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Francesco Coniglione, Roberto Poli, and Jan Woleński



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Jacek J. Jadacki

KAZIMIERZ TWARDOWSKI'S DESCRIPTIVE SEMIOTICS

Introduction

Kazimierz Twardowski's contribution to semiotics has been fourfold: as a critic of others conception, a constructor of his own analyses, distinctions¹, and theses, a precursor of new ideas and methods, and an inspirer of posterior polemics.

Twardowski has cogently criticised psychologism and intuitionism in the theory of semiotics, and of science in general. This criticism concerns: the allogenic conception of judgement, the relativistic — as well as coherential, transcendental, and pragmatic — conception of truth, and parallelism and symbolomania in the theory of language. It was thanks to Twardowski that Jan Łukasiewicz became an antipsychologist. As a consequence of this criticism of relativism, the classical theory of truth ran current in Poland, and became the background to Alfred Tarski's semiotics. Moreover, in spite of his anti-symbolomania, as early as 1898 Twardowski delivered lectures on the latest results in mathematical logic. It is worth noticing that those were only the numerous polemics with Bernard Bolzano in Twardowski's writing that attracted people's attention to the author of *Wissenschaftslehre*.

Of equal value is Twardowski's analysis of acts (isolating products), presentations (isolating contents) and judgements (isolating contextures). The way Twardowski distinguished contents from objects of presentations was assimilated and supported by Alexius Meinong. The criticism of idealism founded on this distinction was continued, among others, by Kazimierz Ajdukiewicz.

Twardowski's distinctions in the area of the semiotical functions of badges (being the expression of something *versus* expressing), of the representative functions of lingual sings (among others, contrasting objective and subjective functions), and of the ascriptive functions of adjective (filling up by abolitive and confirmative functions), are very useful. Twardowski's thesis that there are no objectless presentations, as well as empty names, is deeply justified. One can say the same about the theses that every presentation — thus general ones too — has exactly one object; that objects of intentional acts can be entities having any existential status, e.g. existing entities; that probability is a property of presentations of judgements, and not of judgements being given. This latter view was accepted afterwards, among others, by Jan Łukasiewicz.

Twardowski's idea of the act-product relation - as the relation of effectiveness other than causal connection - later bore fruit thanks to Tadeusz Kotarbiński's praxiology. The idea of analyzing objects as correlatives of psychical acts, i.e. existentially neutral entities - also presented in Alexius Meinong's ontology and Edmund Husserl's phenomenology - was revived later on in Saul Kripke's semantics of possible worlds. The idea of images as possible underlying concepts admitted of extending normal defining outside of the classical formula (per genus)². The ideas of concepts as presentations containing in their content (among others) presented judgements - can be regarded as a promise for the reduction of concepts to propositional functions in Russellian philosophy. The idea of judgements as specific psychical acts harmonizes with Bertrand Russell's conception of logic as founded finally in the theory of sentences. The idea of presented judgements as presentations of given judgements became transformed into the Ingardenian conception of *quasi*-propositions. The idea of works of arts as products of artist's acts different from the material of these acts - was to be developed in detail by Roman Ingarden in his intentional aesthetics.

It is in Twardowski that we should look for archetypes of Tadeusz Czeżowski's method of analytical description, Tadeusz Kotarbiński's method of creative interpretation (i.e. the logical – instead of purely philological – reconstruction of classical philosophical texts), Kazimierz Ajdukiewicz's method of semantic paraphrases. We can find the application of the first method in Twardowski's work *O istocie pojęć* (On the essence of notions); the application of the last one can be found in oppositing "being the object of true affirmative judgement" to "existence", as well as in the analysis of the word "nothing".

The polemics originating in Twardowski's views were carried on especially in the Lvov-Warsaw School. The most important controversies concerned: empty presentations (*resp.* names), objects of general conceptions, the reducibility of all judgements to existential judgements, the nature of sense, criteria of truth, and the boundaries of applicability of formal methods. Twardowski must be recognized as the classic founder of Polish semiotics³. The significance of Twardowski lies in what he said, and not only in how he said it.

This is the source of the legitimacy of the enterprise taken up below.

Badges and Testimonies of Spiritual Life

If the act A_1 , producing the phenomenon R_1 , is a psychical act, and the act A_2 , producing the phenomenon R_2 , is a physical entity, and moreover the act A_1 bears upon the act A_2 (i.e. A_1 is a partial cause of A_2) thanks to which the act A_2 becomes a physico-psychical act, then the act A_2 is an external d i a g n o s t i c of the act A_1 . (For instance⁴, groaning is a diagnostic of suffering a pain; drawing is a diagnostic of imagining a certain design; and composing — sometimes — a diagnostic of a composer's feeling pleasure or annoyance.) In the situation described above the product R_2 is an external expression of the product R_1 : R_1 expresses itself in a groan; an image — in a design; an affection — sometimes in a musical composition.)

