THE IMPORTANCE OF ONTO-GNOSEOLOGICAL ASPECTS OF SCIENTIFIC INTELLIGENCE

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ABSTRACT

This article discusses the onto-epistemological aspects of scientific reasoning and its importance. The modern scientific landscape of the world is becoming increasingly systematic and integrated. Epistemologically, science emerges as one of the ways to know the world.

KEYWORDS: *Onto-Gnoseology, Philosophy, Deductive Idea, Concept, Epistemology, Philosophical Formalism, Logic, Theology, Philosophical Category.*

INTRODUCTION

A characteristic feature of modern civilization, standing on the threshold of the new millennium, is the information revolution, which has engulfed the world since the invention and introduction into practice of high-speed computers –computers and permeated human communications with computer information networks (M.F.Kozlova, 1972).

Today it is difficult to imagine an engineer, scientist, manager, financier, entrepreneur, trader, teacher, doctor, librarian or government official without a compact personal computer in combination with a wide variety of complementary electronic devices, equipped with powerful software tools, extensive data bases.

The process of computerization and informatization of society is the main factor creating a new, previously unimaginable infrastructure of society, restructuring material and social relations, social psychology and ideology. In terms of social consequences, it can be compared with similar previous revolutions associated with the invention of writing and printing. The computer industry is becoming the leading branch of material production and software attracts a large army of specialists: researchers, applied engineers, designers, technologists, while logic and mathematics are the basis of software (V.O. Quine, 1996).

Human culture, material and spiritual, having gone through a number of natural stages, starting from the primitive, instrumental and verbal, reaches its logical conclusion in such a powerful information and communication tool as a computer. That is why the current stage in the development of human civilization can be called a computer culture, given that this tool, which transformed the noospheric activity of people, has long outgrown the level of a computing device. As part of the information revolution, the computerization of science and education is taking place. In this regard, the natural process of symbolization and mathematization of scientific theories, the formalization of their language is intensifying, the role of abstract

thinking and its creative function in scientific and practical activities is increasing.Thus, the statements of science should acquire a higher degree of objectivity and reliability, and scientific theories should acquire a more conclusive character.

The latter is possible only if there is no doubt about the objectivity, reliability and evidence of the logic and mathematics itself, which lie at the foundation of both informatics and other formalized sciences. The discovery of logical and mathematical paradoxes, ongoing discussions about the status of the existence of logical and mathematical entities, methods and techniques of argumentation showed that not everything is safe in the foundations of logic and mathematics in this respect.

In addition, the exact languages of logic and mathematics are designed to covert he ever more expanding and multiplying concrete scientific pictures of the world, its non-standard models, therefore, classical logical and mathematical theories are no longer enough (R.F. Abdeev, 1994).

In the chain of philosophical problems of exact knowledge, an important link is the problem of the existence status of formalized entities, as well as formalized truths, because the concept of truth in formalized knowledge is called upon to play the role of a component that connects any scientific formalism through its interpretation with objective reality. Speaking of formalized truth, one cannot but keep in mind logical truth, and along with the logical and mathematical methods of describing reality and introducing the formal and model method into specific scientific theories, accuracy has entered science. Exact truths, starting their confident march from logic and mathematics, gradually transform the content of various theories in to the field of exact knowledge (V.I. Knigin, 1999).

What do these exact truths describe? These are no longer empirical approximate statements about the world itself (objective reality), but exact knowledge about the formalized mental model of this world, objectified by means of a computer in to a virtual reality specific to a particular theory.

Thus, the study of the relationship between objective and virtual (objectified subjective) reality in the field of exact knowledge through the category of truth is an urgent problem of modern epistemology.

Literature Review

The subject of research is formed through the deepening and expansion of the volume and content of the philosophical category of truth on the information base of exact (primarily fundamental) theories and their methodology, i.e. subject of study-*on to logical and epistemological* aspects of exact truth (V.E.Kemerov,2000).

The problems of aetiology of exact knowledge, specifically or among other related problems, have been and are being dealt with as Russian (In this regard, the works of M.S.Akperov, I.A.Akchurin, L.B.Bazhenov, M.S.Burgin, D.P.Gorsky,A.A.Zinoviev,A.V.Kornienko,V.I.Kuraev,B.E.Lednikova,A.M.Mostepanenko,I.S. Narsky,A.N.Nysynbaeva,A.V.Nuzhdina, A.P.Ogurtsova, V.E.Osipova, Y.A.Petrov, M.V.Popovich, G.I.Ruzavin, E.D.Smirnova, V.A.Surovtseva,A.K.Sukhotina,V.Tavantsa,A.I.Uemova,V.V.Tselishcheva,E.M.Chudinova,I.Y

.Chupakhina,V.S.Shvyrev,V.A.Shtoff,S.A.Yanovskaya,et   al.)andforeignphilosophers
(V.F.Asmus, 1965).

