

## PHILOSOPHY OF SCIENCE AS THE HISTORICAL BASIS OF THE DEVELOPMENT OF SCIENCE AND KNOWLEDGE

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### ABSTRACT

*Philosophy is an extensive science, meaning it is closely related to our daily lives, and philosophy is the driving force of our daily lives as individual human beings and as collective human beings in the form of a society or nation. Philosophy of science is a philosophical reflection on the nature of science which will not recognize a stopping point towards achieving the goal, namely truth and reality. Understanding the philosophy of science means understanding the intricacies of science so that its most essential aspects and foundations also understand the perspective of science, the possibility of its development, and its interweaving between one branch of science and another. The research approach that researchers use in writing this scientific work is a type of library research. Philosophy is a science that seriously studies the true nature of everything. Science is a method of thinking objectively in describing and giving meaning to the natural and moral world to organize and systematize. Knowledge indicators are: It is accumulative, and its truth is not absolute but objective. There are six phases of scientific development: The Pre-Ancient Greece Phase, the Ancient Greek Phase, the Medieval Age Phase, the Renaissance Age phase, the Modern Age phase, and finally, the Contemporary Age phase.*

**Keywords:** *Philosophy, Historical, Development, Science, Knowledge.*

### I. INTRODUCTION

Philosophy plays a vital role in human thought to build knowledge. Philosophy digs and explores everything about nature as profoundly and deeply as possible. In this case, philosophy is the source of all science and knowledge. Several views on philosophy, including philosophy, are comparisons or developments of previous and current opinions supported by scientific evidence. Philosophy is to express the possibility of scientific proof. Many perceive it as part of something challenging to accept as something that already exists. Therefore, the assumptions that appear tend to believe that he is starting to enter a misleading realm, even though this is not the case. Especially in philosophy, people discover the essence of things with great care and interest and consciously think about things. Philosophy can be interpreted as part of a discipline, concepts and theories about science that have been analyzed and classified. Philosophy of science is the formulation of views about science based on scientific research. Then from here, we have a subject about the extent to which the philosophy of science has contributed to the world of education.

Science continues to experience development/progress, either gradual progress or instantaneous progress. Advances in science and technology are also considered the leading cause of the emergence of the modern era. In the modern era like today, there is an acceleration of movements in the exchange of various things, starting from the sale of information, cultural

exchanges, and so on. So, it cannot be denied that in carrying out their lives, humans are very dependent on science and technology because, with the developments in these two fields, everyday human life becomes more accessible. Besides that, scientific results can also increase knowledge and insight, improve the quality of education and so on. Thus, the advancement of science and technology has enabled people to fulfil all their needs more quickly and easily. As explained by Nadia (Farin, 2022: 309), the rapid development of science and technology can produce astonishing discoveries, which can significantly impact human life's progress.

Historically philosophy is the parent of science; in its development, science is increasingly specified and independent, but given the many problems in life that science cannot answer, philosophy becomes the foundation for answering them. Philosophy provides a substantial and radical explanation or answer to the problem. Meanwhile, science continues to develop itself within the boundaries of its territory while still being criticized radically. This process or interaction is a field of study in the Philosophy of Science. Therefore, the philosophy of science is an effort to bridge the gap between philosophy and science so that science does not despise philosophy and philosophy does not view science as a superficial understanding of nature.

Philosophy of science is a philosophical study of matters related to science; in other words, philosophy of science is an effort to study and deepen knowledge (science/science), whether it is the characteristics of its substance, its acquisition, or the benefits of knowledge for human life. This study is inseparable from the primary references to philosophy, which are included in ontology, epistemology, and axiology, with various developments and deepening carried out by experts.

## II. LITERATURE REVIEW

The urge to know (curiosity) as a natural human desire is the entry point for the birth of all knowledge. In other words, the birth of science will always be preceded by human curiosity about everything. What man know is called knowledge. The science that examines human knowledge is called the Philosophy of Knowledge (Epistemology or Theory of Knowledge) (Suharto, 2020).

Science, from time to time, continues to experience development and progress quite rapidly. However, considering the development of science with its extraordinary discoveries in the modern era, an attitude of optimism is needed alongside pessimism because even though, on the one hand, it has improved the quality of human life, on the other hand, it has become a symptom of a severe moral decline in humanity. Dangerous (Rofiq, 2018:169).

