
Abstracts

Filozofia Nauki 19/2, 153-157

2011

Artykuł został 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.

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Tadeusz Pabjan, Joseph Życiński's Idea of the Field of Rationality

One of the most important and the most valuable theme that can be found in the philosophical writings of Joseph Życiński is the idea of the field of rationality, which is a kind of a formal field constituted by a net of mathematical structures and abstract relations. This hypothesis explains the so called mathematicity and rationality of nature by assuming that formal structures are ontologically prior to the physical phenomena. In the present paper the idea of the field of rationality will be discussed. The article consists of three parts. The first deals with the problem of mathematicity which is a starting point of Życiński's analyses, the second presents the most important features of the field he talks about, the third compares his idea with some concepts of Whitehead whose philosophy was his main source of inspiration.

Keywords: Życiński, field of rationality, mathematicity of nature

Karol Polcyn, Can Perceptual Experiences Justify Beliefs?

The question whether perceptual experiences justify perceptual beliefs is ambiguous. One problem is the well familiar skeptical one. How can perceptual experiences justify beliefs if those experiences may systematically deceive us? Our experiences might be just as they are and yet the world might be radically different. But there is also another problem about the justification of perceptual beliefs which arises independently of the above skeptical worry. This other problem has to do with our understanding of the very notion of justification. It seems natural to think that justification can exist only in so far as what is justified is inferentially linked to the justifier. The question, then, is whether perceptual experiences can serve as an inferential basis for perceptual beliefs. The content of experiences does not seem to be the same sort of content that is possessed by beliefs. So the nature of the relation be-

tween experiences and beliefs is far from obvious. In this paper I survey various attempts of justifying the view that there is an inferential relation between experiences and beliefs so that the latter can be justified by the former and I argue that none of those attempts is satisfactory. I also suggest that the problem which those attempts address may be illusory. Even though it seems true that experiences and beliefs possess different kinds of contents, there may be no logical gap between those contents that needs to be bridged by some philosophical reflection.

Keywords: perception, beliefs, justification, conceptual vs. nonconceptual content, representation

Krzysztof Wójtowicz, Ontological Reductions in Mathematics. Part II: Argumentational Strategies for Realism

This is the second part of the study concerning the problem of ontological reductions in mathematics. In this part, some major strategies of argumentation in favor of mathematical realism are presented. The versions to be considered are: Gödel's realism, Quine's quasi-empiricism and Balaguer's *Full-Blooded Platonism*. Some introductory remarks considering the problem of ontological reductions in the context of these three stances are also presented.

Keywords: philosophy of mathematics, ontological reduction, mathematical realism

Marek Woszczek, Leibniz' Series and the Problem of Dynamics in the Quantization of Gravity

The problem of time appears in the fundamental physics in a context of some attempts to formulate the quantized model of general relativity and it shows the inadequacy of many metaphysical assumptions underlying the principles of classical physics. The author uses the Leibnizian ontological model in order to demonstrate that the conceptual core of this problem could be basically identified in the context of tension between the principle of completeness of the world histories, and the reality of dynamics. He describes shortly modern cosmological model of the growing causet in order to show the similar construction in the area of theoretical physics and the necessity of generalizing the notion of „dynamics”. The author puts the thesis that the ontology of quantum block-universe not only doesn't exclude some dynamics, but it might also assume it on the fundamental level of description of the nature while preserving the physical general covariance and giving up the external, absolute time.

Keywords: time, Leibniz, block universe, quantization of gravity, general covariance

Krzysztof A. Wiczorek, The Mechanisms of Falling Down the Slippery Slope

The empirical slippery slope arguments are arguments of the following form: if we take a first step A, as a result of a sequence of events, step N will necessarily or very likely follow; N is clearly not acceptable; therefore we must not take step A. Such arguments are often used in the discussions concerning abortion, assisted sui-

cide, human gene therapy, free speech, decriminalizing marijuana, gun control and other ethical or social issues. In this article, I am trying to argue that although slippery slope arguments are not deductive, they need not to be considered as fallacies. There are some mechanisms that make the realization of the scenarios sketched in the slippery slope arguments much more probable than one could think. I analyze three different examples of such mechanisms. The first one originates in the psychological phenomenon of cognitive dissonance. The second is connected with the use of precedents. The third mechanism depends on so-called multi-peaked preferences which some people might have when they make their decisions.