If the act A_4 , producing the phenomenon R_4 , is an imitation of the act A_2 , i.e. of the act A_4 was made with the intention of imitating the product R_2 of the act A_2 (e.g. a theatrical act as a product of presented feelings), and moreover the product R_4 is similar⁵ to the product of R_2 or is the very same as R_2 , then R_4 is a substitute (or an artefact) of R_2 : R_4 substitutes R_2 .

If, moreover, the act A_3 , producing the phenomenon R_3 , is a psychical act, and the act A_2 or its product R_2 can bear upon the act A_3 , whereas the product R_3 (or its substitute) is similar to the product R_1 or is the very same as R_1 , then the act A_2 is an index of the act $(A_1 \text{ and}) A_3$, whereas the product R_2 is a sign of the product $(R_1 \text{ and}) R_3$: R_2 expresses R_1 and R_3 (R_1 and R_3 exist – although not actually, but only potentially – in R_2).

In general, any phenomenon is a sign of another phenomenon, if in virtue of stating the occurence of the former phenomenon — seeing it, hearing it — one is entitled to infer the occurence of the latter phenomenon, or provoked to realize it. In the former case this sign is a factual sign (e.g. a smoke seen from afar — a sign of a fire; a pale complexion — a sign of anaemia; a strong rumble on the ground — a sign of the fact that troops are marching); in the latter case — it is a purposeful sign (e.g. a signal for an engine driver). According to the kind of a connexion between the sings and entities referred to, the set of signs can be divided into s y m p t o m s (e.g. a speach with regard to thoughts) and s y m b o l s (e.g. a note with regard to a sound). In the case of symptoms what we have to do with is a causal connexion (here: with an involuntary association consistent with the law of association). In the case of symbols a conventional connexion comes into play (with an association on the grounds of a convention or a similarity).

If the product R_2 (or its subsitute R_4) is a permanent product, whereas the products R_1 and R_3 are impermanent products, then R_2 (or R_4) is a f i x a t i v e of R_1 and R_3 : R_2 (and R_1) fix R_1 and R_2 , which are turned into r e l i c t s (i.e. petrefacts).

Expressions and signs as well as diagnostics and indices – impermanent and unfixed – are b a d g e s of spiritual life. Expressions and fixed signs are its testimonies (or documents).

Badges and testimonies are the only way of getting to know the spiritual life of another person. The reconstruction of a psyche on their ground rests on an analogy (with one's spiritual life). Perceiving an other's psychical facts is impossible.

Signs of Language

Spiritual products can be expressed with the aid of various signs, e.g. acoustic articulation, miming, gesticulation and signalization. The most excellent signs of spiritual products are signs of language⁶. The advantage of lingual signs over the other aids to expressing thought consists in five things. Firstly, they save time. Secondly, they economize a user's effort. Thirdly, one can use them at a distance. Fourthly, one can fix them with the aid of writing and printing. Fifthly, one can link them together in different ways, and therefore they are able to render the most complex thoughts and the smallest differences among them.

Language – as a system of signs – is a double instrument. Originally, it is an aid to communicating; secondarily, it is an aid to thinking; namely, it enables symbolic and hemisymbolic concepts to be created, and thanks to this role it enables a great simplification of mental work. This simplification creates, however, two menaces: the menace of pragmatophobia, i.e. losing the ability to return to indirect thinking, and the menace of fanaticism, i.e. losing the ability to consider things objectively.

Language is a double instrument thanks to the fact that particular lingual signs fulfil double representative function (i.e. functions of expressing) with regard to spiritual acts (originally, to emotional and volitional acts; secondarily, to intellectual acts). These are objective and subjective functions. The fact that lingual signs fulfil representative functions does not mean, however, that they fulfil substitutive functions. They are quite different and independent functions. (For instance, an ambassador is a representative of his country, but he is not its substitute. On the other hand, a vice-chancellor is the substitute of a chancellor, but he is not a representative of the latter).

Objective functions — i.e. significative and denotative ones — consist, respectively, in the fact that a lingual signs signifies the product of represented spiritual acts, and denotes the object of these acts. Subjective functions — i.e. in dicative and evocative ones — consist, respectively, in the fact that a lingual sign indicates the act of a sender, and evokes the act of a receiver; the products of the very acts are signified by this sign. Thanks to the indicative function of (natural) lingual signs, they can indicate, among others, emotional moments, marked, moreover, not only in the very selection of the vocabulary (e.g. the pair of words: "a nag" — "a horse", where the first element is usually marked pejoratively). This possibility of indicating emotional moments creates, besides, certain difficulties in thinking. On the other hand, it is thanks to the evocative function that lingual signs can be understood at all.

The word "signify" as well as the word "denote" referred originally (in any case, in Latin) to a physical act of providing something with a distinctive characteristic. Apart from (let us say) the m a r c a t i v e sense and the s i g n i f i c a t i v e (psychological) sense, the word "signify" is sometimes used in the a x i o l o g i c a l sense, as a synonym of the word "be valid" ("have value"). The l o g i c a l sense of lingual sign (e.g. a name, in particular) is a general entity having all (and only) those properties which are common to the particular individual products of a mental act (e.g. a presentation) represented by this sign.

