Studia Semiotyczne — English Supplement

Volume XIII

Warsaw • 2015 (1983)

Jacek Juliusz Jadacki

LEON CHWISTEK'S VIEW ON LANGUAGE

Originally published as "O poglądach Leona Chwistka na język," Studia Semiotyczne 13 (1983), 23–33. Translated by Klaudyna Michałowicz.

1. INTRODUCTION

In his paper *Uwagi w sprawie programu prac z zakresu historii semiotyki* (*Studia z Historii Semiotyki*, vol. II, Wrocław 1973, pp. 209-210), Jerzy Pelc advised the following course of work on the history of semiotics:

> [...] The greatest advancement of the study of semiotics is observed in the fields of logics and philosophy [...] I would advise beginning [...] the enquiry from those two fields. [...]. Initially it is necessary to limit oneself exclusively to monographic studies. [...] I would also advise to begin from a thorough research on the most outstanding exponents of semiotics.

The current study is my second step towards the fulfilment of this advice. The first was my analysis *O poglądach Romana Ingardena na język*, which discussed Roman Ingarden's views on language and which appeared in the fifth volume of *Studia Semiotyczne* (Wrocław 1974, pp. 17-54).

***

Leon Chwistek was perhaps the most versatile Polish scholar of the first half of the 20$^{\text{th}}$ century. He was the creator of rational mathematics and the defender of nominalism in the philosophy of mathematics. As a formal logician and methodologist, he realized in practice the appeal for the formalisation of sciences as semantic systems. As an ontologist, he presented the theory of plurality of realities, and his epistemology was based on the broadly

understood empiricism and realism. In psychology, he was an adherent of experimentalism, and in ethics – of a brand of rigorism. In aesthetics and theory of art he was leaning towards relativism, and as a critic he supported formism. As a painter, he created extraordinary zonist paintings, and he also authored an Expressionist novel.

He was especially concerned with the issues of the language in three periods: 1916-1917, 1920-1924, and 1930-1937. The first period opens with his study *Sens i rzeczywistość*, the last closes with the work *Überwindung des Begriffsrealismus*. His main work, entitled *Granice nauki*, is the most crucial to the reconstruction of Chwistek's views on semiotics; hence the following synthesis of his convictions is based mainly on this book.

2. SIGN, MEANING, VERACITY

Every object may be a sign, but no object is a sign *per se*. It becomes one due to a certain contract, which may be arrived at without deciding what object precisely is the sign (1935, 1963: 55): a thing, a collection of elements, a system of impressions or perhaps some extra-temporal entity; a singular object (sign-specimen) or a collection of such objects (sign-type). Entering into such considerations is only harmful pedantry – harmful because it threatens to entangle one in purely verbal debates, for instance this one: when *a* ceases to be an *a*, and becomes a *d* or an *o* (1935, 1963: 11). It must be accepted that the PROPER content of the word "sign" cannot be defined (1935, 1963: 56). It is necessary and sufficient to simply point out the (simple) signs that we use, and the rules of constructing complex expressions from them (1935, 1963: 55). The possible indefiniteness may be overlooked for as long as it does not cause some serious disturbances in the very application of those signs (1935, 1963: 11). Such rules are indispensable because complex expressions cannot be constructed entirely at will; absolute arbitrariness sooner or later leads to contradiction (1935, 1963: 35).

All signs are two-fold objects. One aspect of them are the more or less defined sets of sounds, the other aspect are the more or less defined meaning (1920a, 1960: 101), expressed by means of those sounds (1920b, 1960: 105). This meaning can be understood in two ways. Primarily, in speech, an expression is a sort of a label of the perceived object; its meaning is no more than the obvious, an principal SKELETON of that object, the schema of reality (1935, 1963: 213). In this case, the object in question is always a real object; after all, general objects, to which the verbs, adjectives or some nouns

allegedly refer, do not exist (1917, 1963: 3, 6; 1923, 1961: 109). In the case of sentences this is a certain distinct real event (1932, 1961: 127); a relation between the elements of extra-lingual reality in the case of affirmations, or the lingual reality in the case of negations (1921, 1961: 65; 1935, 1963: 129). Secondarily, especially during reading, the place of that skeleton is taken by a certain experience (1932, 1961: 121), namely an IMAGE or THOUGHT which occurs during the reflection upon the method of applying this expression in speech (1932, 1961: 129; 1935: XX-XXI). The rise of such a secondary meaning, i.e. image, is a condition for the emergence of appropriate habits that make using expressions (general names) possible (1932, 1961: 121).