Keywords: argumentation, slippery slope, cognitive dissonance, precedent, decision making

Krzysztof Hansen, Peter Unger's Argument in Favour of Mereological Nihilism

In this paper I am analyzing Peter Unger's famous argument in favour of mereological nihilism (according to this view elementary particles are the only existing objects), called: „Sorites of Decomposition”. This argument is based on the fact that we can remove one, single atom from a compound object without making it ceased to exist.

First I present different versions of Sorites of Decomposition and different ways of rejecting this argument — like appealing to common sense or essential properties. Finally I argue that one of the premises from the original version of the argument is obviously false — we cannot always remove one single atom from an object without making it ceased to exist.

Keywords: ontology, mereological nihilism, the special composition question

Anna Wójtowicz, Marcin Trepczyński, A Non-Monotonic Logic as a Pattern of Reasoning in the Unfavorable Conditions

A non-monotonic logic is a formal calculus where the consequence relation is not monotonic. Intuitively, nonmonotonicity of the consequence relation indicates that obtaining a new piece of information can reduce the set of the accepted sentences. In particular, it allows us to draw conclusions on the basis of „the lack of evidence to the contrary”. The purpose of the paper is to present the basic notions of non-monotonic logic, which will be needed in two papers in this volume.

Keywords: non-monotonic logic, pattern of reasoning, consequence relation

Anna Wójtowicz, The Non-Monotonic NonFregean Logic

NonFregean logic is the classical logic enriched by identity connective. In one of possible interpretations of this calculus, the identity connective joins two sentences into a true sentence when these sentences have the same meaning. But when (if any) do simple sentences (i.e. sentences not containing logical constants) have the same meaning? In the paper the non-monotonic version of nonFregean logic is presented. The starting point of every reasoning in this logic is that all simple sentences have

the same meaning. This assumption may be retracted in order to maintain consistency with a new piece of information.

Keywords: nonFregean logic, theory of meaning, non-monotonic logic

Marcin Trepczyński, Thomas Aquinas Non-Monotonically

Non-monotonic logics has been popular for recent 15 years. However, it occurs that they are useful to describe some reasonings presented by... Thomas Aquinas. In this paper I show four examples of reasonings where Thomas abandons the principle of monotonicity, all taken from two questions of *Summa theologiae* concerning God. In each of them Aquinas adds some new premises to the previous set of premises and then draws a conclusion contrary to the previous one, what is impossible under the classical inference. In the next step I present some conclusions, primarily: that for sure we cannot state that these reasonings are just entimematic; that Thomas appears as a superintelligent observer having a holistic view and hence may seem to use in his reasonings rather reduction than deduction; and that we should not call his logic „default”, but rather talk about „the logic of *theoria*” or „contemplative/speculative logic”. Finally, I try to find the goal (or the meaning) of using by Thomas one of non-monotonic logics, taking into account that his inferential and interpretive rules serve to organise and clarify some theses (which are very instructive from the perspective of hermeneutics). Perhaps we may find this goal in... education. Well, after all, the *Summa* is a textbook. As we can see — not only of theology.

Keywords: non-monotonic-logics, Thomas Aquinas, reasoning, inference, *Summa Theologiae*

Adam Andrzejewski, The Problem of Change and Numerical Identity

In the paper, classical assumptions of the problem of change are presented and analyzed. The author considers following assumptions which make theses about: (i) identity and persistence through time; (ii) a conceptual change; (iii) intrinsic properties; and (iv) the Leibniz's Law. In the light of the analyses, it is shown that the problem of change does not have substantial nature and therefore cannot be treated as legitimization of the theories of persistence. Finally, the author acknowledges a relationship between the rethought matter of change and the theories of persistence.

Keywords: the problem of change, identity through time, persistence, perdurantism, endurantism, Leibniz's law

Katarzyna Paprzycka, The Epiphenomenalism Charge as an External Objection to Anomalous Monism

The paper is a critical reaction to M. Grygianiec's discussion of the status of the epiphenomenalism objection to anomalous monism. Grygianiec argues that the objection does not arise for Davidson if one takes his nominalism seriously. I show that Grygianiec construes the epiphenomenalism charge as an internal one. I argue that it can be viewed as an external objection to anomalous monism, moreover one that is

justified, adequate and charitable. I distinguish two interpretations of the objection and show that an appeal to charity can explain why an apparently inadequate form the objection is often preferred.

Keywords: epiphenomenalism, anomalous monism, Davidson, Grygianiec, Gibb, internal objection, external objection