Lingual signs are usually polysemic. One kind of a sign can have more than one logical sense. (For instance, "my portrait" means "the portrait which I made", "the portrait which belongs to me", or "the portrait which presents my person". The word "is" means "equals", "belongs", or "has a property" – as in the contexts: "Two and two is four", "A dog is a vertebrate" and "A circle is round". "Painted" as a determination of a landscape can mean "being a painting", or "being the model for a painting"). Moreover, some signs have an indefinite number of logical senses. Such indefinitely polysemic signs are indexical expressions: their sense varies with the person using them or the place or date concerned. (For instance, the word "now" means "in the moment of pronoucing". The word "here" means "in the place of pronoucing". The word "this" means "being here and now").

Language is distinguished, moreover, by its multinominality. Many kinds of lingual expressions correspond to one kind of thought.

Polysemy and the multinominality reflect the d i s c r e p a n c y between speaking and thinking, this being a point against their parallelism. The fact that it is possible to speak unthinkingly (*psittacism*) and to think wordlessly (also constantly – like mutes) falsifies, of course, the hypothesis about the identity of speaking and thinking. The double connexion occurs, however, between speaking and thinking. Firstly, signs of language – as symbols of respective thoughts – remain in a causal relation with the latter. Secondly, in thinking – especially more abstractive – what we have to do with are many hemisymbolic and symbolic concepts. For that reason, apart from this discrepancy the "woolly", obscure style of language – of philosophical literature, anyway – can be regarded as the diagnostic of woolly thinking.

The set of lingual signs consists of two subsets: of sentences, and of sentential parts. The latter can be, moreover, "p r e s e n t a t i v e s", i.e. categorematic signs, or c o p u l a t i o n s, i.e. syncategorematic signs. Categorematic signs perform independently representative functions with respect to presentations. Syncategorematic signs are only cosignifying. Names are typical categoremata, whereas conjunctions are typical syncategoremata.

Names

Among the parts of speech (conceived in terms of traditional grammar) the role of names is generally that of proper names (e.g. "Lvov", "Stanislaus Augustus", "Sophroniscos") and apellative nouns (e.g. "father", "soul", "difficulty"), pronouns (e.g. "he", "we", "something"), adjectives (e.g. "white", "gloomy", "sunny"), numerals (e.g. "two", "tenth", "fifty seven and a half") and verba (e.g. "run", "learn", "terminate"). Our focus is, however, on these parts which constitute a grammatical subject (excepting predicativeless sentences), a predicative (excepting subjectless sentences) or a subject complement in syntactically simple clauses. Names are not only single nouns, but also nominal phrases, i.e. combinations of a noun with another noun (e.g. "an eye of a man"), with a demonstrative pronoun (e.g. "this man"), with an indefinite pronoun (e.g. "any man"), with a numeral (e.g. "the second son"), with a propositional phrase (e.g. "the highest mountain in Europe") or with a subordinate sentence (e.g. "the son who dishonours his father"). It also concerns adjectives and verbal phrases.

There are no subjectless presentations, and so there are no empty names. Every name denotes a certain entity - and only one entity (even if it is a complex noun). On the other hand denoting a certain entity does not imply the existence of this object.

The names can represents either images, or concepts. In the first usage every name represents a certain image, but the great majority of names represent general concepts. A general name denotes the object of a certain general concept, and at the same time, designates all the entities falling under this general entity. The very names can be used to denote general entities, as well as designate individual entities which is an additional source of polysemy.

Various kinds of names can denote entities of any ontical category. Only verbal names exclusively denote states - and acts, in particular - or their products.

Apart from names, "presentatives" also contain quasi-nominal phrases: some sentences (in the grammatical sense of the word) which are, in particular, dependent adjunctive sentence (e.g. "that tomorrow there will be fine weather"). These sentences represent exclusively presentations of judgements.

Sayings

Sentences are, basically, sings (expressions or sequences of expressions) representing judgements, orders — wishes, requests, curses (e.g. "Read!", "May the weather be fine tomorrow", "I want you to read") — and questions.

Sentences representing orders and questions, also represent (usually) certain judgements — about the object denoted. In particular, the interrogative sentence, meant to evoke an answer — i.e. prompting to give judgements about a certain object or to perform certain acts — also expresses one or more judgements about this objects; these judgements are presuppositions (*data*) of a question. A question is logical, if its presupposition is not a false judgement; otherwise a question is illogical (e.g. "Is the verb 'field' masculine or feminine?").

