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FROM DATA TO WISDOM: MAPPING THE SEMANTIC SPECTRUM OF KNOWLEDGE IN CONTEMPORARY PHILOSOPHY AND COGNITIVE SCIENCE

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Abstract: The development of modern science requires a rethinking of the content of knowledge. Although the digital era has dramatically increased the volume of information, this does not always lead to a deep understanding or volume of wisdom. This article analyzes the semantic differences between knowledge and related categories such as information, information, beliefs, articles, and wisdom from the perspective of modern philosophy and cognitive science. The study is based on the DIKW (Data–Information–Knowledge–Wisdom) model, which creates conceptual boundaries of knowledge through epistemological theories and neurocognitive integration. The results show that knowledge is a multi-layered structure, consisting of a unity of semantic, epistemic, and axiological components.

Keywords: knowledge, epistemology, cognitive science, wisdom, current, DIKW model.

Introduction

The concept of knowledge is a fundamental epistemological category that has occupied a central place in the history of human thought. Since ancient Greek philosophy, the question "what is knowledge?" has been one of the main problems of philosophy. Plato defined knowledge as "reasoned true belief" and identified its three structural conditions: truth, belief, and justification. This model has been accepted as an epistemological criterion for centuries. However, in the 20th century, the analyses put forward by Edmund Gettier showed that the classical interpretation of knowledge was insufficient and created the need to reconsider knowledge as a more complex concept.

In modern times, the issue of knowledge is gaining importance not only in the philosophical sphere, but also in the context of cognitive science, neurobiology, and artificial intelligence research. In conditions of a sharp increase in the flow of information, it has become a scientific necessity to clearly distinguish knowledge from such close concepts as information, data, belief, and understanding. The abundance of information does not mean the existence of knowledge; knowledge, on the other hand, denotes a well-founded and systematic cognitive state, in contrast to simple belief.

In this context, this article aims to analyze the semantic spectrum "from knowledge to wisdom". The study identifies the boundaries of knowledge with information, belief, understanding and wisdom, and examines the semantic subtleties of this concept in various disciplines. Identifying conceptual boundaries allows for a deeper understanding of the nature of the human cognitive process and the place of knowledge in modern scientific thought.

Research Methods

This study was conducted on the basis of an interdisciplinary approach and used several scientific methods to determine the semantic essence of the concept of knowledge. The main methodological principle of the study is conceptual-analytical analysis. Using this method, the philosophical content of the category of knowledge, its relationship with such close concepts as information, belief, understanding, and wisdom, was theoretically analyzed.

At the first stage, the method of historical-philosophical analysis was used to study classical and modern epistemological views on knowledge. In particular, the theories put forward by Plato, Aristotle, and representatives of modern analytical philosophy were

analyzed comparatively. This approach made it possible to determine the historical evolution of the concept of knowledge. At the second stage, the method of comparative-semantic analysis was used. Through this method, the substantive boundaries of the concepts of "knowledge", "information", "belief", "understanding," and "wisdom" were determined, and their interpretations within the framework of various disciplines were compared - philosophy, cognitive psychology, and cognitive science.

In the third stage, the results of cognitive science and neurobiology were combined with epistemological analysis based on the interdisciplinary integration method. This approach made it possible to consider knowledge not only as a theoretical concept, but also as a cognitive process related to the activity of the human brain.

The spectrum of knowledge from information to wisdom was systematically modeled using the conceptual mapping method. This method served to identify the interconnections between the semantic levels of knowledge. As a result, the methods used allowed for a comprehensive analysis of the concept of knowledge as a multi-layered epistemological and cognitive phenomenon.

Results

The results of the study showed that the concept of knowledge is a complex epistemic phenomenon located in the center of a continuous semantic spectrum from information to wisdom. The analysis confirmed the need to clearly distinguish knowledge from its close concepts - information, belief, understanding and wisdom.

Information appeared as an initial stage of knowledge. According to information theory, as defined by Claude Shannon, information is a set of signs or signals that do not yet have a semantic interpretation. The results of the study showed that the presence of information does not mean the presence of knowledge, since knowledge requires interpretation and cognitive processing. Although it was found that belief is a partially compatible concept with knowledge, there is a fundamental difference between them. The epistemological problems outlined by Edmund Gettier showed that even the fact that a belief is true and justified does not guarantee knowledge. Therefore, knowledge must be independent of accidental correctness.

Knowledge was identified as the result of cognitive integration. According to Alvin Goldman's theory of reliability, knowledge is formed through reliable cognitive processes. This process requires the interaction of perception, memory, and thinking. Fourth, understanding was identified as a deeper form of knowledge. As Jonathan Kvanvig has noted, understanding is defined by the understanding of causal connections between facts rather than by knowledge of them. Wisdom was identified as the highest stage of knowledge, in which experience, reflection, and moral evaluation were observed to merge. Aristotle's concept of phronesis confirms that this stage is associated with practical reason and responsible decision-making. The results showed that knowledge can be interpreted not as a static concept, but as a dynamic semantic system that develops from information to wisdom.

Analysis and discussion

The study shows that the concept of knowledge is interpreted differently in different scientific directions. While in epistemology, knowledge is associated with the problem of substantiating truth, in cognitive science it is understood as the integration of perception, memory, and thinking processes. Therefore, knowledge cannot be limited to a single definition; it is conceptually a multi-layered phenomenon. Although information exists as a system of signs, knowledge is formed only through the process of interpretation. Previous experience in the human mind becomes a criterion for interpreting new information. As a

result, knowledge arises as an individual cognitive construct. This confirms the active and subject-dependent nature of the cognitive process.

The difference between knowledge and belief is determined by epistemic responsibility. While belief implies psychological confidence, knowledge requires justification and verifiability. The problem of Edmund Gettier led to the introduction of the criterion of reliability into the concept of knowledge, showing that accidental truth is not accepted as knowledge in epistemology.

Understanding is associated with the structural deepening of knowledge. Unlike memorization of facts, understanding allows us to identify and generalize causal relationships. This process is closely related to the analytical and reflexive activity of thinking. Wisdom is manifested as a practical and value-oriented form of knowledge. The concept of phronesis, described by Aristotle, expresses the ability to rationally apply knowledge in life situations. Thus, knowledge occupies a central place in the semantic spectrum, ensuring the process of transition from theoretical understanding to the maturity of practical consciousness.

Conclusion

This study aimed to identify the conceptual boundaries of the concept of knowledge within the semantic spectrum “from information to wisdom”. The analysis showed that the equating of knowledge with information, belief, understanding and wisdom is not scientifically justified and revealed its multi-layered epistemic structure. The results show that knowledge is an integrative cognitive state formed through processes of interpretation and justification. It is semantically more complex than information, epistemically more stable than belief, and is a transitional stage leading to understanding and wisdom. The content of knowledge requires not only correspondence with reality, but also reliable cognitive mechanisms.

The study clarified the interdisciplinary nature of the concept of knowledge between philosophy and cognitive science. This result confirms the need to integrate epistemological analysis with neurocognitive research and provides a basis for interpreting knowledge as a dynamic and constructive process, rather than a static one. The conclusions obtained can serve as a theoretical basis for modern educational theory, artificial intelligence research, and the development of a knowledge society. In the future, empirical studies of the neurobiological and axiological components of knowledge will further enrich this conceptual model.

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