The reflex of answering to a certain set of images with a stable lingual behaviour develops only due to the fact that, during the acquisition of language, a given expression is assigned an unchangeable meaning in the primary understanding (1932, 1961: 128). Only as a result of the habitual application of expressions in speech, which was fixed in the above way, does the secondary meaning of expressions emerge. The images of which it consists are similar in the case of various users of the same language. This similarity diminishes as the distance from the realm of everyday life increases. Outside that realm, only partial communication is possible. Hence, among others, all attempts at searching for some inter-subjectual meaning of a given language's expressions, which would be accessible to all its users, are doomed to failure (1932, 1961: 121).

Since the original meaning of all expressions – including sentences – are real objects or sets of real objects, a meaningful statement (proposition) is true when it corresponds to reality. For EXPERIMENTAL, perceptual propositions, the benchmarks of that correspondence (conformity) are identical with the primary benchmarks of common sense. Thus, if they correspond to those benchmarks, they are absolutely and unconditionally true. For instance, the sentences: *The distance between my flat and the university is more than 10 centimetres* (1930-1933, 1961: 206; 1935, 1963: 24) or *Two times two makes four* (1921, 1961: 42) belong to such absolutely true propositions. However, the absoluteness, indubitableness of such propositions has a very uncertain basis: it is embedded in our convictions (1930-1933, 1961: 208). Hence the scope of experiential propositions is very limited and the boundaries – uncertain (1930-1933, 1961: 207). It would be difficult to expect more at this point than the above generalities.

In the case of SCIENTIFIC (theoretical) propositions, the given proposition's veracity, or lack of it, depends on the way in which the scopes of expressions present in this proposition have been established. It is therefore a

relative feature of certain propositions, but it is capable of being determined with enough strictness (1935, 1963: 78). It is a relative feature, because it is dependant on all accepted solutions, on a system of propositions, in which the proposition, to which veracity is ascribed, appears – and those that are in essence temporary and revocable. Even if all those propositions which are repeated in all solutions were assumed to be absolutely true, that very choice would constitute an obvious arbitrariness (1930-1933, 1961: 207-208). Yet this relativity of the veracity of extra-experiential (analytical) propositions should not be confused with the utility benchmark. After all, a thing can be utile with respect to various purposes. It is, of course, possible to set an objective or task, the reaching or fulfilment of which would be facilitated by falsity or absurdity (1930-1933, 1961: 206). But if some scientist (including a mathematician) accepts a given assumption or description (definition), and not any other, his arbitrary choice can be assumed to be in keeping with the utility benchmark only inasmuch as it is useful for granting the largest possible productivity to the given branch of science (1921, 1961: 42; 1932, 1961: 134).

3. THE NATURAL LANGUAGE

The natural language lays claim to FULLNESS (1924, 1960: 54). It permits speaking about everything: it is possible to speak about speaking, to signify expressions with expressions, unlimitedly use such terms as *all expressions*, *all properties* etc. (1935, 1963: 16). This fullness, however, is accompanied by indefiniteness, ambiguity and internal inconsistency (1935, 1963: 17).

The natural language is INDEFINITE, because it does not possess:

(1) clear benchmarks, which would make it possible to distinguish

(a) meaningful expressions from expressions devoid of meaning (1935, 1963: 13),

and

(b) true sentences from sentences that are untrue (1935, 1963: 18);

(2) clear rules for creating expressions, especially a clearly-enough defined substitution principle; hence general (universal) propositions with strictly defined contents are absent in the natural language (1935, 1963: 93).

Furthermore, the natural language is AMBIGUOUS (1921, 1961: 46; 1930-1933, 1961: 192; 1935, 1963: 55), because expressions that belong to it are vague (1935, 1963: 55, 74) and polysemantic (1935, 1963: 4); hence it is possible to form such propositions as *This is white and not white*, *Electrons are real and unreal*, which demonstrate the vagueness of the scope of certain words (1935, 1963: 96). Finally, the natural language is INTERNALLY INCONSISTENT, because applying it to the description of whatever exceeds the simplest phenomena of everyday life leads to a contradiction (cf. the paradoxes of Eubulides, Grelling etc.) (l935, 1963: 8).

Despite its fullness, therefore, the natural language is an imperfect tool due to its indefiniteness, ambiguity and internal inconsistency (1935, 1963: 5). Hence it needs to be improved (1935, 1963: 13-14). Such an improvement may be attempted by means of two methods: the analytical or the constructional one.