With respect to the kind of answers the set of interrogative sentences breaks up, on the one hand, into simple questions requiring answers in the form of one judgement (e.g. "When did Casimir the Great die?"), and complex questions requiring answers in the form of a few jedgements (e.g. "What does a bear look like?"). On the other hand, the set of interrogative sentences breaks up into questions requiring a decision (e.g. "Did the Reformation have any supporters in Poland?") and questions requiring a completion (e.g. "How did the union of Poland and Lithuania come about?"). Answers themselves — which express, of course, judgements — can be appreciated according to their accuracy. An accurate answer strictly contains, what a given question is about (e.g. the answer "No, it is not" to the question "Is the distance between the Earth and the Sun always the same?"). Otherwise it is an inaccurate answer, even if it expresses a true judgement (e.g. the answer "The Earth revolves round the Sun" — to questions similar to the question in the previous example).

Sentences representing exclusively judgements are sayings. (Not every saying can be characterized as "a sentence" in the grammatical sense of the word. For instance, the word "Fire!" sometimes represents the judgement that something is on fire.) A saying signifies a contexture of a certain judgement (i.e. an existence), indicates that a judgement has been made by a speaker, and evokes making — or only presenting (i.e. understanding) — a judgement by a listener. Particular representative functions are either performed separately by individual elements of saying, or by a given saying as a whole.

With regard to their sense sayings can be simple (e.g. "God exists") or complex (e.g. "Lvov and Cracow are Polish towns"), i.e. they can represent one or more than one judgement respectively. The simplicity and complexity of sayings ought to be distinguished from the simplicity and complexity of judgements.

Simple sayings are relational or irrelational – depending on whether they represent judgement having a relation as their object (stating only the existence of this relation – and not of the arguments of it), or an entity of another kind. Relational sayings contain some categorical sayings (e.g. "Roses are flowers", "Two and two is four", "All the radii of a circle are equal") and potential-hypothetical sayings, i.e. belonging to *casus potentialis* (e.g. "If there is still a resource, it is necessary to seize upon it", "He who sows the wind, reaps the whirlwind", "A man must be able to content himself with the little nothing of life, in order to be happy"). Irrelational sayings contain existential sayings with explicitly expressed contextures (e.g. "Revenants do not exists", "Conferences take place", "There is the risk") and impersonal sayings (*impersonalia*) with contextures which are not explicitly expressed (e.g. "Fire!", "It dawns", "Cloudiness").

Now, complex sayings can be existential-relational, real-hypothetical or irreal-hypothetical (casus realis and casus irrealis), disjunctive and conjunctive. Existentional-relational sayings can be of two kinds. Firstly, we have categorical sayings (e.g. "I live at number 10 Golębia Street in Lvov"), which express allowance for the existence of a certain relation (in our example: living) and of the arguments of this relation (in our example: I and number 10 Golębia Street in Lvov). Secondly, we have restrictive sayings (e.g. "Only human being have the ability to speak"), which express judgements allowing the existence of a certain relation (here: having) and of its arguments (here: human beings and the ability to speak), and at the same time denying certain entities (here: being other than human beings with nonetheless have the mentioned ability).

Real-hypothetical sayings (e.g. "Since you want to answer, I shall ask you a question") express judgements allowing both the sentential elements of sayings (here: that you want to answer, and that I shall ask you a question) and that the object stated in the first element (here: the fact that you want to answer) joins with the object stated in the second element (here: the fact that I shall ask you a question). Irrealhypothetical sayings (e.g. "If it was Sunday today, there would not be any lectures") express judgements denying both the sentential elements of sayings, and allowing, that the object stated in the first element joins with the object stated in the second element. Disjunctive sayings (e.g. "The world is ruled by God or by blind chance") express judgements that the judgements presented by the sentential elements of sayings are probable. that it is impossible for any of them to be true, and that the simultaneous existence sayings (e.g. "The feelings are circulating in the soul, glowing, firing" - from Mickiewicz) express judgements expressed by particular sentential elements of a given sequence.

Definition-formulae of the structure "A is B" (e.g. "The state is a public society, which contains a population settled in a certain territory as a community of rulers and ruled peoples") are a special kind of sayings. These sayings represent *de facto* judgements, that "A" denotes B (in particular, that "state" denotes a certain object, the presentation of which was constructed in a given way); they do not represent the judgement that A is B (in particular, our definition does not represent any judgement about a state).

Truthfulness, evidence, and probability - and their opposites - can be ascribed to sayings only indirectly (metaphorically): with respect to the judgements represented. Thus, in particular, a given saying is evident, when if somebody understands it, then he knows at once that the judgement represented by this saying is true. On the other hand, the distinction between absolute and relative truthfulness - which is not admissible in the area of judgements - is admissible here. Absolute truthfulness characterizes, namely, a saying which represents exclusively true judgements. Only complete sayings can be true in this sense. A saying which represents sometimes true and sometimes false judgements can be defined as relatively true. Elliptical sayings (e.g. "It rains", "Cold baths are healthy", "Flats in Lvov are expensive") belong to such relatively true sayings. (Exemplary complete analogues of the elliptical sayings given above are the following sentences: "At noon on the first of March, 1900, according to the Gregorian calendar, it rains in the region of Castel Mountain in Lvov", "Cold baths are sometimes healthy", "Flats in Lvov are expensive for the most part")⁷.

