

On Ajdukiewicz's and Quine's Views on Ontology



ARTUR KOSECKI

Abstract

The aim of the paper is to analyze the views of Willard van Orman Quine and compare them with the views of Kazimierz Ajdukiewicz, an eminent philosopher from the Lvov-Warsaw School. I will argue that Ajdukiewicz's approach to ontology is deflationary and, in that respect, similar to Quine's. In my analysis of these two ontological stances, I would like to refer to Price's deflationist interpretation of Quine's views in order to highlight the similarity between Ajdukiewicz's views and Quine's stance on ontology. Additionally, as both Ajdukiewicz and Quine used a method of paraphrase, my paper also discusses similarities and differences in the methods used by these central representatives of two philosophical environments – Polish and Anglosphere.

Keywords: *deflationism, Kazimierz Ajdukiewicz, Lvov-Warsaw School, metaontology, ontology, Willard Van Orman Quine*

1 Introduction

The views of Kazimierz Ajdukiewicz on ontology are bound with his belief that cognition is language-based [24, p. 199]. One of the consequences of this assumption is that ontological views ought to be relativized to the language in which they are being expressed. Willard Van Orman Quine adopts a similar stance on ontology. He claimed that the question of existence should come down to the ontological commitments of scientific theories [20]. Huw Price describes Quine's approach to ontology as deflationary [14], [15]. The purpose of this article is a comparative analysis of Ajdukiewiczian and Quinean views. I intend to prove that Ajdukiewicz's standpoint on ontology should be regarded as deflationary.

This paper is organized as follows: in section 2, I will introduce the notion of ontological deflationism. In section 3, I will refer to the interpretation of Price that presents Quine as a deflationist. In section 4, I will

explain Ajdukiewicz’s semantic epistemology and describe paraphrase in the Ajdukiewiczian tradition. In section 5, I will present Ajdukiewicz’s views on ontology. In section 6, I will compare one Ajdukiewicz’s and Quine’s views on ontology.

2 *Ontological deflationism*

Ontological deflationism is a view according to which answers to questions about existence are either trivial or purely linguistic in nature [8, p. 320]. This standpoint denies prime significance to ontological problems. The representatives of deflationism emphasize that the term “exists” is ambiguous and depends on some conceptual apparatus, i.e. the term “exists” has different meanings with respect to language and conceptual apparatus, e.g. Putnam [16]; Hirsch [9]. Such an approach to ontology is described as ontological pluralism. Its adherents often refer to the views of Rudolf Carnap:

If someone decides to accept the thing language, there is no objection against saying that he has accepted the world of things. But this must not be interpreted as if it meant his acceptance of a *belief* in the reality of the thing world [...]
To accept the thing world means nothing more than to accept a certain form of language. [6, p. 23]

Deflationists propose a strategy which aims to replace metaphysical questions about reality with discussions concerning a variety of languages and conceptual schemes. The adherents of that stance point out that a correctly understood ontological discussion does not concern the structure of reality but rather the terminology being used – that is, terms such as “exists” or “object.”¹

2.1 *Legitimacy of ontological disputes*

Ontological deflationism is contrasted with a standpoint treating ontological problems as legitimate. The representatives of this viewpoint claim that metaphysical questions about existence are soluble, e.g. Sider [21]. They treat ontology as an extension of science, i.e. they are adherents of its naturalization. Such philosophers refer to Quine’s criterion of ontological commitment, according to which “exists” is a semantical correlate of a variable – “To be is to be the value of a variable” [17, p.

189]. Quine thought that the extensional language of first-order predicate logic ought to deal with the canonical form of knowledge. In this kind of logic, there is no discussion about intensional expressions referring to the context of use such as time and place. In turn, we can avoid many ambiguities related to the use of expressions and focus on their denotation and extension. In Quine's view, by paraphrasing the best scientific theory into its canonical form, we reconstruct it ontologically, i.e. he provides formulations that bear ontological commitments:

(1) Some electrons are bonded to protons.

In canonical form:

(1') $\exists x \exists y [(E(x) \wedge P(y)) \wedge B(x, y)]$

If the statement is asserted on the ground of the best available scientific theory, it obliges us to accept the object, which is the semantical correlate of a variable bound with an existential quantifier. In the case of formula (1'), that would be electrons and protons.

If the term "exists" is interpreted as an existential quantifier, we avoid the distinction between "exist" and "being" [10, p. 16]. In that case, the term "exists" should be understood as univocal, i.e. within one conceptual apparatus, mathematical beings are uttered in the same way as ordinary objects. This feature distinguishes stances treating ontological disputes as legitimate from deflationary ones.