4. THE ANALYTICAL METHOD

Application of the analytical method requires us to essentially recognize the natural language's claim to fullness and accept that its imperfections may be alleviated by the explication and systematisation of ready, existing expressions. If so, it would require only to conduct a content analysis of the given expression to establish its ESSENTIAL, TRUE and DISTINCT meaning.

The above assumes that it is possible to arrive at absolute, final knowledge. This assumption is accompanied by a conviction that natural expressions actually possess such true and definite meaning; all that is needed only to discover and systematise them (1923, 1961: 114). It is, however, a delusive conviction. Natural expressions do not have a single TRUE meaning; the natural language does not contain grains of absolute truth (1935, 1963: 9). We shall never discover what goodness, beauty, love, friendship or the human soul really are by searching for the internal meanings of the relevant words from the natural language – because this cannot be discovered by any method (1924, 1960: 52; 1935, 1963: 4). It is possible to try to determine, one way or another, the scope of a certain expression, for instance the notion of decency, and depending on the quantity of people pronounced decent as a result, that action would be more or less effective. It is possible to give such a meaning to the notion of decency, that not even a single person would be found decent; the word *decency* would then become useless. One way or another, the question of what really is the scope of a given natural

expression – of who is REALLY decent – is simply absurd (1935, 1963: 204). No expression of this kind, including the simplest names: *horse*, *sparrow*, *penny*, *cigarette* or *man*, has either a clear-cut scope or a clear content.

Of course, it is difficult to confuse, for instance, *friendship* with *horsemanship* (1924, 1960: 52), but at some point the content analysis reaches a stage when it is impossible to decide whether the given expression applies to the given object or not (1935, 1963: 10-11). This is corroborated by the ancient paradoxes about the bald man, the heap of sand (both ascribed to Euclid) or the rustle (ascribed to Zeno of Elea) (1935, 1963: 11). It is also easy to realise this when trying to conduct the simplest dichotomous division on expressions belonging to the natural language (1923, 1961: 113).

Thus, the natural language is not a system of clear and unambiguous expressions, and as long as it remains natural, and hence full, there can never be such a system (1935, 1963: 9). What is more, there is no need to look for this system in the natural language (1935, 1963: 47-48). Incidentally, the shortage of results achieved by the analytical method indirectly attests to the ineffectuality of this path (1921, 1961: 39): this path inescapably leads to the quibbles of verbal metaphysics.

This is because, while conducting the content analysis of an expression belonging to the natural language, we finally substitute certain natural expressions with other expressions which are also natural, and hence not free from ambiguity and polysemanticism (1935, 1963: 11).

At the same time, it must be remembered that such ascriptions are made on the basis of the classical *definitio per genus proximum et differentia specifica*. Thus, another fallacy is added: that we are actually able to find such *differentia specifica*. Most often, or in reality always, it is just the feature that makes, say, a sparrow different from a canary, that is assumed to be the *differentia specifica*. The real state of affairs is thus obscured, this state of affairs being that as a final point, the word *sparrow* – like the majority of expressions belonging to the natural language – is introduced by pointing a finger to a live specimen of this bird (1935, 1963: 12). The result of the earlier pseudo-verbal definition is usually that instead of statements which are natural, but at least straightforward, we end up with statements which are only quasi-unambiguous, but in reality only over-elaborate and heavy (1935, 1963: 216). No method makes it possible to effectively distinguish between the more and less ambiguous expressions in the natural language; this fact to a sufficient degree undermines the validity of efforts with respect to content analysis conducted in this manner.

5. THE CONSTRUCTIONAL METHOD

The constructional method, in turn, may boast significant achievements. It is particularly productive in the works of logicians and mathematicians, but also those by, for instance, codifiers of law (1924, 1960: 52; 1932, 1961: 130).

In accordance with this method, the natural language needs not explication and systematisation, but re-formation from the very foundations. Above all, it is necessary to reject its claim to fullness, because it is the source of indefiniteness, ambiguity and internal inconsistency. The colloquial language is an effective tool if its LIMITEDNESS is accepted (1935, 1963: 128-129). It will be free from those features, if no attempts are made to use it to describe phenomena which do not belong to the world of objects of everyday use (1930-1933, 1961: 192; 1935, 1963: 4). Next, it is necessary to reject the assumption that the expressions of any language are clear and unambiguous *per se*, and to abandon the hope, connected with this assumption, of gaining the final knowledge regarding their meaning. Expressions can became clear and unambiguous only in the course of appropriate procedures (1935, 1963: 47-48). Semantic analysis may be an introductory step to those procedures.

