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Between Semantics and Logistics. The Polish Delegation at the Congress for Scientific Philosophy in Paris 1935

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Résumé : L'article est consacré au rôle de la délégation polonaise durant le Congrès de philosophie scientifique en 1935 à Paris. Les Polonais représentent à Paris une forte tendance sémantique, ce qui – aux yeux de l'organisateur Louis Rougier – permet de tempérer le concept de la philosophie scientifique par rapport à la radicalité des philosophes du Cercle de Vienne. La *logistique* – la grande disparue de l'historiographie philosophique contemporaine – constitue le concept clé de l'article. Pour désigner les Viennois, Louis Rougier utilise le terme d'*empirisme logique intégral*. À notre tour, nous proposons le terme de logistique intégrale pour désigner l'école logique de Varsovie.

Abstract: This article deals with the role played by the Polish delegation during the 1935 Congress for Scientific Philosophy in Paris. The Poles represented a strong semantic trend in Paris, something that, in the eyes of organizer Louis Rougier, gave balance to the concept of scientific philosophy with respect to the radical nature of the Vienna Circle philosophers. Logistics—lost now almost without trace from contemporary philosophical historiography—constitutes the key concept of the article. In referring to the Viennese, Louis Rougier employed the term full logical empiricism. Taking our cue from him, we propose that the term full logistics be applied to the Warsaw school of logic.

Tota methodus consistit in ordine et dispostione eorum ad quae
 mentis acies est convertenda, ut aliquam veritatem inveniamus.
 [Descartes, *Regulae ad directionem ingenii: Regula V*]

Władysław Tatarkiewicz (1886-1980), a disciple of Kazimierz Twardowski and eminent historian of ideas and aesthetics, used the 5th Cartesian rule as the motto for his monumental *History of Philosophy* [Tatarkiewicz 1948-1950] to remind us that proper method is nothing more than the ordering and arranging of whatever objects we must focus on in order to arrive at truths. For a historian of philosophy, this rule is above all a warning against being taken in unawares by classifications that have the appearance of self-evidence. Classifications have the capacity to turn aside our attention, just as an illusionist might. For a historian of philosophy, the 5th Cartesian rule is a reminder of the importance of chronology, a reminder of the necessity to return to primary sources and facts when even the slightest doubt arises.

Historical reconstruction of the role played by Polish philosophers at the Congress for Scientific Philosophy in Paris has shed new light on the constellation of doctrines that existed in the European academic realm of the 1930s. A mere 80 years has passed since this Congress, and yet, taking a closer look at the preparations and discussions it involved, we discover a world we cannot fully understand and thought we had lost all connection with. Why so? In Central Europe, the war and the ensuing Soviet occupation decimated human resources. Those who survived were denied the free circulation of ideas under the regime of the Iron Curtain [Miskiewicz 2014]. Returning to this pre-war period, we thus encounter notions which, although seemingly universal in essence, have, surprisingly, been completely eradicated from philosophical use and even from philosophical dictionaries. One example of these is the notion of *logistics* [Lalande 1926].¹

1 Scientific philosophy in Europe: Between Prague and Paris

The general context of the Congress for Scientific Philosophy in Paris, 1935 (15–23 September), was precisely the issue of *scientific philosophy*. In light of the situation in Europe in the 1930s, understanding what kind of philosophy humanity required had become a necessity. Since the progress of science

1. The presentation of this dictionary recalls that this ancient word, which in the Middle Ages referred to practical calculation, and in Plato practical arithmetic, was introduced into the Second Congress of Philosophy in Geneva in 1904 by three participants: Itelson, Lalande, and Couturat “with no prior meeting or discussion”. They reintroduced this ancient term in order to give a single name to the new logic of the time (variously referred to up until then as *symbolic logic*, *mathematical logic*, *algorithmic logic*, or *algebra of logic*).

had transformed the world by inspiring new technologies, it was therefore plausible to imagine that scientific philosophy might now be able to lead Europeans away from disaster. What would it mean for philosophy to be scientific? To adapt the mathematical model, as the logical empiricists proposed? Or perhaps, as Edmund Husserl (originally a mathematician) had been claiming since the beginning of the 20th century, a radical renovation of philosophy and science would be possible only through “pure logic” and transcendental phenomenology. Though while Husserl identified the crisis of European sciences and was thus moved to reform them, his prodigal pupil, Heidegger, became the leading German figure calling for widespread rejection of European science and the renaissance of the German University through national socialist student *action* [Heidegger 1934].

