the field of scientific study.<sup>2</sup>

## **METODE PENELITIAN**

The method used in this research is a qualitative descriptive method. Descriptive research is research that aims to describe the position

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<sup>1</sup> Dewi Rokhmah ." Science in Philosophical Review: Ontology, Epistemology, and Axiology " *Journal of Islamic Studies* , Volume 7, Number 2, December 2021, 8-10.

<sup>2</sup> I Gusti Bagus Rai Utama . Philosophy of Science and Logic of Management and Tourism Yogyakarta: Deepublish, 2021), 7-10.

of reason in Islam. Meanwhile, the sources were taken from several scientific books and journals which were used as reference sources. The data collection technique in this research is literature study.

## DISCUSSION

### A. Ontology Point Of View

The study of ontology is associated with objects of knowledge in the Islamic view, divided into two, namely: First, objects of knowledge that are material in nature, meaning objects of knowledge that can be heard, seen and felt. For example, science, exact science, political science, social science, culture, psychology, and so on. Second, the objects of knowledge are non-material. In contrast to material objects, non-material objects cannot be heard, seen or felt. The end result of these non-material objects is more of a spiritual satisfaction. For example, objects that talk about the spirit, nature and form of God.<sup>3</sup>

The ontology of science covers all aspects of life that can be tested through the human senses. Science studies empirical objects such as rocks, animals, plants, animals and humans. Science also studies various symptoms and events which basically have benefits for human life. When viewed from the objects that have been studied, science can be called empirical knowledge where objects that are beyond the reach of humans are not included in the field of scientific study.<sup>4</sup>

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<sup>3</sup> Made Dharma Atmaja P . "Philosophy of Science as a Characteristic for the Development of Mathematics Learning Media" *Santiaji Education Journal*, Volume 10, Number 1, January 2020.

<sup>4</sup> Unwakoly, S. *Journal Philosophy Indonesia. Think Critical in Philosophy Knowledge: Study in Ontology, Epistemology, And Axiology*. Bandung. Vol 5 No 2, 2022.

Initially, the argument about ontology was initiated by Plato with his theory called the theory of ideas. According to him, everything in this universe must have an idea. What Plato means by idea is a universal understanding or concept of every thing. So this idea is the essence of something and is the basis of the form of that something. The idea is behind what is real and the idea is what he thinks is eternal. Therefore, this explains why the objects we see or are perceived by the five senses always change. Thus, it is not the essence, but only a shadow of its ideas. In other words, objects that can be perceived by human senses are just imagination and illusion.<sup>5</sup>

Furthermore, the ontological argument was also presented by St. Augustine. Augustine explained that humans know from experience that there is truth in the universe. However, sometimes humans feel that what they know is true, sometimes humans also doubt that what they know is the truth. According to Augustine, human reason basically knows that there is still a fixed truth which is a source for human reason in its efforts to know what is true. The fixed truth is the absolute truth. Where is this absolute truth which according to Augustine is called God.<sup>6</sup>

Ontology when looking at the nature of a reality or the essence of something that exists through two kinds of points of view, namely: First, quantitative, namely by asking whether reality is singular or plural. Second, qualitative, namely by asking whether reality has certain qualities. Simply put, ontology can be formulated as science

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<sup>5</sup> Ahmad Irfan . "A Basic Assumption of Science as a Research Base for Islamic Education " *Journal Scientific Forum* , Volume 15 Number 2, May 2018

<sup>6</sup> Mahfud. " Knowing Ontology, Epistemology, Axiology in Islamic Education , " : *Journal of Islamic Studies*, Vol. 4, No. 1, 2018, 84.

that studies reality or concrete facts critically . The ontological view of special insight science should be explained, among other things, by:<sup>7</sup>

1. Logical; use method objective;
2. Analytical; reparation relate with method orderly in something totality;
3. Coherent; element- the elements No Can own explanation Which opposite;
4. Logical; must reasoned on rule assume Which right (enter sense);
5. Comprehensive; looking at the subject not just from one part or edge of vision, but in a multidimensional way or in a total (holistic) way.

## **B. Ontological Way Of Thinking In Science**

Science assumes in ontology that the empirical objects that are the field of study have the nature of diversity, show repetitive properties and are all intertwined in an orderly manner. That the rain that falls begins with thick clouds and overcast skies, this is not a coincidence, but this is the pattern. This incident will repeat itself with the same pattern. Nature is an orderly system that is subject to certain laws.<sup>8</sup>

Science in ontology, which functions to help humans in solving practical, everyday problems, does not need to have absolutes like religion, which functions to provide guidance on the most essential things of life. However, up to a certain stage, science needs to have validity in making generalizations, because knowledge that is personal and individual, like artistic endeavors, is not practical. So between the

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<sup>7</sup> Adib, m. Philosophy Knowledge Ontology, Epistemology, axiology, And Logic Knowledge Yogyakarta Knowledge: Student Library. 2011.