However, the proper improving procedures begin only afterwards. In practice, they consist in creating an entirely new language, which makes it possible to speak about issues exceeding the everyday with no threat of indefiniteness, ambiguity and internal inconsistency (1935, 1963: 58). Validity of substituting such new language instead of the natural language derives from the fact that any language may be considered to have a finite number of words (1917, 1961: 7) and, generally speaking, it is possible to imagine such a grouping of sets of those words that everything that ever was and ever would be said in that language would be thereby exhausted (1917, 1961: 8). Such a language, created *ad hoc*, is no longer indefinite, because it is provided with a list of simple expressions and with a set of rules of abbreviation and rules of demonstration (which delineate the principles of recognizing given expressions as statements of a certain system).

The differentiation between meaningful expressions and expressions devoid of meaning can be made on the basis of the rule selected without constraint (1912: 63; 1917, 1963: 9; 1935, 1963: 13). This is because language formations arrange themselves into one, unbroken range. On the one end of that range there are meaningful expressions (those which possess sense) in the scientific understanding, including meaningful statements, i.e. propositions. The other end consists of expressions which are entirely devoid of meaning: which are semantically empty (1921, 1961: 98; 1935, 1963: 13). Depriving the

language of indefiniteness in the above manner results in the disappearance of the foundation for the *a priori* division of propositions into analytical and synthetic, since it turns out that all theorems are derived from the primary theorems, whose arrangement precisely delineates the meaning of primary expressions.

Expressions, whose meaning has been thus delineated, can be used without a prior insight into that meaning (1932, 1961: 121), as long as the arrangement of the primary theorems which it determines is not exceeded; if it is, there is the danger of standing in the face of issues that are irresolvable because they permit any resolution (1922: 543). This results in the removal of the source of the language's ambiguity (1935, 1963: 74-75). On the other hand, it turns out that, strictly speaking, no rule is an analytical proposition, because there is none that would not bring in something materially new, would be provable and would be accepted totally without constraint (1921, 1961: 45; 1935, 1963: 41).

6. ARTIFICIAL LANGUAGE

A language thus constructed, free from indefiniteness and ambiguity of the natural language, is no longer threatened by contradiction (1921, 1961: 46). There are, however, two issues that must be borne in mind.

Firstly, that this language is not some substitute in relation to the natural language. After all, in any field, in which there is a need to communicate, we are doomed to using the natural language. The formal language (e.g. the language of symbolic logic) – because this language is precisely what we are dealing with here (1921, 1961: 41) – is not a means of communication, but only a tool that makes it possible to delineate the boundaries (limitations!) of the natural language and to check whether those boundaries are not exceeded when that language is used (1935, 1962: 216). We SAY *Socrates is a human being* regardless of whether in the UTTERANCE we use the word "Socrates" as a proper name, as an individual name (a sign referring to a set of only one designate), or as a general name (a sign of a freely chosen set). If, however, we READ this text and want to follow precisely that which is written, we are obliged to UNDERSTAND this inscription as equal to the theorem that the set "Socrates" is a sub-set of the set "human being". Any other understanding would signify adding one's own interpretation – which may perhaps be alien to the sender of that message – referring to, for instance, our knowledge of, or doubt in, the existence of a definite human being named Socrates, to the image of this personage we have or not have, etc. (1932, 1961: 124-125).

Secondly, the formal language should, just as the natural language, follow the rules of sound reason, chiefly the rule of non-contradiction (1935, 1963: 6-7). This sound reason ought not to be equated with the everyday common sense in the meaning of everyday prudence, the requirements of which change depending on the conditions of life (1935, 1963: 2) and which does not always take the rule of non-contradiction under consideration (1935, 1963: 6-7). A theorem which is possible to be constructed in the formal language, but concurrently counter to the rules of sound reason, must be rejected. One such theorem is the rule of subordination (assuming the strong understanding of the general sentence, i.e. $(x)CPxQx$, not $NExKPxNQx$), because it leads to accepting the existence of unreal entities. Having accepted that all devils are vermin – and there is no reason not to accept this – we would be obliged to accept by the same token that some vermin are devils and so, consequently, that devils do exist (1935, 1963: 8-9, 91). In such circumstances, while reflecting on the issue of the soul, we might overlook the fact that, perhaps, the very world soul is empty (1935, 1963: 5). Accepting such entities, in turn, inevitably leads to the vagueness of our language's expressions and to the emergence of illusory issues.

