Submitted Summaries

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Michał Heller, Noncommutative unification of dynamics and probability
Noncommutative geometry is quickly developing branch of mathematics finding important application in physics, especially in the domain of the search for the fundamental physical theory. It comes as a surprise that noncommutative generalizations of probabilistic measure and dynamics are unified into the same mathematical structure, i.e., noncommutative von Neumann algebra with a distinguished linear form on it. The so-called free probability calculus and the Tomita-Takesaki theorem, on which this unification is based, are briefly presented. It is argued that the unitary evolution, known from quantum mechanics, could be a trace of noncommutativity on a deeper level. Philosophical significance of these results is also discussed.

Izabela Bondecka-Krzykowska, Structuralism as an alternative view to platonism in the philosophy of mathematics
The aim of this paper is to analyze structuralism as an alternative view to platonism in the philosophy of mathematics. We also try to find out if ontological and epistemological problems of platonism can be avoided by admitting the principles of structuralism.

Structuralism claims that mathematical objects are merely positions in structures and have no identity or in general any important features outside these structures. Such view allows to avoid problems of the nature of numbers and other mathematical objects. But the chief motivation of structuralism is in fact epistemological. It offers a nice way of explaining how one can get the knowledge of mathematical objects by the process of abstraction.

On the other hand, there are many problems connected with mathematical structuralism. Some of them are analyzed in the paper. We come to the conclusion that

mathematical structuralism, up to now, can't express the whole truth about mathematics.

Józef Dębowski, Traps of computationisme

The paper concerns basic restrictions (and also simplifications and misinterpretations) which happens when one tries to explain mind processes (especially cognitive ones) by an analogy to formal, algorithmical and anticipated computation processes. The paper puts together the most important reasons why these attempts come to grief. The essence of computative reduction is shown among other things on the basic theorems of modern metamathematics. Especially it gives prominence epistemological consequences Gödel's theorems and recent discovers in metamathematics made by Gregory J. Chaitin. But simplifications of computationisme (and partly of whole cognitivisme) don't mean that the other way is only postmodernism.

Rafał Palczewski, Semantical contextualism

Contextualism is an epistemological claim that truth-conditions of knowledge ascribing sentences depend on context in which they are uttered. The discussion concerned with its background and assumptions is predominant in recent epistemology. However, contextualism is known better as the suggested solution for skepticism about the external world. In this paper I present one of the most important contextualist theory which have been proposed in 90's by Keith DeRose. In what follows I outline this proposal's main sources, i.e. i) a relevant alternative theory, ii) Nozick's definition of knowledge and iii) two earlier contextualist ideas made by David Lewis and Gail Stine. Next, I consider some weak aspects of this theory that have been pointed out by critics.

Renata Ziemińska, The concept of introspection in Anglo-Saxon analytical philosophy

„Introspection" in its broad sense (Shoemaker, Armstrong) is each non-inferential access a person has to his/her own current mental states and events. It includes both introspection as a conscious act and introspection as pre-introspective awareness. „Introspection" in its narrow sense (Ryle, Dretske, Dennett) excludes pre-introspective awareness as not self-sufficient kind of access and part of some other conscious act. Introspection as a self-sufficient conscious act can be explained as second-order thought or reduced to third person knowledge but pre-introspective awareness can not (it is left as a mystery).

Author claims that either pre-introspective awareness deserves the name „experience" and in source of special first-person knowledge (even if it is part of other sources of knowing and can be brought to consciousness only by proper introspection), either introspection as an act is a kind of experience and source of knowledge (sense experience is also some very fast interpretation of stimuli). Both pre-introspective awareness and proper introspection are kinds of experience if experi-

ence equals direct acquaintance, without any inference and stages. „Perception" can be left for sense perception of external objects. The result of introspection are not incorrigible but persons have „privileged access" to their own thoughts.

Eugeniusz Żabski, Is the principle of non-contradiction „the surest rule of thinking and being"?

Various arguments for and against principles of non-contradictions: ontological and logical are presented in this article. Two non-classical sentential calculi, in which logical principles of non-contradictions are not effective, are presented too.

Piotr Żuchowski, Formal construction of an idea in Roman Ingarden's ontology

In this text I take into account Roman Ingarden's theory of general objects. Polish phenomenologist avoided most of paradoxes implied by traditional theories of universals pointing out the difference between two kinds of form inherent in general object, namely form of subject of properties and form of whole and parts. Every idea has twofold construction: as an idea (qua idea) it is a subject of peculiar properties and on the other hand it has a content consisted of so called constants and variables. The content of the idea has a whole-parts form. This however is inconsistent with other analyses of whole-parts form and of the character of constants and variables given by Roman Ingarden. In the consequence I claim that a third form, unique for general object, is needed. I also point out difficulty of indicating positive characteristic of general object (i.e. other than negation of properties of individuals).