Philosophy of science is a branch of philosophy which examines science from a philosophical point of view to provide answers to several questions which are also its scope, namely the question of what knowledge is (answered by ontology), how knowledge is obtained (answered by epistemology) and what is it for. Wisdom is born (answered by axiology) (Sumarna, 2020:66).

Philosophy of science is believed to have existed around the 18th century, although signs of its emergence have long since appeared. If the study is placed in the XVIII century AD, the key figure is often compared to Immanuel Kant. Immanuel Kant is called the founder of the philosophy of science because he once stated that philosophy is a scientific field that can show the limits and scope of human knowledge, which according to him, are not sufficient enough to be answered by science, and this is because axiological reflection (the benefits of knowledge) for

any achievement in the field of science can only be guarded by philosophy, so it is said that science without philosophy will always be biased in meaning (Sumarna, 2020:71).

In general, the philosophy of science involves a process in which love and wisdom come together, where all efforts of thought are always aimed at solving new things wisely. Wise here has two meanings, namely excellent and correct. Wise means good, which means something is done ethically; Wise means right, which means something is done rationally. From this, it can be concluded that wisdom in philosophy contains something ethical and logical and continues to strive for knowledge and accuracy in thinking (Muktapa, 2021:23).

### **III. RESEARCH METHODOLOGY**

This research method uses a type of qualitative research. The purpose of using qualitative research methods is because this method is a method that focuses on in-depth observation. Therefore, using qualitative methods in research can produce a more comprehensive study of a phenomenon. The theoretical basis is also used as a guide so that the research focuses on the facts. Observation of data in this study was obtained from data collection techniques, data reduction, data presentation and concluding. The data obtained from this research comes from the internet, journals and websites.

### **IV. RESULT AND DISCUSSION**

Philosophy is derived from the Greek words "Phillen", which means love and "Sophia", which means wisdom. It can be interpreted that philosophy means love of wisdom. This etymological meaning has a background that emerged from the stance of Socrates for several centuries BC. Socrates said that humans are not entitled to wisdom because of the limitations of their abilities. Against wisdom, humans are only entitled to love him. Socrates' stance also shows his criticism of the Sophists claiming wisdom. In layman's terms, 'love' describes an action supported by two parties. The first party acts as the subject, and the second party acts as the object. The action or action is driven by a tendency of the subject to 'merge' with the entity. Blend with the thing, and the subject must know the nature or essence of the object. So knowledge of the object determines the unification of the subject with the object. The deeper the understanding of the subject, the stronger the union with the object. The term 'wisdom', whose root word is 'wise' and gets the prefix 'ke' and the ending 'an', describes knowledge about wisdom. So, wisdom is known as being correct, good and just. Such actions are born out of a strong will, according to a contemplative decision of the mind, and on consideration of deep feelings. Then, from the etymological approach, it can be concluded that philosophy means knowledge about knowledge. It can also be interpreted as the root of knowledge or the most profound knowledge (Suhartono, 2017).

History is a series of events that take place in human life. This sequence of events did not occur by chance but on purpose. The characteristic feature of historical objects is a series of events that always move towards developing a better life than before. History is a system of events originating from awareness of a specific thing, namely awareness of the need for changes for the sake of development and progress for human life. Historical events occur entirely purposefully because they always occur according to a plan. History is always rational and empirical. Therefore, history is a uniquely human problem. Since its existence, man is the only being who has created his history, evidenced by the changes made systematically from time to

time. With its history, humans are increasingly aware that they are creatures capable of making changes. Throughout history, too, humans have tried to change themselves to make themselves animals that are by their nature increasingly. Thus, it is clear that history contains all kinds of events that dynamically causally accumulate towards the future. History is futuristic (history is a matter of the end) (Suhartono, 2019: 109).

## V. CONCLUSION

Science is a method of thinking objectively in describing and giving meaning to the natural and moral world to organize and systematize. Knowledge indicators are: It is accumulative, and its truth is not absolute but objective. There are six phases of scientific development: The Pre-Ancient Greece Phase, the Ancient Greek Phase, the Medieval Age Phase, the Renaissance Age phase, the Modern Age phase, and finally, the Contemporary Age phase.

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