The drawbacks of the analytical method become even more evident when it is applied to scientific language. Then, it is even more clearly visible that the enterprise relying on the explication of primary scientific notions is scientifically futile due to those notions' lack of clarity (1921, 1961: 39, 46). It may be said that, for instance, in physics the notion of the location of the electron ought to be determined broadly enough for the notion of the electron's momentum to receive a narrow enough scope. It is not surprising, therefore, that the TRUE location and momentum are impossible to establish; the search for the TRUE location and TRUE momentum is just as absurd as the attempts to establish the meaning of TRUE decency (1935, 1963: 202). A similar case involves the polysemanticism of the notion of the straight line and the resultant possibility of constructing various systems of geometry (1921, 1961: 40).

Semantic analysis of the language of science may, at the most, give an impulse for the conscious definition of scope and contents (1921, 1961: 461). Such specification relies on– in keeping with the constructional method – substituting primary notions with strict language formations (1921, 1961: 48; 1922: 342). They should be selected in such a way to enable finding their counterparts in the natural language (1932, 1961: 129) and to enable accurate anticipation of the results of experiments prepared by ourselves (1930, 1961: 195-196). They cannot be required, however, to enable anticipation

of spontaneous phenomena occurring in life (1921, 1961: 71) – except, of course, the simplest events (1932, 1961: 129). Because the meaning of these strict language formation is entirely defined by primary theorems (1932, 1961: 113). Outside the system of those theorems, it is difficult to speak of any understanding of them, let alone a clear one.

7. FINAL REMARKS

Chwistek not only called for the creation of a formal language and re-creation of primary sound reason notions in it, but attempted to put this proposal into practice. This found its expression in the system, which he constantly continued to improve, of rational semantics: the theory of expressions, which would describe their primary features: relations of precedence, inclusion, substitution and semantic identity, in a manner formal (1935: XXIII) and free from metaphysical premises (1935: XIX).

LIST OF LEON CHWISTEK'S STUDIES CONCERNING THE ISSUES OF LANGUAGE

1912 – *Zasada sprzeczności w świetle nowszych badań Bertranda Russella*. Rozprawy Akademii Umiejętności, Wydział Historyczno-Filozoficzny 30: 68.

1916 – *Sens i rzeczywistość* (typescript).

1917 – Trzy odczyty odnoszące się do pojęcia istnienia. *Przegląd Filozoficzny* XX[2-4]: 122-151. *Idem* [in:] 1961: 3-29.

1920a – Formizm. *Formiści* I[2]: 2-3.*Idem* [in:] 1960: 100-104.

1920b – Poezje formistyczne Czyżewskiego. [Introduction to:] T. Czyżewski, *Zielone oko. Poezje formistyczne. Elektryczne wizje*. Kraków, 5-6. *Idem* [in:] 1960: 105-106.

1921 – *Wielość rzeczywistości*. Kraków: 96. *Idem* [in:] 1951: 30-105.

1922 – Krótka rozprawa z panem Romanem Ingardenem, doktorem uniwersytetu fryburskiego. *Przegląd Filozoficzny* XXV[4]: 541-544.

1923 – Zastosowanie metody konstrukcyjnej do teorii poznania (dalszy ciąg dyskusji w sprawie *Wielości rzeczywistości*). *Przegląd Filozoficzny* XXVI[3-4]: 175-187. *Idem* [in:] 1961: 106-117.

1924 – Wielość rzeczywistości w sztuce. *Przegląd Współczesny* III, vol. IX[24]: 79-95. *Idem* [in:] 1960: 51-73.

1930-1933 – *Zagadnienia kultury duchowej w Polsce*. Warszawa: 208. *Idem* [in:] 1961: 149-277.

1932 – Tragedia werbalnej metafizyki (Z powodu książki Dra Ingardena *Das literarische Kunstwerk*). *Kwartalnik Filozoficzny* X[l]: 46-76. *Idem* [in:] 1961: 118-142.

1935 – *Granice nauki. Zarys logiki i metodologii nauk ścisłych*, Lwów-Warszawa: XXIV, 266. *Idem* partially [in:] 1963: 1-232. English translation: *The Limits of Science. Outline of Logic and of Methodology of Exact Sciences*. Translated by H. Ch. Brodie and A.P. Coleman. New York-London, 1949: LVIII, 348.

1937 – Überwindung des Begriffsrealismus", *Studia Philosophica* II: 1-8.

