
Submitted Summaries

Filozofia Nauki 9/4, 135

2001

Artykuł został zdigitalizowany i opracowany do udostępnienia w internecie przez **Muzeum Historii Polski** w ramach prac podejmowanych na rzecz zapewnienia otwartego, powszechnego i trwałego dostępu do polskiego dorobku naukowego i kulturalnego. Artykuł jest umieszczony w kolekcji cyfrowej bazhum.muzhp.pl, gromadzącej zawartość polskich czasopism humanistycznych i społecznych.

Tekst jest udostępniony do wykorzystania w ramach dozwolonego użytku.

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Jarosław Mrozek

Cognitive functions of mathematics

The paper is an attempt to present the cognitive functions of mathematics in relation to empirical sciences. Firstly — mathematics is a ‘generator’ of mathematical categories used in natural sciences. In this sense mathematics is a science about the tools of cognition which it creates or perfects. Secondly — mathematics plays the role of ‘prism’ through which we view the world because some phenomena e.g. from the micro- and macro-world can only be seen through the prism of mathematical structures and notions. And thirdly — mathematics is also a ‘selector’ of cognitive content. It eliminates from the cognitive field these phenomena which presently can’t be grasped by the existing mathematical structures. It is worth noticing that the functions of mathematics: ‘selector’ and ‘prism’ are complementary in some sense; although they are opposites (‘prism’ lets you ‘see’ something, and ‘selector’ restricts this ‘seeing’), they don’t exclude each other.

Cezary Cieśliński

Arithmetic and intensionality

The paper consists of two parts. The first part contains a critical review of „Gödel theorems, possible worlds and intensionality” by W. Kryzstofiak. Kryzstofiak argues that Gödel’s incompleteness theorem and, in particular, the technique of arithmetization of syntax, gives rise to intensionality and intentionality in arithmetic. The author tries to show that these claims are mistaken and based on a simple misunderstanding of the incompleteness theorem and its proof. In the second part the author explains the traditional use (in the sense of Feferman) of the term „intensional” as applied to arithmetical context.