However, I will refer to the interpretation of Huw Price presenting Quine as a deflationist. It will serve to justify the main thesis of the article – that similar views can also be attributed to Ajdukiewicz.

3 *Price's interpretation of Quine's views on ontology*

I will divide the argumentation formulated by the Australian philosopher in the article *Quining Naturalism* [14] into three parts: (1) in the first one, Price refers to the characteristics of Quine's ontology formulated by Stephen Yablo [25]; (2) then he quotes Quine's metaphor of a boat, which was used to show philosophy as part of science; (3) as a consequence of (1) he refers to the indispensability argument.

Ad. 1) Price adopted Yablo's characteristics of Quine's ontology as a starting point for his argumentation. According to Price, the way of doing ontology proposed by Quine is the most accepted one.

He even outlines a program for their resolution: Look for the best overall theory – best by ordinary scientific standards or

principled extensions thereof – and then consider what has to exist for the theory to be true. [24, p. 230]

Price points out that the above-mentioned program can be deciphered in two ways – *ambitious* and *modest* [14, p. 382]. As to the first one, some philosophers claim that it is possible to legitimately formulate legitimate questions regarding the metaphysical structure of reality. They deal with issues concerning, for instance, “truth makers” [14, p. 383]. It is the metaphysical structure of reality that makes statements of the theory true.

As to the second interpretation, scientific findings play the leading role in ontological deliberations. It means that if a scientist formulates a scientific theory, a philosopher can solely indicate what this theory asserts as an existing thing. In other words, the program comes down to the statement that if scientists claim that there is a fact, then there must be the fact. Philosophy comes down to a description of this venture [14, p. 384].

Ad.2) In the second step of his argumentation, Price recollects the metaphor of a boat taken from Otto Neurath [14, p. 384]. It is a reminder that in Quine’s view philosophy is part of science:

Neurath has likened science to a boat which, if we are to rebuild it, we must rebuild plank by plank while staying afloat it. The philosopher and the scientist are in the same boat. [20, p. 3]

Therefore, the intention of the American philosopher was to prove that it is impossible to engage in meaningful philosophical deliberations outside that of science. Hence, Quine could direct the question of existence to an examination of the ontological commitments of scientific theories.

Ad. 3) In the third step, Price underlined that philosophers of “ambitious” provenance often refer to the indispensability argument as a consequence of the program proposed in (1). The argument was not developed directly by Quine himself, but by other philosophers like Hilary Putnam [16]. Price used another version of the argument formulated by Mark Colyvan [7]:

- (P1) We ought to have ontological commitment to all and only the entities that are indispensable to our best scientific theories.
- (P2) Mathematical entities are indispensable to our best scientific theories.

- (C) We ought to have ontological commitment to mathematical entities.

Philosophers of “ambitious” provenance maintain that if some mathematical entities are indispensable for a scientific theory, we must agree that they really *exist*. Therefore, the position of realism relative to some mathematical entities seems to be justified. According to Putnam, a different stance would be intellectually dishonest. However, the core of Price’s argumentation is to show that, on the ground of Quine’s philosophy, it is impossible to ask the metaphysical question: “*But are there REALLY mathematical entities?*” [14, p. 388]. Price draws attention to the fact that in Quine’s philosophy there is no appropriate transition between the acknowledgment that some mathematical entities are indispensable for scientific theory and the acknowledgment that mathematical entities really exist [14, p. 387]. It ought to be connected with point (2) that philosophy is to be part of science. Therefore, it is impossible to answer questions about the metaphysical structure of reality on the ground of a given conceptual apparatus, as some ambitious philosophers do to some ambitious philosophers.

The above argumentation indicates that, according to Quine’s views, if the existential question is asked in the form: “Does F exist?”, it must be treated by the standards of scientific practice [14, p. 338]. Questions asked in this manner should be answered by means of adequate methods of formal and empirical sciences. In other words, when we paraphrase a scientific theory to its canonical form, only the existential assumptions are indicated though deep and objective questions remain. Price singled out one more version of deflationism, according to which it is the representatives of empirical and formal sciences who answer these questions, not philosophers [14], [15]. Philosophy, again, focuses on the description of this venture.