Analogously, unlike the area of judgements, with reference to sayings, there is room for speaking about synonymity (equipolency). Two sayings are, namely, synonymous, if they represent equal judgements.

Copulations

A special place among copulations is occupied by qualifications.

Qualifications are those nouns, pronouns, adjectives, adverbs, and numerals – and phrases equivalent to them – which occur in attributive contexts (e.g. nouns like "a speed of movement", the father of Socrates", "a gable end of a house"; pronouns like "this man", "any man", "no man"). In predicative contexts they are categoremata.

A qualification – together with the name next to which it stands – (co)represents a presentation of the judgement referring to the object denoted by a qualified expression. Depending on the object of this judgement the ascritpive function performed by the qualification on account of the qualified expression, consists in determination, abolition, confirmation, or modification (i.e. abolition and determination satisfied at the same time). The a b o l i t i v e and d e t e r m i n a t i v e functions consist in changing a given sense: respectively, in enriching (e.g. "a good man") or derogating (e.g. "a sham form"). The c o n - f i r m a t i v e function consists in intensifying or restoring certain components of a sense (e.g. "the real fact"). This three functions are simple functions. On the other hand, the m o d i f i c a t i v e function is a complex one. It consists in enriching and derogating a sense at the same time (e.g. "a former minister").

Qualifications – even in attributive contexts (e.g. "a bad man") – are not, however, syncategoremata proper, because, they not only (co)present a certain judgement (here: the judgement that a man is bad), but also independently represent auxiliary presentations (here: the image of something bad), evoking the presentation of the proper object of a given complex expression as a whole (here: the image of a bad man),

but the content of these auxiliary presentations does not depend on the content of the underlying presentation (here: on the content of the image of a man), creating the sense of the qualified expression.

In the fulfilment of the determinative, abolitive, confirmative, and modificative function in relation to names by complex qualifications – pronouns (e.g. "which") and prepositions (e.g. "as", "as far as", "without") take part.

The pronouns "which" or "who" (in the contexts: "a man who makes pictures", "a body which is chemically indecomposables", "a book which is yellow") indicate that the presentation of the named entity should be in relation to the underlying image — enriched or derogated (or, in the end, modified) by the attribute mentioned in the presented judgement belonging to this presentation. These pronouns also fulfil the modificative function in relation to the preceding sentence, what makes this sentence become the expression of a judgement presented, but not made. The word "that" has a similar function.

The prepositions "as" (in the context "Salzburg as the birthplace of Mozart") and "insofar as" (in the context "American monkeys, insofar as they are all caudate") signalize to a hearer that he should present the named objects by complementing the attributes mentioned. The preposition "without" (in the context "a country without mountains") signalizes, that the proper presentation (here: the presentation of a low contry) should be preceded by a certain auxiliary presentation (here: the presentations of mountains).

Copulations proper are formed by conjunctions, which can occur in nominal (e.g. "non-") or propositional contexts (e.g. "not", "or", "if").

The conjuction "non-" in a nominal context (e.g. "non-Greek") has a specific modificative function with respect to its nominal argument: the infinitative function. It changes the sense of this argument in such a way, that the sense of all the context becomes equal to the sense of the generic name (genus proximum) superior to this member (here to the name "man"), enriching the sense by the presentation of the judgement denying the object of this name specific attributes of the object of the negated name (here: the name "Greek"). The infinitation rule is binding here. It permits adding "non-" only to those names which are subordinated with respect to a certain name. The expression "non-entity" violates this rule, because it is impossible to find a genus for the word "entity". Thus "nonentity" is nonsense. If we recognize the noun "nothing" as synonymous with the expression "non-entity", we should recognize "nothing" as nonsense. As a matter of fact "nothing" is the syncategorematic element of negation of an existential quantifier. Thus the phrase "Nothing is eternal" is synonymous with "There is not an entity, which is eternal".

The conjunction "or" performs the modificative function with respect to sentences which are connected by it. These sentences represent in such a context judgement not made but only presented. And in a disjunctive sentence, as a whole, the probability of these presented judgements is expressed. The degree of this probability here is inversely proportional to the number of main elements of the whole.

A similar modificative function - in some contexts, at least - is performed by the conjunction "if" to sentence-elements (here: to antecedents and to consequents). This kind of context expresses as a whole the judgement that the logical argument-consequence relation occurs between the presented judgments. The problem here concerns formal truths. They are sometimes contrasted with material truths. But if these "truths" are true, their truthfulness is identical with the truthfulness of every materially true judgment.

Understanding

The person O understands the name N, denoting the object P, if O, hearing or reading N, evokes in himself – or at least can do so – the presentation of P. The person O understands the sentence – and the saying, in particular – Z, denoting the judgement S, if O, hearing or reading Z, evokes in himself – or at least can do so – the presentation of S.

We do not understand words of an unknown language, just because they do not evoke in us either an image, or a concept.