The Paris Congress of 1935 was partly the outcome of the International Conference of Philosophy in Prague (1934), where the determinant discussion on method in philosophy had taken place. What marked the event most was a clash between logical empiricism and phenomenology.² The world of European philosophy now awaited the continuation, due to take place during the next International Conference in Paris in 1937, the Descartes Congress. However, several of the participants—led by Rougier and Reichenbach and convinced of the supremacy of the mathematical model as a guarantee for philosophical efficiency and the unity of the sciences—decided during a *Vorkongress* meeting held just before the Prague Congress to meet in Paris two years earlier than planned, in 1935. Just as mathematics is the language of physics and the exact sciences, so philosophy had to find a language that would guarantee its own exactness within the new mathematical logic [*logistics*]. The meeting in Paris in 1935 was initially planned as a specialized meeting, with one of the aims being to appoint an international committee for the unification of symbols in logic. However, the organizers had not anticipated the clamoring response they received for a meeting of the kind, something which actually further spurred the ambitions of many, as was expressed by one of the founders of logistics, Bertrand Russell, in his inaugural speech. He expressed his hope that the proceedings of the Congress for Scientific Philosophy would contribute to finding the “cure for the diseases of the modern world” [Actes 1936, I.11].³ Louis Rougier (1889-1982), organizer of the Parisian Congress, in the foreword to the *Proceedings of the Congress*, later concluded that the arguments for logical empiricism, “by their coherence, their sophisticated elaboration, by the precision of their language, constitute the starting point and basis of all discussion at the Congress” [Actes 1936, I.4].⁴

Although the theme of the Parisian Congress was scientific philosophy in general, the Congress was to become a unique manifesto for logical

2. In the absence of Husserl, the leading role was taken up by a Polish philosopher who was close to Twardowski and a disciple of Husserl, namely Roman Ingarden.

3. From now on *Actes*, n° de volume, n° de page.

4. “[...] par leur cohérence, leur élaboration très poussée, leur langage précis constituèrent en fait le point de départ et la base des discussions du congrès.”

empiricism in all its diversity.⁵ Even though, for some years, the most active group among the logical empiricists consisted of those gathered around Moritz Schlick of the Vienna Circle, when Rougier came to classify the groups and movements in scientific philosophy who were to take part in the Congress, he omitted the Viennese from a list which cited: French positivism, the empirico-criticism of Avenarius and Mach, Anglo-Saxon pragmatism, empirical rationalism (represented especially by French and Italian scholars and philosophers), the restricted conventionalism of Henri Poincaré, Russell's logicism, the formalism of the Göttingen school, and Polish semantics [Actes 1936, I.6]. So why did Rougier not list the Viennese? It would seem he didn't acknowledge the latest transformation of the Vienna Circle, occupied now with reducing scientific philosophy to the syntactic analysis of scientific language. Referring to Henri Poincaré as a renovator of scientific philosophy in France ("rénovateur en France de la philosophie scientifique" [Actes 1936, I.5]), Rougier labels the logical empiricism of the Vienna Circle as *full* logical empiricism [*empirisme intégral*]. Because of this qualification, Rougier points to one of the fundamental topics of discussion at the Congress: the theoretical role played by the Vienna Circle in logical empiricism as a whole. Many attendees were aware of the risk of *logicism*⁶ within scientific philosophy... Fears of logicist reductionism were plainly expressed in an opening statement by the Italian Federigo Enriques [Actes 1936, I.12]. As we will now show, representing the semantic dimension of scientific philosophy, the Poles present at the Congress played a special role. A role which, moreover, enjoyed Rougier's express support.

2 The role of the Polish delegation

Poland was strongly represented at The International Congress for Scientific Philosophy in Paris in 1935. Attended by 200 participants from 16 countries, Poles accounted for 15 out of 81 papers delivered. Despite having no members on the Organizing Committee (Łukasiewicz was only included in the Provisional Committee formed during the *Vorkongress* in Prague in 1934), and despite Poland being in no way involved in sponsoring the Congress, the chairman for the Polish delegation still delivered one of the seven inaugural speeches that opened the Congress. Kazimierz Ajdukiewicz took the floor alongside the principal participants from France, Austria, England, Italy, and the USA.

Three reasons are conceivable for such a special honoring of the Polish delegation. Firstly, Rougier did not want the Congress to be dominated by

5. Bonnet & Wagner show that logical empiricism has never been homogeneous, as was suggested by the Viennese [Bonnet & Wagner 2006]. No Polish philosophers feature in this anthology.