A selection of studies is published in the collective issues:

1960 – *Wielość rzeczywistości w sztuce i inne szkice literackie*. Selected and introduced by K. Estreicher. Warszawa: 264.

1961,1963 – *Pisma filozoficzne i logiczne*. Selected, introduced with a foreword and annotations by K. Pasenkiewicz. Vol. I. Warszawa 1961: XXXII, 280; Vol. II. Warsaw 1963: XXII, 312.

KEY STUDIES CONTAINING REMARKS ON LEON CHWISTEK'S VIEWS ON LANGUAGE

Ajdukiewicz, Kazimierz (1914). Leon Chwistek: Zasada sprzeczności w świetle nowszych badań Bertranda Russella. *Ruch Filozoficzny* IV[7]: 173b-176b.

Ajdukiewicz, Kazimierz (1934). Logistyczny antyirracjonalizm w Polsce. Odczyty polskie na Zjeździe Filozoficznym w Pradze, 1934. *Przegląd Filozoficzny* XXXVII[4]: 79(399)-88(408). German translation: (1935) *Der logistische Antiirrationalisums in Polen. Erkenntinis* 5: 151-161.

Bocheński, Józef Maria (1956). *Formale Logik*. Freiburg-München, pp. XVI, 640.

Estreicher, Karol (1971). *Leon Chwistek. Biografia artysty (1884-1944)*. Kraków, pp. VIII, 404.

Hiż, Henryk (1967). Leon Chwistek. *The Encyclopedia of Philosophy*. Edwards P. (ed.). Vol. II, New York-London: pp. 112-113.

Ingarden, Roman (1922). Leon Chwistek: *Wielość rzeczywistości*. *Przegląd Filozoficzny* XXV[3]: 451-468.

Ingarden, Roman (1923). Leon Chwistek: *Wielość rzeczywistości*. *Ruch Filozoficzny* VII[7-8]: 99a.-101b.

Ingarden, Roman (1923). Uwagi do „Krótkiej rozprawy" itd. *Przegląd Filozoficzny* XXVI[1-2]: 100-104.

Jordan, Zbigniew A. (1945). The Development of Mathematical Logic and of Logical Positivism in Poland between the Two Wars. *Polish Science and Learning* [6]: 9-48.

Knjazeva, Svetlana (1964). *Filozofija lavovsko-varšavske škole*. Beograd, pp. 262.

Kotarbiński, Tadeusz (1947).Przegląd problematyki logiczno-semantycznej. *Sprawozdania z Czynności i Posiedzeń Łódzkiego Towarzystwa Naukowego* II[l(3)]: 46-53. *Idem* [in:] (1961) *Elementy teorii poznania, logiki formalnej i metodologii nauk*, pp. 473-480.

Kotarbiński, Tadeusz (1959).*La logique en Pologne*, Rome, pp. 24.

McCall, Storrs, ed. *Polish logic 1920–1939*. Introduction by Tadeusz Kotarbiński. Oxford 1967, pp. VIII, 406.

Myhill, John R. (1949). Leon Chwistek: *The Limits of Science. The Journal of Symbolic Logic* XXIV[2]: 119-125.

Pasenkiewicz, Kazimierz (1961). Pierwsze systemy semantyki Leona Chwistka. *Zeszyty Naukowe Uniwersytetu Jagiellońskiego. Rozprawy i Studia*. Vol. 38, pp. 150.

Pasenkiewicz, Kazimierz (1962). Analiza i krytyka teorii wielości rzeczywistości Leona Chwistka. *Studia Filozoficzne* 1[(28)]: 65-92.

Skolimowski, Henryk (1967). *Polish Analytical Philosophy*. London, pp. XII, 276.

Witkiewicz, Stanisław Ignacy (1.06.1933 – 15.03.1934). Leon Chwistek – demon intelektu. *Zet* [5]: 5; [7]: 4; [9]: 2; [10]: 4; [12]: 2; [13]: 5; [14]: 5; [15]: 2; [17]: 5; [18]: 5; [19]: 5; [20]: 5; [21]: 5; [22]: 5; [23]: 5; [24]: 6.

Zawirski, Zygmunt (1946). Leon Chwistek. *Przegląd Filozoficzny* XLII[3-4]: 330-334.

Zwinogrodzki, Zbigniew (1966). Ostatni system matematyki racjonalnej Leona Chwistka. *Ruch Filozoficzny* XXV[1-2]: 91-93.