Conclusion

Kazimierz Twardowski's descriptive semiotics is an abstract theory of lingual phemomena, i.e. a system of definitions and their consequences, a system built with the method of logical analysis, preceded by an inventory and supplemented with a classification of these phenomena. This theory consists in the psycho-physical conception of signs, the functional conception of expression, the noematic conception of sense, and the discrepant conception of language.

University of Warsaw Institute of Philosophy Warsaw Poland

NOTES

¹ Twardowski's distinctions were very critically appreciated by Edmund Husserl. According to him radical progress was possible here only thanks to Husserlian phenomenology.

² I develop this subject in the *Appendix* to my paper "The metaphysical basis of Kazimierz Twardowski's descriptive semiotics" (in press).

³ I allow myself to refer my Readers to the following works concerning Polish semiotic, which I have published in English: (1) "Lvov-Warsaw School" (and other items, concerning especially L. Chwistek, S. Leśniewski, J. Łukasiewicz, and K. Twardowski) in *Encyclopedic Dictionary of Semiotics*, Thomas A. Sebeok (ed.), Mouton de Gruyter, Berlin - New York - Amsterdam, Vol. 1, 1985, p. 478-80 etc.; (2) "On Leon Chwistek's semiotic views", in *Sign, system and function*, Jerzy Pelc *et al.* (ed.), Mouton Publishers, Berlin - New York - Amsterdam, 1984, p. 77-87; (3) "On Roman Ingarden's semiotic views. A contribution to the history of Polish semiotics", *Analecta Husserliana*, vol. XXVII (1988), p. 523-40; (4) "On the sources of contemporary Polish logic", *Dialectics and Humanism* 4 (1980), p. 163-83.

⁴ All examples (here and below) come from Kazimierz Twardowski.

⁵ We must notice, however, that, for instance, a cry can express someone's terror without evoking the same effect in hearers. It is enough that it can evoke the presentation of this fact.

⁶ It is very often stressed by historians of philosophy that particular ideas of Twardowski are closely connected with Brentanian conceptions. It is worth saying that in the theory of language and its semiotic functions Twardowski was the inheritor neither of the "early", nor of "late" Franz Brentano.

⁷ In a similar manner we can treat the sayings of which ethical relativists make use. The elliptical sentences "Crippled children should be killed" gives, after unfolding, a complete sentence of the form: "A society being in the conditions a, b, c, ... should kill children with properties p, q, r, ...

REFERENCES

1. Works of Kazimierz Twardowski

Abbreviations:

RAF - Rozprawy i artykuły filozoficzne. Lwów 1927, Książnica-Atlas, p. XVI, 448. WPF - Wybrane pisma filozoficzne. Warszawa 1965, PWN, p. XXXVI, 396

- (1894) On the content and object of presentations. A psychological investigation. Translated and with an introduction by R. Grossmann (The Hague, Martinus Nijhoff), p: XXXVI, 106.
- (1897) "Psychologia wobec fizjologii i filozofii" (Psychology against physiology and philosophy), WPF, pp. 92-113.

- (1898) (Item concerning the philosophy), in Encyklopedia Macierzy Polskiej. Zbiór wiadomości z wszystkich gałęzi wiedzy. T. I i II (Lwów, Macierz Polska), p: XII, 788 + IV, 1052.
- (1898a) "Wyobrażenia i pojęcia" (Images and notions), WPF, pp. 114-97.
- (1899) "O pojęciu poczytalności karnej w świetle psychologii. Tezy odczytu" (On the concept of penal sanity in the light of psychology. Theses of the paper), RAF, pp. 446-7.
- (1900) "Myśl i mowa. Program wykładu" (Thought and speech. The project of the paper), RAF, pp. 435-7.
- (1900a) "O tak zwanych prawdach względnych" (On so called relative truths), WPF, pp. 315-36.
- (1901) Zasadnicze pojęcia dydaktyki i logiki do użytku w seminariach nauczycielskich i w nauce prywatnej (Main concepts of didactics and logic for the use of teachers training colleges and in private education) (Lwów, Towarzystwo Pedagogiczne), p: 224, XVI.
- (1901a) "O tak zwanych prawdach względnych" (see 1900a). Autoreferat (Self-report), RAF, pp. 94-5.
- (1906) "Wykłady z etyki. I. Główne kierunki etyki naukowej" (Lectures on ethics. I. Main trends of the scientific ethics), *Etyka* 13 (1974), pp. 197-226. II. "O sceptycyzmie etycznym" (II. On the ethical skepticism), *Etyka* 9 (1971), pp. 171-222.
- (1910) "Myśl i mowa" (see 1900). Streszczenie odczytu (Summary of the paper), RAF, pp. 242-425.
- (1910a) "O metodzie psychologii" (On the method of psychology), WPF, pp. 205-16.
- (1911) "O czynnościach i wytworach" (On acts and products), WPF, pp. 217-40.
- (1911a) Wykłady z logiki (Lectures on logic) (Lwów, mimeographed edition), p: 292.
- (1913) "O psychologii, jej przedmiocie, zadaniach, metodzie, stosunku do innych nauk i jej rozwoju" (On psychology, its subject, aims, method, relation to the other sciences, and on its development), WPF, pp. 241-91.
- (1919) "O jasnym i niejasnym stylu filozoficznym" (On the clear and unclear philosophical style), WPF, pp. 346-8.
- (1921) "Symbolomania i pragmatofobia" (On symbolomania and pragmatophobia), WPF, pp. 354-62.
- (1922) "O prawdzie formalnej" (On formal truth), Ruch Filozoficzny 7 (1922-1923), no 1-3, pp. 37b-38a.
- (1924) "O istocie pojęć" (On the essence of notions), WPF, pp. 292-312.
- (1925) "Teoria poznania. Wykłady z okresu 20.04 23.06.1925" (Lectures on the theory of knowledge), Archiwum Historii Filozofii i Myśli Społecznej 21 (1975), pp. 239-99.
- (1927) "Z logiki przymiotników" (Of the logic of adjectives), WPF, pp. 373-5.