6. See the definition of "logicism" in [Lalande 1926].

the *full* logical empiricism of the Vienna Circle. Recalling Polish analytical philosophy at the very outset of the Congress preemptively broadened the scope of the discussions, beyond the exclusively syntactic analysis of the language of science, which was the focus of the radicalized Viennese. This is especially true given the fact that the Lvov-Warsaw School had already traversed its own polemics regarding logicism, prompted by the stance of the young Łukasiewicz during the first years of the 20th century. The second reason is that the Poles had actively participated in meetings that preceded the Parisian Congress. Last but not least, there is the fact that, inspired by Twardowski, the rich scientific and academic philosophy practiced in Poland had earned itself exceptional prestige in the 1930s. And so it is with this latter point that we shall begin.

The first half of the 20th century saw a true culmination of philosophical potential in Poland. In the inter-war period, for the first time, it was no longer one Polish philosopher among others but rather philosophy as practiced in Poland which lay at the heart of contemporary philosophical debate [Pouivet 2006]. Polish philosophers, with no anxiety or inhibitions, had not only deciphered current, pre-existing philosophical problems, but had also often inspired new ideas. Moreover, in this country, with its over two centuries of state non-existence and essentially no academic institutions, a unique and “progressive” philosophical style had been developed at the beginning of the 20th century which took as its references, not the history of philosophical texts, but rather the scientific ideal of objective truth in the academic context.

Polish philosophy enjoyed such esteem that young American philosophers touring in Europe visited not only England, Paris, Berlin, and Vienna, but also Warsaw. This phenomenon even found voice in an article by Ernest Nagel:

Since the re-establishment of Poland, Polish thinkers have published many of their important researches in their national language, about some of which only fugitive hints can be obtained from summaries in French and German. My visit to Warsaw and Lvov was therefore a profitable experience for me. [...] I found Poland to be an interesting and remarkable country philosophically. [Nagel 1936, 50]

All of this was the work of one man—Kazimierz Twardowski (1866-1938).

3 Polish philosophy versus philosophy in Poland

Barry Smith was correct in the initial thesis of his disputatious article, “Why Polish philosophy does not exist” [Smith 2006]. Analytical philosophy in Poland, in the first half of the 19th century, was in no way a

national philosophy. One cannot, in any rigorous way, claim that this is “Polish” philosophy. Philosophy, as developed by Twardowski, stood independently of the nationality, gender and religion of the people practicing it. Barry Smith says:

Just as the term “Austrian Philosophy” is a misnomer to the degree that it suggests that there is a corresponding national or regional or ethnic philosophy, or a special Austrian way of doing philosophy that is unavailable to those born (say) outside the borders of the former Habsburg Empire; and just as the term “women’s philosophy” is a misnomer to the extent that it suggests that there is a special way of doing philosophy that is available only to those of feminine gender, so also the term “Polish philosophy” is a misnomer—for just the same reasons.
[Smith 2006, 35]

Barry Smith, who makes his own philosophical paradigm very clear,⁷ stresses the importance of Brentano in the genesis of the philosophical practice initiated by Twardowski in Lvov. At the same time, though, he does not sufficiently value either the influence of French philosophers or the role of experimental psychology, developing rapidly in Poland, both of which created especially favorable circumstances for the development of the particular kind of scientific philosophy embodied by Twardowski and his circle in Poland. Most importantly, Barry Smith seems unaware of Twardowski’s conscious strategy towards establishing a modern university in Poland, an ambition Barry Smith nevertheless sees as being of great importance. A university where science and freedom would be the highest virtues and professionalism the style. We will return to Twardowski’s ideas for university further on. For now, it is important to recall that for the Poles, the philosophical explosion at the beginning of the 20th century was preceded and accompanied by remarkable activity in the domain of scientific psychology, a then emergent discipline.⁸

4 The Leopoldian philosophical style

Twardowski’s students and followers shared a certain style of philosophical research based on logical verification and clarity of argumentation, the rejection of broad synthesis and a philosopher’s sense of moral responsibility. They

7. Barry Smith: philosophy as “a creature of the modern university, it will come to be marked to an increasing degree by the factor of professionalization, so that respect for technical competence and for the scientific method and rejection of hagiography and the use of a mystifying style will come increasingly to characterize the discipline of philosophy as a whole” [Smith 2006, 34].