In modern Western science, even the Society for Exact Philosophy has appeared under whose auspices M.Bunge has been publishing the multi-volume Library of Exact Philosophy since 1971. A textbook by M.S.Burgin and V.I.Kuznetsov has been published. "Introduction to the modern exact methodology of science" M.: Aspect-press, 1994. E. Husserl's work "Philosophy as a rigorous science" M., 1994 was translated. In the field of technology, we can talk about jewelry-precisenano technologies.

K.Gödel, S.Gempel, R.Carnap, G.Curry, S.Kleene, W.Quine, R.Martin, R.Montagu, E.Nagel, I.Niiniluoto, X.Putnam,B.Russell, Strausson, A.Tarski, R.Tuomela, J.Hintikka and others). Especially great in this respect is the flow of Anglo-American literature of a positivist character. This is not surprising: it was during the development of the philosophical problems of the formalized sciences that positivism was able to move away from primitive empiricism in the direction widely represented by such well-known trends as logicism, intuitionism, formalism and analytical philosophy. The relative incompleteness and fragmentation of the development of the above problems in the domestic philosophical literature requires the expansion and deepening of research in this direction (N.I. Zhukov, 1990).

Research Methodology

Special issues of formalized logic, classical and deviant, are studied in the works of D.A.Bochvara,E.K.Voishvillo,Y.L.Ershova,Y.V.Ivleva,A.S.Karpenko,A.V.Kuznetsova,L.L.Maksimova,A.A.Markova,P.S.Novikova,O.F.Serebryannikova,E.A.Sidorenko,Y.A.Slinina,A.V.Smirnova,V.K.Finna,N.A.Shanin and others.

The formulation and own solutions of general epis temological (including general methodological) problems can be found in the works of classical philosophers: Leibniz, Kant, Hume, Spinoza, Descartes, Berkeley, etc., in the works of modernRussianphilosophers:R.F.Abdeeva,I.S.Alekseeva,B.V.Biryukova,V.P.Bransky,Y.M.Gorsky,P.P.Gaidenko,M.P.Zavyalova,E.V.Ilyenkova,V.V.Ilyina,A.S.Karmina,B.M.Kedrova,N.I.Kondakova,N.S.Konoplev,V.N.Karpovich, A.M.Korshunov, A.N.Kochergin, V.M.Kuznetsova, S.P.Kurdyumov,   V.A.Lektorsky,   A.F.Loseva, E.A.Mamchur,V.V.MantatovaS.T.Melyukhina,L.A.Mikeshina,V.N.Young,M.V.Mostepapanenko,N.A.Nosova,V.P.Ogorodnikova, Y.A.Petrova, Y.V.Petrova, G.I.Petrova, V.I.Porusa, O.S.Razumovsky, A.I.Rakitova, V.N.Sadovsky,E.A.Samburova, Y.V.Sachkova, B.C.Stepina, Z.A.Sokuler, A.D.Ursula, A.I.Uyomova, I.V.Chernikova, V.V.Cheshevandetc.

Analysis and Results

The material for generalization and systematization was, first, the data of logical and mathematical epistemology, as well as information from related fields of science, in addition, for comparison, contrasting and illustrations, information was taken from the history of philosophy, archeology, theology, natural science, economics, sociology and other spheres of human activity.

The purpose of the study is to develop, deploy and substantiate holistic concept of the relationship between the categories of truth, existence and virtuality in exact knowledge.

To achieve this goal, it was necessary to solve the following problems:

1. Develop your own point of view on the status and role of exact truths, virtual worlds of formalized entities, taking into account the positive developments of previous researchers in this field of epistemology. To formalize it in the form of the concept of truth in exact knowledge.

2. To analyze the views on the truth and virtuality of those European classical philosophers who, in the author's opinion, had a significant impact on the formation and formation of modern a etiology of exact knowledge.