2. Works on Kazimierz Twardowski

- Ajdukiewicz, Kazimierz (1921). "O stosowaniu kryterium prawdy" (On application of the criterion of truth). In: Język i poznanie, vol. 1 (Warszawa, PWN, 1960), pp. 11-13.
- Bakies, Bogdan (1975). "Twardowskiego koncepcja przedmiotu jako korelatu aktu" (Twardowski's conception of object as the correlative of act), Studia Philosophiae Christianae 11 (1975), nr 2, pp. 11-48.

- Blaustein, Leopold (1928). "Husserlowska nauka o akcie, treści i przedmiocie przedstawienia" (Husserlian teaching of the act, content, and subject of presentation), Archiwum Towarzystwa Naukowego we Lwowie; Dział II. Historyczno-Filozoficzny 4 (1928), pp. 359-453.
- Borzym, Stanisław (1983). "Twardowski i szkoła lwowska przed r. 1918" (Twardowski and Lvov School before 1918). In: Zarys dziejów filozofii polskiej (1815-1918), (Warszawa, PWN, 1983), pp. 488-510.
- Buczyńska-Garewicz, Hanna (1980). "Twardowski's idea of act and meaning", Dialectics and Humanism 3, pp. 153-64.
- - (1981) Znak i oczywistość (Sign and evidence), (Warszawa, Pax), p. 200.
- Chwistek, Leon (1932). "Tragedia werbalnej metafizyki (Tragedy of verbal metaphysics). In: Pisma filozoficzne i logiczne. T.I. (Warszawa, PWN, 1961), pp. 118-42.
- Czerny, Janusz (1987). Brentanizm i jego recepcja w filozofii europejskiej (Brentanism and its reception in the European philosophy) (Katowice, Uniwersytet Śląski, 1987), p. 164.
- Czeżowski, Tadeusz (1925). "Teoria pojęć Kazimierza Twardowskiego" (The theory of notions by Kazimierz Twardowski), Przegląd Filozoficzny 28 (1925), pp. 106-10.
- - (1946). "O naukach humanistycznych" (On humanities). In: Odczyty filozoficzne (Toruń, Towarzystwo Naukowe w Toruniu, 1969), pp. 30-9.
- --- (1948). "W dziesięciolecie śmierci Kazimierza Twardowskiego" (The tenth anniversary of Kazimierz Twardowski). In: *ibid.*, pp. 7-11.
- - (1953). "O metodzie opisu analitycznego" (On the method of analytical description).
 In: *ibid.*, pp. 136-42.
- - (1959). "Wkład Kazimierza Twardowskiego do teorii nauki" (Kazimierz Twardowski's contribution to the theory of science), Ruch Filozoficzny 18 (1959), nr 1-2, pp. 4-9.
- - (1966). "Pojęcie prawdziwości w odniesieniu do utworów literackich" (The notion of truthness with reference to literary works). In: Odczyty filozoficzne (Toruń, Towarzystwo Naukowe w Toruniu, 1969), pp. 224-28.
- - (1968). "Czym jest tzw. psychologia deskrypcyjna" (What is the so called descriptive psychology). In: *ibid.*, pp. 231-4.
- - (1971). "Kazimierz Twardowski". In: Filozofia w Polsce (Słownik pisarzy) (Wrocław, Ossolineum, 1971), pp. 409-11.
- Dąmbska, Izydora (1969). "Semiotyczne koncepcje w filozofii Kazimierza Twardowskiego" (Semiotic conceptions in Kazimierz Twardowski's philosophy). In: Znaki i myśli, (Warszawa, PWN, 1975), pp. 251-9.
- - (1979). "Franciszek Brentano a polska myśl filozoficzna. Kazimierz Twardowski i jego szkoła" (Franz Brentano and Polish philosophical thought. Kazimierz Twardowski and his school), Ruch Filozoficzny 37 (1979), nr 1-2, pp. 1-10.
- Grossmann, Reinhard (1977). Introduction. In: Kazimir Twardowski, On the content and object of presentation. A psychological investigation (The Hague, Martinus Nijhoff, 1977), pp. VII-XXXIV.
- Hempoliński, Michał (1987). "Szkoła lwowsko-warszawska na tle ruchu analitycznego w filozofii XX w." (The Lvov-Warsaw School on the background of the analytical movement in the XX-centuries' philosophy). In: Polska filozofia analityczna (Wrocław, Ossolineum, 1987), pp. 9-42.
- Ingarden, Roman (1938). "Działalność naukowa Kazimierza Twardowskiego" (The scientific activity of Kazimierz Twardowski). In: Kazimierz Twardowski: nauczyciel – uczony – obywatel (Lwów, Polskie Towarzystwo Filozoficzne), pp. 13-30.