8. The First International Congress of Psychology, attended by 21 nations, was held in Paris in 1889, at the time of the Exposition Universelle, on the initiative of a young Pole named Julian Ochorowicz (PhD. student in Wundt in 1874).

did not exclude the possibility of metaphysical and ontological investigations, with particular respect to problems posed by modern science (physics and biology) or art and ethics.⁹ What they all had in common is a kind of positivist attitude and a specific philosophical background: anti-psychologism, *logistics*, the theory of *meaning postulates*, and a classical (predicative) definition of truth—later formulated by Tarski—as a *semantic theory of truth*.

Among them, only the followers of *full logistics*¹⁰ (Łukasiewicz, Leśniewski)—echoing Auguste Comte—denied psychology the status of science [Miskiewicz 2011]. Thus, empirical psychology was successfully promoted and practiced first in Lvov and Warsaw and then throughout the country, with a distinction drawn between *theoretical psychology* and *applied psychology* (psychotechniques and applied psychology: education, media, etc.) [cf. Miskiewicz 2016].

The general heuristic framework was provided by the *theory of actions and products* developed by Twardowski in 1911 [cf. Miskiewicz 2017a]. The starting point of the *theory of actions and products* (TAP) is the observation that individuals possess the capacity to distinguish, within their own cognitive experience, between activities (actions) and the products of these actions. This cognitive capacity can, *ceteris paribus*, be compared to another capacity, this one fundamental to *theory of mind* (*ToM*), namely, the capacity to form representations of other people's mental states. The difference is that *not possessing* a *ToM* leads to pathologies of development and communication, whereas *not accounting for* the TAP when constructing scientific theories leads to objective incoherencies and pushes theories into naturalist relativism (psychologism, anthropologism, cognitivism, etc.). The *ToM* is a theory of developmental psychology which has epistemological implications (epistemology in the sense of a cognitivist theory of knowledge); the TAP is a theory of knowledge with epistemological implications (in the sense of a theory of science). The *ToM* is a generalization based on experiments from cognitive developmental psychology; the TAP stems from the observation of a linguistic recurrence: all languages distinguish between activities (to run, to cry, to write, etc.) and their products (a run, a cry, some writing, etc.).

Action as an effective psychophysical content (to judge that..., to paint something, to sing something) is a fragment of the flux from a concrete conscience. Yet, this action may be expressed, a posteriori, through material *signs*, as with a written statement on a sheet of paper or a physical object (graph, recording, etc.). Through expression, some concrete content from a flux of conscience is *detached* from its origin and *stabilized* in a material form.

9. In France, the first colloquium dedicated to this subject took place from the 20th to the 22nd of November 2003 in Nancy: *Philosophie et Logique en Pologne (1918–1939). Contribution à l'histoire de la philosophie du xx^e siècle*. Since 2004, a digital site of archives of the Lvov-Warsaw school has been available (<http://www.elv-akt.net/>), created and coordinated by W. A. Miskiewicz. It also serves as a research and digital editing infrastructure.

10. The meaning of this term will be explained below.

For example, a thought one might have while analyzing a text can thus be detached and stabilized in order that it not be forgotten. The product of our concrete psychophysical activity thus attains a certain autonomy with respect to us and to the fleeting nature of our mental activity. But not only does this allow us to enter into contact with our own past, it also allows us to communicate knowledge to others. On condition, it must be added, of properly mastering the language of expression.

The detached and incarnated products are transborder zones between cognitive subjects. Perception of the material nature of signs, perception of the ink stains on paper or paint stains on canvas, become the starting point for a cognitive process of communication via a concrete process. This individual psychophysical process leads to the understanding (individual psychic object) that occurs within the individual who is reading or watching. Material objects thus co-occupy the inter-individual borders of abstract notions. However, for Twardowski, the material expression of psychic products that drives triggered processes does not ultimately decide the success of this transbordering state. This is especially so with respect to scientific theories. The decisive factor in scientific domains is the logical and intersubjective dimension of validation within the collective belonging to a given domain.¹¹

In this sense, the objects of study within, especially, the humanities and social sciences [*Geisteswissenschaften*] can be considered as *products* (explicitly by Twardowski—*artificial artefacts*), resulting from a certain type of individual and collective psychophysical activity, namely, the collective search for scientific truth. The materially fixed (i.e., primarily in publications and in archives) abstract notions (“detached notions”) would then constitute the objects of the humanities.

This heuristic attitude contributed to the success in Poland of philosophy and theory in the humanities and social sciences prior to the war, and not only among members of the Twardowski school itself: most Polish academics before the war shared this basic heuristic attitude, it was in the spirit of the times. We might mention, for example, Florian Znaniecki, one of the future founders of the Chicago School of sociology, or Czesław Znamierowski. The latter was definitely not a student of Twardowski but he was the first to develop “social ontology” [Znamierowski 1921]—as now developed by Searle. In the paper he delivered at the Congress, Chwistek, although also not a student of Twardowski, spoke just like him in stating that letters and logical signs are “physical” objects “such as stones or birds”. Fleck, again not a disciple of Twardowski but still a true Leopolitan in spirit, talked about a “collective” in the same heuristic vein.

