

# MATERIALISM AS A GNOSIOLOGICAL AND METHODOLOGICAL PRINCIPLE AND THE "HIERARCHY" OF DMITRY KRIVENKO

(To the Memory of Dmitry Tarasovich Krivenko

(30.10.1941–04.10.1994))

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## Abstract

On the 30th anniversary of the death of Dmytro Tarasovych Krivenko (October 30, 1941, the village of Velyka Racha, Radomyshl district, Zhytomyr region — October 4, 1994, Kyiv) — philosopher, methodologist of science, Candidate of Philosophical Sciences (1976), one of the developers of alternative Ukrainian philosophy during Soviet times.

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Photo 1: Dmitry Tarasovich Krivenko

"- There is positivity in everything that exists.  
- But what is the positivity in atheism? - the disciples asked.  
- Helping others as if there were no God"

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quote under verification

From the perspective of an outside observer, the history of Western philosophy appears as a continuous chain of failures and disappointments.

At the dawn of Western civilization, religious metaphysics dominated, but it faced challenges from the Renaissance and the development of scientific ideas, which led to its crisis. This contributed to the rise of various deistic concepts, such as those proposed by Descartes, Spinoza, and Leibniz, who attempted to build metaphysics using an axiomatic method similar to Euclidean geometry.

However, this philosophical paradigm underwent a crisis after Kant's work on the limits of pure rational knowledge. Hegel tried to save the concept through his dialectical philosophy and the phenomenology of spirit, but this philosophy also faced a crisis due to its "all-predictability" and difficulties in practical verification (as noted by Popper [1]). In turn, the emergence of Freudianism,

Marxism, and existentialism also contributed to the crisis of Hegelianism, as each sought to explain its own domain of reality in opposition to the "all-encompassing" nature of Hegelianism.

To overcome the crisis described by Schiller and Nietzsche and to continue the construction of Western philosophical metaphysics, a new language was needed, as proposed by Russell and Wittgenstein. However, this approach, too, encountered challenges, such as Gödel's famous theorem or Russell's paradox. Overall, it seemed that after a series of cognitive failures, Western metaphysical philosophy was still far from finding an answer, just as it had been for millennia. The only area where some progress could be observed was the development of unified field theory and cosmology, but this was more related to physics than philosophy. Moreover, these issues were being addressed in all developed countries, not just in the West.

Thus, it is logical to assume that the only area where philosophy still has some opportunity for progress is in the field related to methodology and the philosophical interpretation of science. One such philosophical interpretation of science is dialectical materialism. For example, the famous story of understanding the nature of light in terms of dialectics goes something like this: Newton, through analogy with the mixing of particles of different paints (red, blue, green forming white paint) and experiments on the dispersion of light, asserted the corpuscular nature of light (from the perspective of dialectical logic, this can be interpreted as a "thesis"), Huygens and Maxwell developed the wave theory of light ("antithesis"), and quantum mechanics, following the experiments of Compton, Franck-Hertz, Davisson-Germer, and others, united these concepts in the idea of wave-particle duality ("synthesis").

In light of the above, it is quite possible that it is no coincidence that George Soros's teacher, philosopher and methodologist of science Karl Popper, known for his critique of Plato, Marx, and Hegel, paradoxically characterized Lenin's book "Materialism and Empirio-criticism" as "excellent" [2]. However, materialism as a methodological principle is by no means equivalent to atheism, as claimed by Marx and Lenin. From the perspective of a religious person, such materialism merely implies, due to the hidden and fundamentally unknowable nature of the Creator, "questioning" the Creator through experimentation with matter. As the famous joke goes: "If you're trying to talk to God, that's prayer, but if God is talking to you, that's schizophrenia."

Materialism, as a methodological principle, is tacitly accepted by the scientific community — in scientific journals, articles, conferences, etc., it is not customary to discuss religion.

In the classical materialist approach, hierarchy is seen as something supplementary to dialectics — this follows from the very term "dialectical materialism," from the large number of departments and textbooks specifically on dialectics, not hierarchy, as the foundation of all development, according to Engels, is the struggle of opposing sides ("the law of unity and struggle of opposites" — the

first law of dialectics), through which progressive movement occurs "from the essence of the first order to the essence of the second order, and so on endlessly."

The oppositionally-minded Kyiv philosopher Dmitry Krivenko [3] (Photo 1), in his exploration of the logic of the formation of fundamental concepts in physics in the late 1960s, proposed a change in approach — to consider dialectical logic as supplementary to his proposed hierarchical logic, since the formation of physical concepts did not always arise through dialectical struggle. However, the understanding of fundamental physical concepts always passed through certain stages or levels of understanding. For example, the development of the concept of temperature occurred without the dialectical element of "synthesis" — scientists over time simply rejected the concept of "caloric fluid" as inconsistent with experimental data and accordingly refined the concept of temperature as a measure of kinetic energy, subsequently arriving at the more general relationship  $1/T = dS/dE$  ([4], [5] D.T. Krivenko The Logic of the Formation of Fundamental Physical Concepts 1961-88, Kyiv, 1979).

What is logic in the most general sense? It is a method of finding truth according to certain rules. For example, verification of truth or falsity in ordinary logic, proposed by Aristotle, implies adherence to principles such as the law of the excluded middle and others. Similarly, in the more general hierarchical logic, structure is assumed to exist both in objects and in cognition. If such a structure is found, the corresponding model is considered close to the truth; if the structure is absent in the model, the model is considered incorrect.

Using this logic, Dmitry Krivenko proposed a hierarchical methodology of cognition, a hierarchical model of ontology, and an original model of people's political preferences ([5],[6],[7],[8],[9]).

Most likely, this concept, like all previous ones, is not without its flaws and will be reinterpreted, but nonetheless, from the author's perspective, it represents a certain interest in terms of the methodology of science.

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