Submitted Summaries

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Jerzy Gołosz, Motion, space, time

The paper discusses the properties of spacetime we recognize by analyzing the phenomenon of motion. Problems of special interest are the spacetime symmetries, the spacetime structures and the ontological status of spacetime. These problems are considered on the grounds of the classical theories of motion contained in Newtonian physics, special and general theory of relativity. The controversy between an absolute and a relational conception of motion and its ontological implications are also analyzed.

Marek Łagosz, Is the man a measure of the Universe? An issue of the anthropic principles in cosmology

The paper discusses problems concerning anthropocentric understanding of cosmology and physics. The author considers two version of anthropic principle („weak" and „strong"). Among other things the connection between anthropic principle and cosmological principle is here analysed. The author also deals with the problem of object—subject relation in physical science (probability and measurement in quantum mechanics). He have come to the conclusion, that anthropocentric interpretation of physical science leads to essential difficulties.

Jan Bigaj, Some remarks on history in K. Ajdukiewicz's classification

History is hardly ever classified not as the science about the past of the human race. Meanwhile, fairly big part of it is due to non-humanistic sciences like paleontology, geology or cosmogony. Thus, it would be reasonable to classify history by methodology rather, common to the mentioned sciences, that allows to reconstruct the past on the grounds of various kinds of traces

Władysław Krajewski, On fundamental and non-fundamental kinds of existence

There is one fundamental and many non-fundamental kinds of existence. Things (material bodies) exist fundamentally. Many other objects exist non-fundamentally: properties, events, relations, states; abstracts (universals), laws of Nature; possible states, virtual particles; minds, mental processes; ideal objects created by minds (Popperian „World 3"). All of them are always based on material bodies, but they exist really.

Ondrej Majer, Theory of sequential events

The article deals with the problem of inductive learning and predicting in dynamic processes, which can be formally represented as time series of atomic events. The central notion of sequential event is characterised as a finite subsequence of adjacent atomic events in a series. In the first part of the article an algorythmic model of learning is introduced. The criterion of learning is based on the frequency of a particular sequential event and on the time-distance of its previous occurrences from the moment of learning. The second part deals with the problem of evaluation of hypotheses in the process of predicting sequential events. A first order language of sequential events and axiomatic theory of sequential events are defined. The theory is proved to be consistent (a model of the theory is constructed). Then a probabilistic evaluation function for sequential events is defined as an analogy of Carnapian confirmation function. In the conclusion this probabilistic evaluation is discussed from the point of view of the foundations of probability.

Kordula Świętorzecka, About the application of some modal rules of inference to non-logical reasonings

The presented paper takes up the attempt to analyse and specify the suspicion that some modal rules of inference are paralogical in application to non-logical reasonings (s.c. modal fallacy). The considerations have been limited to modal prepositional calculi: K and S5, which are intended to be a formal base of these non-logical reasonings - proofs of so called specific thesis on the grounds of the particular specific theories. Pointing out the properties of being permitted, being valid and being derivable in case of inferences rules and also semantical relations of point, structure, frame and inferential consequence in standard semantics of possible worlds, enables to define two kinds of paralogism: point and structural. Justification of the suspicion of modal fallacy occurrence in the case of a given inference rule, depends on pointed metalogical properties of this rule and also on what kind of the notion of paralogism is being discussed. It appears that when a given rule is paralogical only pointly (and not structurally), the sufficient condition of avoiding modal fallacy is to consider the specific axioms of the given specific theory as the sentences which are structurally true (structural truth is of course not equivalent to logical truth). If we want to treat these axioms as sentences which are pointly true, we have to eliminate pointly paralogical rules. In this case it is enough to construct such axiomatisation of calculi K and S5, in which we use the notion of modal clo-

sure (it eliminates the primitive rule of Goedel and all rules derivable from it - rules which are structurally but not pointly correct).

Renata Ziemińska, Nozick on Knowledge and Skepticism

Nozick is the author of the conditional definition of knowledge where two subjunctive conditionals replace internalistic notion of justification. If you know that *p*, you have true belief that *p* and also in the close possible worlds you would accept *p* when *p* is true and you would not accept *p* when *p* is false. Nozick agrees with skeptics that we do not know that we are not brains in the vat. But he claims that we do know all the trivial things we think we know. The only way to accept the two theses is to deny the Principle of Clousure. According to Nozick knowledge is not closed under known logical implication. But is it right to deny the principle? Our everyday knowledge implies that the skeptic is wrong. If I know that I am reading a text on Earth, it is false that I am on Alpha Centauri floating in a tank. To reject skeptic it is enough to deny the transparency principle (if I know, I know that I know). When knowledge is possible without knowledge about that knowledge, we can know even if we are not able to prove that we know.