- --- (1970). Wstęp do fenomenologii Husserla (An introduction to Husserl's phenomenology (Warszawa, PWN, 1974), p. 240.
- --- (1971). U podstaw teorii poznania (At the roots of the theory of knowledge) (Warszawa, PWN), p. 492.
- Jadczak, Ryszard (1985). "Rola introspekcji w ogólnej teorii nauk Kazimierza Twardowskiego" (The import of introspection in the general theory of sciences by Kazimierz Twardowski), Acta Universitatis Nicolai Copernici 9, pp. 3-19.
- --- (1990). "Kazimierzowi Twardowskiemu discipulorum amor et pietas" (For Kazimierz Twardowski – discipulorum amor et pietas), Przegląd Humanistyczny 2, pp. 173-7.
- Kambartel, Friedrich (1963). Einleitung des Herausgebers. In: Bernard Bolzano, Grundlegung der Logik (Hamburg, Verlag von Felix Mainer), pp. VII-LXXI.
- Kleiner, Juliusz (1930). "Kazimierz Twardowski". In: Andrzej Biernacki, Portrety uczonych polskich (Kraków, Wydawnictwo Literackie, 1974), pp. 445-50.
- Küng, Guido (1963). Ontology and the logistic analysis of language, (Dordrecht, Reidel Publishing Company, 1967), pp: XII, 210.
- Kwiatkowski, Tadeusz (1975). "Kazimierz Twardowski", Radar 2 (1976), pp. 6-7.

Łuszczewska-Romahnowa, Seweryna (1977) "Teoria wiedzy Kazimierza Twardowskiego" (The theory of knowledge by Kazimierz Twardowski). In: Polska myśl filozoficzna i społeczna. T. III (Warszawa, PWN), pp. 85-125.

- Ossowska, Maria (1931). "Słowa i myśli" (Words and thoughts). In: O człowieku, moralności i nauce. Miscellanea (Warszawa, PWN, 1983), pp. 183-225.
- Pacuła, Stanisław (1966). "Filozofia analityczna" (The analytical philosophy), Życie i Myśl 16 (1966), no. 12, pp. 34-5.
- Paczkowska-Łagowska, Elżbieta (1977). "On Kazimierz Twardowski's ethical investigations", Reports on Philosophy 1, pp. 11-21.
- --- (1980). Psychika i poznanie. Epistemologia Kazimierza Twardowskiego (Psyche and knowledge. Kazimierz Twardowski's epistemology) (Warszawa, PWN), p. 280.
- Passmore, John (1957). A hundred years of philosophy (New York, Basic Books, 1966), p. 574.
- Pelc, Jerzy (1981). Wstęp do semiotyki (Introduction to semiotics) (Warszawa, WP, 1984), p. 364.
- Rzeuska, Maria (1969). "O języku, stylu i polszczyźnie filozofów szkoły Twardowskiego" (On the language, on the style, and school). In: Rozprawy filozoficzne, (Toruń: Towarzystwo Naukowe w Toruniu), pp. 313-33.
- Skolimowski, Henryk (1962). "Kazimierz Twardowski and analytical philosophy", Polish Perspectives 5 (1962), no 12, pp. 30-9.
- - (1967). Polish analytical philosophy (London, Routledge and Kegan Paul), p: XII, 276.
- Stoniewska, Helena (1973). "Kazimierz Twardowski (1866 1938)", Polish Psychological Bulletin 4 (1973), no 1, pp. 55-60.
- Vernikov, Marat Nikolajevic (1969). "K istorii l'vovsko-varsavskoj skoly" (Towards the history of the Lvov-Warsaw School), Filosofskije Nauki 4, pp. 133-40.
- Winter, Eduard (1974). Einleitung. In: Robert Zimmermann, Philosophische Propädeutik und die Vorlagen aus der Wissenschaftslehre Bernard Bolzanos (Wien, Verlag de Osterreichschen Akademie der Wissenschaften, 1975), pp. 7-35.
- Woleński, Jan (1989). Logic and philosophy in the Lvov-Warsaw School, (Dordrecht/ Boston/London: Kluwer Academic Publishers).