To prove my thesis, according to which the above-mentioned views are close to those held by Ajdukiewicz, I will pose two questions. Answering them will illustrate that he is indeed a representative of deflationism *à la* Quine:

- (Q1) Does Ajdukiewiczian philosophy answer the following questions about the metaphysical structure of reality “Do mathematical entities really exist?” or “Do material objects really exist?”;
- (Q2) Does the whole ontology in Ajdukiewiczian philosophy deflate to acknowledging existential judgements formulated in some conceptual apparatus?

4 *Semantic epistemology*

Ajdukiewicz is the creator of a metaepistemological program – semantic epistemology – according to which conclusions of epistemological nature should be drawn from an examination of the semantic properties of language [24, p. 199].² It means that, in Ajdukiewicz’s view, the real subject of epistemology is language and its semantics. It is noteworthy that in the article *Epistemology and Semiotics* [4] he emphasizes that an epistemologist, who studies cognition from the perspective of language and wants to draw conclusions concerning reality, should do the following:

In epistemological inquiries one may, however - apart from the language of syntax - also use the object-language. In this case one has to obey the rules of that language; problems formulated in the object-language have then to be solved in accordance with the same rules (criteria) which are obeyed in purely substantive (e.g. scientific) inquiries in which no epistemological analysis is made.

A philosopher [...] must be a realist and join scientists in claiming that houses, trees, mountains, etc. exist, understanding this claim literally, as it is understood by scientists who use the object-language. [4, p. 184]

By *semantics*, Ajdukiewicz means a branch of logic in which we use a metalanguage embracing its object-language [4, p. 183]. He reckons that we can construct an adequate definition of truth and an adequate definition of denotation only in a rich language, in which we use the names of expressions of that language as well as expressions themselves in that language. Constructing adequate definitions will allow us to move on from statements about expressions to statements about objects [4, p. 183]. If the epistemologist uses a rich language in his studies:

[...] when using object-language sentences he has to obey the rules of that language; if those rules demand the acceptance of the sentence ‘horses exist’, then he must accept it. [4, p. 191]

In Ajdukiewicz’s view, the rules of use are meaning directives or so-called meaning rules. When these directives are disobeyed, the language is used improperly.³ Proper language use means respecting axiomatic, empirical, and deductive rules. There are expressions in language that must be categorically accepted, e.g. “Every square is a rectangle”. We

must accept such a sentence as true, which indicates an adequate reaction to a specific experience. As an example, we can verbally react to the irritation of a nerve, e.g. with a shout: “It hurts!”. The third of the above-mentioned rules specifies the relation between statements in a language, e.g. upon accepting the truth of the statement: “Thomas is older than John”, we cannot find the following statement false “John is younger than Thomas”. It means that deductive rules specify the implication relation between individual statements in a certain language. The rules mentioned above served Ajdukiewicz to raise classic philosophical questions. In order to carry out the project successfully, it is necessary to express philosophical questions adequately. Semantic paraphrase is the natural consequence of the so-understood program. In accordance with the Ajdukiewiczian project, traditional metaphysical issues should be treated as linguistic ones; therefore, he proposed paraphrasing them into epistemological ground, which he treated in a semantical respect, and then, on its basis, he recommended drawing conclusions about existence.

In order to present semantic paraphrase, I will refer to J. Jadacki’s article *Definition, Explication, and Paraphrase in the Ajdukiewiczian Tradition* [11]. Jadacki points out that while making a paraphrase it is necessary to employ two languages. However, neither of them should be more perfect in terms of [11, p. 151]:

- its vocabulary and intra-syntactic rules;
- its universe of discourse and semantic rules;
- its axioms and inferential (or deductive) rules.

The language is imperfect when it is possible to formulate insoluble problems or antinomies. If the language is imperfect, no *explicitly* of language rules can be given [11, p. 151]. Consequently, it is impossible to make a paraphrase from an imperfect language to a more perfect one. In the context of philosophical disputes: if classic philosophical problems are formulated in an imperfect language, they ought to be paraphrased into an imperfect language for which we can formulate some precise syntactical, semantical and inferential rules. Ajdukiewicz claims:

I have tried to show using a specific example that among the classical problems of philosophy there are some whose solution was made intractable by the imprecise conceptual apparatus used for their formulation; I have also tried to

show that the conceptual apparatus of contemporary logic makes the solutions of those problems simple. [3, p.153]

5 *Kazimierz Ajdukiewicz's views on ontology*

In my deliberations I will refer to the article *On the Notion Existence* [5].⁴ In this article, Ajdukiewicz presented a meticulous analysis of classical idealism. The analysis was carried out on the basis of the term “exists” in the ontology of Stanislaw Lesniewski.

