Submitted Summaries

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Jerzy Golosz, Reductionism, Scientific Realism and the Ontology of Space and Time. The Ontology of Zdzisław Augustynek

The paper discusses the ontology of Zdzisław Augustynek, especially the part of this ontology that relates to space and time. This position is analyzed as an attempt to implement two methodological postulates, namely the postulates of reductionism and scientific realism.

Mariusz Grygianiec, Against Point Eventism. In Honour of Prof. Zdzisław Augustynek

The ontological theory of point eventism appears in the Polish philosophical literature as Zdzisław Augustynek's original work, belonging to the glorious philosophical tradition of the Lvov-Warsaw School. The author concentrates exclusively on «weak points» of Augustynek's eventism (skipping simultaneously all its unquestionable advantages); he examines basic notions and statements of the analysed doctrine. The main aim of this critical survey is to prepare a ground for a proper reconstruction of this ontological stance.

Mieczysław Omyła, Semantic Homomorphism and Reification of Situations

The fundamental features of the non-fregean logic (formulated both in structural and in invariant version) are discussed. The difference between two notions introduced by Suszko in his article "Reification of situations" is analyzed: semantic homomorphism (projection of the set of sentences of a given language into the universe of situations) and of reification of situations (projection of the universe of situations into the universe of events).

Michał Tempczyk, Supersymmetry — Science or Fantasy?

Elementary particle physics is an intensively developing fundamental branch of physics. It has many important results and the picture of the fundamental level of the structure of matter elaborated by this theory becomes more and more detailed and complete. Physicists call the picture the Standard Model. However, in spite of its great achievements, Standard Model has several serious problems that cannot be solved by its methods. In order to overcome these problems physicists formulate the ultimate physical theory, called the supersymmetry theory. They have big expectations with respect to this theory and they build strong accelerators to perform experiments testing specific predictions of supersymmetry. Till now none of those predictions has been empirically corroborated and this fact leads to the conclusion that the idea of supersymmetry is more fantasy than the empirical scientific theory. The paper is based on the presentation of the supersymmetry theory given by G. Kane in his book *Supersymmetry. Squarks, Photinos and the Unveilling of the Ultimate Laws of Nature.*

Anna Jedynak, French Conventionalism and Its Influence on Polish Philosophy

The paper presents the main ideas of French conventionalism as represented by Duhem, Poincaré and Le Roy. Clarified are some misunderstandings and misinterpretations on which the negative opinion on conventionalism is usually based. Conventionalism is presented as a source of the antipositivistic breakthrough. It thus led to the most important discussions in 20th century philosophy of science, which tended to undermine epistemological fundamentalism. The influence of conventionalism is shown — on European philosophy and specifically on Polish philosophy, especially on works of K. Ajdukiewicz and his followers.

Marcin Tkaczyk, Modal Expressions in the Language of Physical Science

Modal concepts — among them the concepts of logical, physical (nomic) and metaphysical necessity — used to be quite important for philosophy of science during centuries. However, in the XX c. most philosophers preferred not to recognize those concepts in science (especially the concept of physical necessity). They were wrong. Some patterns from history of physics are presented, showing the concept of physical necessity playing an important role in the scientific research of nature. And the nature of physically necessary statements is different from both logically necessary statements — on the one hand — and contingent statements, on the other. Consequently three attempts to explain the nature of physical necessity are discussed. (1) Physical necessities are just relative necessities, logical consequences of physical laws. (2) Logical and physical necessities are of the same nature, although logically necessary statements are as well analytical, while those physically necessary are synthetic. Some serious difficulties arising in both theories are shown. Finally a third explanation is outlined. (3) The two kinds of necessary statements differ in their reference: they describe different kinds of real relationships (connection).