<sup>8</sup> Novi Khomsatun . " Islamic Education in Review of Ontology, Epistemology and Axiology " : *Journal of Children's Creative Education*, Vol. 4, no. 2, 2019, 229-231.

poles of determinism and free choice, science makes its choice towards a probabilistic interpretation.<sup>9</sup>

Ontological thinking for critical thinking in science is focused on developing skills to analyze articles critically to improve action. This is proven by religion that critical thinking is an important skill in making evaluations. This claim is assessed with reference to creation and is explained further by experts in critical philosophy.

It is agreed that ontology is needed to improve critical thinking, so there is a desire to develop ontological procedures that could be useful for the learning curriculum. proves that Foucault's critical ontology is an appropriate substitute for making critical evaluations. This section considers the relevance of Foucault's ontology to critical assumptions in learning science to support ontology.<sup>10</sup>

The aim of critical ontology is to question the self through historical analysis of the limits imposed on us. A critical ontology seeks to analyze various types of views, institutions and cultural imperatives established as evidence, and to examine what is considered sovereign. Butler describes this type of ontological inquiry as raising "the question of the limits of highly defined methods of knowing .

### **C. Characteristics Knowledge Knowledge By Ontological**

Understanding ontology to subject science must based on character subject Knowledge, as it exists, is limited by its values dogmatic character . There are also characteristics of the ontology of insight science, including the following: first, science begins with research. Second, there is an empirical

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<sup>9</sup> Ahmad Irfan . "A Basic Assumption of Science as a Research Base for Islamic Education "*Journal Scientific Forum* , Volume 15 Number 2, May 2018.

<sup>10</sup> Unwakoly, S. *Journal Philosophy Indonesia*. Think Critical in Philosophy Knowledge: Study in Ontology, Epistemology, And Axiology. Bandung. Vol 5 No 2. 2022.

insight design and there is no design teachings. Third, insight into character logical, fair, systematic, methodological, Observative and fair. Fourth, respect the basis of confirmation (proof), explanation (description), continuity and reproducibility, radical skepticism, and various research procedures. Fifth, carry out proof of the existence of causality and the application of science to technology.<sup>11</sup>

Something statement would like obtained as assumption in argumentation objective when Already pass analysis with ontological way . Sourced knowledge on a meaningful ontological basis grounding oneself in the reality of oneself in such a reality Also exists in help explained, predict as well as control symptoms that exist to lead to the gross characteristics of nature (the subject of insight science).

#### **D. Application of Scientific Ontology in Islamic Education Management Science**

Ontologically, Islamic learning is the basis of people's lives as human beings thinking, feeling, reading and acting. Next, learning is an effort to develop people's potential, used as a tool to be happy and develop it. The ontology of Islamic education explores the basis of Islamic learning, the reality of Islamic learning with all the body patterns that surround it, includes the basics of Islamic learning as well as knowledge learning Islam, base objective learning Islam, base person as points. learning that is focused on teachers and teaching participants, and the basis of the Islamic learning curriculum.

How the science of insight is viewed using ontology so that the discussion is that the ontology carries out checks, carries out analysis

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<sup>11</sup> Mustakim, M. Journal of Tarbiyah Science. Ontology of Islamic Education . Vol 1, Number 2. 2012.

on the science of insight based on whether the science of insight really exists or does not exist. The illustration is Islamic Learning Management, in an ontological way so that the discussion focuses on Management Learning Does Islam really exist or not? not just the study program, but actually the knowledge taught is in fact no different from Learning Management in general. So ontologists try to convince and observe that a science of insight can really be proven to exist.

## CONCLUSION

Ontology is a theory about the meaning of an object, the properties of something that exists. The discussion of ontology is related to the discussion of metaphysics . Science assumes in ontology that the empirical objects that are the field of study have the nature of diversity, show repetitive properties and are all intertwined in an orderly manner. Sourced knowledge on the basis of ontology means grounding oneself in the reality of oneself in such a reality Also exists in help explained, predict as well as control symptoms that exist to lead to the gross characteristics of nature (the subject of insight science).

In Islamic Learning Management, ontologically, the discussion is focused on whether Islamic Learning Management actually exists or not, not just the study program but in fact the knowledge taught in it is in fact no different from Learning Management in general. So ontologists try to convince and observe that a science of insight can really be proven to exist

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