Russell's definition is formulated in a manner which allows to apply the term “exists” only to symbols of classes, relations and descriptions, but its application to proper names is not admissible. This means that an expression consisting of the term “exists” and a proper name has, in Russell's system, no meaning at all. Lesniewski in whose calculus of names, called ontology, proper names belong to the same syntactical category as common names, defines the term “exists” in such a way that every sentence in which the term “exists” is conjoined with an arbitrary name, irrespective of whether this is a proper name, a class name, or a description, has a definite meaning. For this reason, as well as because Lesniewski's definition seems closer to everyday language and is better known in Poland, we shall base our considerations on his definition of “existence”. [5, p. 209]

However, Ajdukiewicz extended the language of Lesniewski's ontology. The language has been constructed in such a manner, that no existential judgements can be derived from it. Therefore, Ajdukiewicz enlarged this language with names for constant and with a substitution rule. The rule allows for substituting those names of constants with variables. Next, he introduced the empirical directive. The directive rule proves essential for Ajdukiewiczian argumentation against idealism.

Ajdukiewicz presented the deductive directive rule in the form of so-called existential generalization, which means that if we accept the truth of the statement “ x is F ”, we must accept the truth of the statement in the following form: “There is something that is F ”. As an example, we can take a statement like: “This table is round”. If we accept this statement as true, we must accept another statement: “Tables exist”. Accepting the truth of the sentence “Tables exist” is a result of the following empirical norms:

In uttering his object-language statements the author observes, among other things, empirical rules; he is prepared, for example, to assert the sentence 'this table is round' on the basis of what he perceives right now. He also accepts the basic postulates of ontology and consequently from the above sentence he is prepared to deduce the sentence "tables exist". The author accepts Lesniewski's definition "a exists means the same as: for some x, x is a". He also accepts Lesniewski's definition of an object, namely the definition "a is an object means the same as for some x, a is x". [5, p. 216]

Then Ajdukiewicz went on to argue against transcendental idealism. To begin with, he distinguished empirical language from intentional language. In the former, truths about the real world are expressed – in the latter, only truths in accordance with Greek mythology. Ajdukiewicz observed the similarity of the two languages. He pointed out that there are similar existential generalizations in both: in the intentional and in the empirical language. As an example let's take the statement "Zeus is an Olympian". Based on our knowledge of literature, we must assert this statement. Consequently, the sentence "Zeus exists" must also be asserted. However, in reality there is no such object as Zeus.

Asserting the statement "Zeus exists" on the basis of the statement "Zeus is an Olympian" results from the fact that the intentional language is characterized by the same grammatical structure as the empirical one. It has the same subject-verb structure including statements constructed in the form "x is F". Ajdukiewicz was aware of these difficulties; therefore, he distinguished objects of real existence and objects of intentional existence. His thinking was as follows:

[...] whereas our analysis is purely syntactical. We do not speak in it at all of real objects but only of certain expressions such as "ob_r" and "ex_r", and propose a certain manner of reading them, namely, as "real object", and "real existence". [5, p. 215]

This division allowed him to indicate the ontological commitments which can be the result of using different languages. In that respect the sentences "The table exists" and "Zeus exists" shall be considered to be sentences of two different languages. If the statement "The table exists" is accepted as true, it means that in the empirical language it is asserted that tables exist. If the sentence "Zeus exists" is accepted as true, it is asserted that Zeus exists in an intentional way. As a consequence of this

distinction, it may be concluded that ontological views ought to be relativized to the language in which they are expressed. As was mentioned before, this view of ontology was also adopted by Quine.

When Ajdukiewicz proposed the distinction between objects existing in reality and objects existing intentionally, he did not mean the metaphysical structure of reality. Yet, that was probably the ambition of some of classical idealism's adherents when they claimed their thesis that the world does not really exist. However, the Polish philosopher proposed a paraphrase of idealism into language. He noticed the similarity of intentional language with the one put forward by idealists.