3. Generalize and systematize the world achievements of modern epistemology in relation to solving the issues of substantiating mathematical and logical truth, the status of the existence of logical and mathematical entities, the specifics of the logical and mathematical pictures of the world, their relationship with objective reality, because, precisely, these sciences are the first in the history of human knowledge have under gone formalization and deductivization of their truths.

4. Give a justified criticism of in adequate, in the author's opinion, philosophical concepts of formalized knowledge, which, because formalized logic and mathematics serve as both a method and a language of scientific research, can damage the entire building of modern science.

5. To identify and systematize something new in the content of the category of virtuality, which introduced computer modeling into many areas of human activity, which involves a wide formalization and mathematization (digitization) of human knowledge (V.B. Gryaznov, 1997).

The relationship and mutual influence of concrete scientific and philosophical ideas is carried out, according to the opinion, as follows: empirical data lead a researcher or ideologist to certain world view principles, and the latter, becoming religious dogmas or philosophical dogmas, further lead followers along a certain path, which often narrows their research horizons, limits their courage and originality of thinking does not correspond to the changed field of study. The contradiction, in accordance with the laws of dialectics, is removed by the adoption of a new world view and methodological paradigm. In exact deductively constructed knowledge, the specificity of expanding the field of study and changing formalism proceeds according to the laws described by K.Gödel: a statement formulated in terms of a given language and not supported by justification by means of the accepted axiomatic, periodically makes it necessary to revise the latter in the direction of expansion, which is the internal spring of progress in the development of an exact theory. External pragmatic interest helps the search and formulation of such revision-producing formalisms, promising boundary statements (M.Bunge, 1975).

Psychologically, in terms of virtualistics, the virtual worlds of exact knowledge have, in relation to the personality of the researcher, all the characteristics of the individual psyche: generation, relevance, autonomy, and interactivity. However, the main thing is that the virtual

worlds of exact theories have a generic (according to Bacon) anthropomorphic character and, thanks to formalization, can have many exact interpretations, while their adequacy is substantiated rationally or empirically and pragmatically.

Through the computerization of any areas of human knowledge, there is a symbolization (including numerical) and formalization of their statements, the latter leads to the on to logizing of their universe of consideration. Logical-mathematical methods help to interconnect all levels of the virtual reality system, and then proceed to the final interpretation of a particular theory. Thus, empirical theories acquire, in addition to their empirical verifiable, the necessary formal accuracy and validity, which increases the degree of their reliability.

The problem of the desired and the necessary, the possible and the real, the ideal and the real, has always worried human kind. The particular relevance of thesedichotomiescanbetracedinsuchaformofsocialconsciousnessasscience.Scientific activity as a special human activity has as its ultimate goal the "improvement" of the world in the interests of humanity, the adaptation of the sphere of human habitation to its needs. That is why the end product of scientific activity

-Theory- is intended to ensure the improvement of universal human practice.

Thisprocessofimprovementjusttakesplacewithintheabovecategories.Considerationoftherelations hipofthisprocesswiththedevelopmentoftheworldviewandmethodologicalbaseofthesphereofexactk nowledge(withthecorrespondingconceptualapparatusofthe exact sciences) is an important philosophical problem(R. Lauria,1997).

This study solves this problem through its generalization in two fundamental categories, namely: truth - as the unity of the necessary, real and objectively real, and virtuality - as the embodiment of the desired, possible and subjectively real, which highlight the social, ontological and epistemological aspects of these two categories.

Conclusion/Recommendations

Systematic research in the field of aletiology of exact knowledgeis just being developed, a lot of work remains to be done to unite and hierarchize the universes of consideration of specific scientific theories, to identify ways to reduce their statements, which will serve to increase the level of theoretical science in general (V.F. Asmus, 1965).

It seems promising to continue research in the field of the first sciences that have won the status of exact sciences: logic and mathematics, it was in them that the theoretical guidelines for distinguishing between truth and truth, the universe of consideration and interpretation of theoretical constructs and statements were laid down by a set of elements that are increasingly approaching objective reality, practical human affairs and facts from virtual mental worlds. They were the first to face the difficulties of objectifying and coordinating the subjective mental representations of researchers, the natural (rather than the super natural) explanation of scientific intuition and the theoretician's inner experience (M.Bunge,1975).

No less interesting is the task of formalizing the rest of human knowledge within historically reasonable and practically useful limits, the stimulus here will be the needs of computer science based on the logical and mathematical approach to artificial intelligence, including the problems of speech recognition, database logic, expert system logic, semantics of natural and

Artificial languages.

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