This is, it seems, how idealists construct their language. For them the object–language sentence asserting, for example, that bodies exists means only that this sentence fulfils the empirical criteria. Consequently every object-language sentence about the world, if its meaning is specified in accordance with the definition which obtains in a language so constructed appears to be an expression referring to cognitive criteria [...]. Idealists have this characteristic feature of their language in mind when they assert their fundamental thesis: the word is only a correlate of cognitive criteria. [5, p. 215-16]

In that quote Ajdukiewicz points out that the existence question is understood by idealists as a correlate of cognitive criteria. According to Ajdukiewicz, the idealists who represent this opinion may have the following thesis attributed to them:

It consists of a part expressed in the empirical language which claims that the objects of experience do not exist in reality; and of a part expressed in the intentional language which claims that the objects of experience exist intentionally with respect to criteria. [5, p. 219]

The above-described thesis takes the form of a conjunction: (1) “the objects of experience do not exist in reality” and (2) “the objects of experience exist intentionally”. The adherent of idealism wanting to prove the correctness of his view has to demonstrate the truth of both (1) and (2). In Ajdukiewicz's view, this conjunction cannot be asserted. Asserting thesis (1) would mean violating the rules of language. As a consequence, Ajdukiewicz stresses that it is contradictory to use the language of experience and to deny that the objects of experience do

not exist in reality simultaneously. This results from the fact that thesis (1) is formulated in the language of experience, whereas thesis (2) is expressed in the intentional language. Therefore, idealists cannot claim that both theses (1) and (2) are true. Ajdukiewicz recapitulates his argument as follows:

Let us recapitulate once more the course of our argument. There are two alternatives: the metalinguistic statement that the sentence “tables exist” fulfils the criteria is either true or false. If it is false, the idealist asserts without any foundation the second, intentional part of his thesis according to which tables exist in the intentional meaning of “exist”. If, on the other hand, that metalinguistic statement is true, the idealist cannot assert the first part of his thesis in the language he speaks, i.e. when speaking English he cannot deny that tables exist. [5, p. 221]

For this reason, we should agree that the position of objective idealism is erroneous. Theses (1) and (2) cannot be accepted simultaneously. Ajdukiewicz presented the deductive directive rule in the form of so-called existential generalization, which means that if we accept the truth of the statement “ x is F ”, we must accept the truth of the statement in the form: “There is something that is F ”. It means that the discussion between the idealist and the realist will concern establishing the logical value of the statements formulated within a conceptual apparatus e.g. in chemistry. However, these discussions are not philosophical but scientific. To illustrate the point, I will analyze the statement “Water consists of hydrogen and oxygen”. By applying the aforementioned argumentation, the realists will assert the statement, and the idealist will deny it.

After presenting the argumentation of the Polish philosopher I will answer the two questions raised earlier: (Q1) Can the following questions about the metaphysical structure of reality be answered on the ground of Ajdukiewiczian philosophy: “Do mathematical entities really exist?” or “Do material objects really exist?”; and (Q2) Does the whole ontology in the Ajdukiewiczian philosophy deflate to acknowledging existential judgements formulated in a given conceptual apparatus?

In the above reconstruction I showed that that Ajdukiewicz paraphrased the classical dispute about realism into a matter concerning language. In that case he brought classical idealism into a more precise language, in which there is clear-cut vocabulary, intra-syntactic rules,

a more precise universe of discourse and semantic rules, and where axioms and inferential (or deductive rules) are used. On this language's ground it is impossible to ask if the categories of objects really exist in a metaphysical sense. That means that the Polish philosopher is not interested in the problem of the existence of abstract or material objects. Moreover, he thinks that ontological views ought to be relativized to the language in which they are expressed. In this way he proved that ontology can be brought down to asserting an existential statement formulated in some conceptual apparatus. Hence, questions (Q1) and (Q2) should be answered affirmatively. It means that Ajdukiewicz's views on ontology coincide with Quine's position. In which case, his ontology should be regarded as deflationist *à la* Quine.

Ajdukiewicz's inquiries are in particular interesting, because – like Quine – he approached the question of existence from a logical point of view. Whereas the American philosopher redefined the existence question to solve difficulties connected with the use of statements with the names of non-existent objects, and also to highlight the ontological commitment of scientific theories, the Polish philosopher used logical terminology to prove the internal inconsistency of idealism.⁵

6 *Ajdukiewicz and Quine: similarities and differences*

However, it is noteworthy that Quine was a representative of methodological naturalism, according to which “the recognition that it is within science itself, and not in some prior philosophy, that reality is to be identified and described” [18, p. 246]. So-understood, naturalism is the result of accepting extreme empiricism – the view that reliable knowledge about the universe can be acquired through direct experience. As a consequence, he had to reject the possibility of attaining a priori knowledge in philosophy. Therefore, he was not an adherent of so-called first philosophy, which claims that knowledge about the structure of reality can be acquired through philosophical inquiries and which seeks justification for the basis of knowledge. In his philosophy there is no “cosmic exile”.

The philosopher's task differs from the others', then, in detail; but in no such drastic way as those suppose who imagine for the philosopher a vantage point outside the conceptual scheme that he takes in charge. There is no such cosmic exile. He cannot study and revise the fundamental conceptual scheme of science and common sense without having

some conceptual scheme, whether the same or another no less in need of philosophical scrutiny, in which to work. He can scrutinize and improve the system from within, appealing to coherence and simplicity; but this is the theoretician's method generally. [20, p. 254]

Considering that one does not have "cosmic exile" at one's disposal and reliable knowledge being based on scientific knowledge, it may be stated that this kind of knowledge is acquired on the basis of a specific methodology, which is characteristic for natural and formal science. Quine, because of his methodological naturalism and extreme empiricism, did not take up classical philosophical issues. For this reason, he could not paraphrase the thesis of transcendental idealism, as Ajdukiewicz could, but only pointed out the ontological commitments of scientific theories.

Ajdukiewicz, despite the similarity of his views on ontology to Quine's, did not present naturalism *à la* Quine in his philosophy. Ajdukiewicz was a philosopher of moderate naturalism, i.e. he claimed that traditional metaphysical and epistemological problems are soluble. In contrast to Quine, he combined a moderate approach to philosophical issues with deflationism in the existence question. According to him, philosophy done in a reliable way is not a part of science, as Quine understood it. Ajdukiewicz claimed that the traditional problems of philosophy ought to be considered from a semantic perspective, and on that basis we can talk about conclusions concerning cognition and existence. In other words, traditional philosophical problems expressed in metaphysical and epistemological language should be paraphrased into a language with explicitly formulated syntactic, semantical and inferential rules; it is then possible to get a clear-cut solution or to point out their philosophical consequences.

I have tried to show using a specific example that among the classical problems of philosophy there are some whose solution was made intractable by the imprecise conceptual apparatus used for their formulation; I have also tried to show that the conceptual apparatus of contemporary logic makes the solutions of those problems simple. [3, p. 153]

Despite the incompatibility in handling classical problems of philosophy stemming from two different programs of philosophy – methodological naturalism and semantic epistemology – both philosophers endorse using a paraphrase for philosophical issues.

In the Anglo-Saxon literature, paraphrase is usually associated with Quine's logical paraphrase.⁶ The American philosopher used it to indicate the existential assumptions of scientific theories. The paraphrase used by Ajdukiewicz is semantic as it serves to bring classic philosophical questions into the domain of language. In that case not only logical paraphrase but also semantic paraphrase is to be distinguished. Yet both above-mentioned philosophers can be attributed views which prove that they are ontological deflationists. It means that applying logical or semantic paraphrase to ontological problems is tantamount to a deflationary view of ontology.

7 Conclusion

The subject of my comparative analysis is the article *On the Notion Existence* which was published in 1951. What makes this publication particularly interesting is the fact that contemporary metaontological discussions refer to the discussion carried out between Quine and Carnap in the 1940s and 1950s. As I noted, Quine and Carnap's views on ontology can be described as deflationary. Given the result of the analyses presented above, it also seems that Ajdukiewicz, a prominent figure of the Lvov-Warsaw School, can be included in this circle. What both philosophers have in common is their application of the paraphrase method.

Notes

- 1 It is worth noting that there is also the viewpoint espoused by Amie Thomasson, who indicates that such an approach is the result of what she calls an *unfortunate turn* [23, p. 56–63]. She presents the stance of easy ontology, according to which ontological questions are to be answered on the basis of language and empirical experience.
- 2 Ajdukiewicz outlined semantic epistemology in the article A Semantical Version of the Problem of Transcendental Idealism [3].
- 3 Ajdukiewicz wrote about so-called meaning rules in his articles On the Meaning of Expressions [1] and Language and Meaning [2].
- 4 In the legacy of Ajdukiewicz one can find numerous uses of semantic paraphrase. He applied it in polemics with classical idealism e.g. [3], [4].
- 5 It is worth noting that Quine was familiar with Ajdukiewicz's article. In his review, he criticised the notion of "existence" taken from Lesniewski but agreed with Ajdukiewicz as to his criticism of idealism [19, p. 141–142].

- 6 Recently an increased interest in paraphrasing can be seen. Notable papers in that context include those by John A. Keller [12] and [13] or the text by Tatjana von Solodkoff [22].

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Artur Kosecki
Department of Philosophy
University of Szczecin
Krakowska 71-79
71-017 Szczecin, Poland
<koseckiartur@gmail.com>

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