Twardowski’s philosophical school undoubtedly constitutes a form of positivism. Firstly, because it fits naturally into the lineage of positivism

11. The partisans of *full logistics* (Łukasiewicz and Leśniewski), which will be elaborated upon below, did not hold this view, instead considering this dimension to be psychological.

qua analysis of the sciences (Mach, Helmholtz, Ostwald, Poincaré, Duhem, Einstein). But it is also positivist in a more general manner, as seen, for example, in Kotarbiński, who liked to claim that it was difficult for anyone even slightly reasonable and philosophically minded not to be a positivist.

We should also mention an article by Zygmunt Zawirski (1882-1948), published in 1935 in *Revue de synthèse* (published in Paris by H. Berr, L. Febvre, P. Langevin and A. Rey), entitled: “Les tendances actuelles de la philosophie polonaise” (“Current Trends in Polish Philosophy”). Zawirski¹² wrote about different philosophical trends in Poland, mentioning *scientific philosophy* as the most powerful movement, which he described as “revisionist”. Its intention was to reform traditional philosophy according to the precepts of logic and, by so doing, to achieve “the ideal of scientific philosophy in a better way than Western positivism did” [Zawirski 1935, 129]. And Zawirski added:

If we abandon the word “positivism”, it is because we realize that it is extremely difficult to determine where positive investigation ends and metaphysics begins. [Zawirski 1935, 130]

5 *Vorkongress*¹³ and Congress in Prague (1934)

The idea of the Congress for Scientific Philosophy was born during discussions between Rougier and Reichenbach in Berlin in 1932. A couple of days before the 8th International Congress of Philosophy in Prague, held between the 2nd and 7th September 1934, a meeting was organized (the so-called *Vorkongress*), attended by a few interested parties. In his foreword, Rougier claims that this was where he suggested that:

The *Congrès de Paris*, in order to fully merit the status of “international”, will have to call on representatives from all those movements that are unified under their shared concern for broaching problems until now reserved for philosophy, considered as a discipline apart, through strictly scientific methods. Full Viennese empiricism, in its latest metamorphosis, limits the specific task of philosophy to being no more than the logical analysis of scientific language. [Actes 1936, I.4]

We must keep in mind that the Viennese had already held two conferences (Prague in 1929 and Königsberg a year later) dedicated to the theme of the unity of science. Among other things, the *Vorkongress* constituted the

12. Zygmunt Zawirski was a philosopher of science specializing in questions related to contemporary physics.

13. The name used by its participants for the meeting that had preceded the Congress in Prague [cf. Twardowski 1997a, II, 362].

provisional organizing committee for the meeting in Paris that would follow in 1935. One of the members of that committee was Łukasiewicz (founder of the Warsaw school of logic).

Also invited to take part in the *Vorkongress* was Kazimierz Ajdukiewicz, who, at the time, was an academic professor in Lvov. We discover from Twardowski's *Journals* of 14th August that Ajdukiewicz was supposed to deliver a lecture on *Polish Positivism* and had discussed it with Twardowski prior to his departure [Twardowski 1997a, II, 356]. The title of the lecture: "Logistical Anti-Irrationalism in Poland" [Ajdukiewicz 1934]. Anti-irrationalism later became the label given to Polish analytical philosophy.

The 8th International Congress of Philosophy in Prague, due to the radicality of the Vienna Circle's program and their (in equal parts) aggressive and technical argumentative style, became an arena for confrontation between logical empiricism and all other philosophical trends. As already mentioned, the confrontation with Husserl's phenomenology was especially intense. Since the publication of *Logical Investigations* [Husserl 1900], Husserl had been claiming his phenomenology was both scientific and rigorous. Both movements claimed to embody philosophical scientificity.

A large French delegation participated in the Congress, among others: Gaston Bachelard, Léon Brunschvicg, Léon Robin, and even André Lalande.

An interesting witness to the proceedings, with respect to our subject here, was Józef Maria Bocheński (1902-1995). Bocheński recalls that the only one not to back down against the formal mathematical and logical attacks of the Vienna philosophers was Husserl's disciple Roman Ingarden.¹⁴ Ingarden, himself also a disciple of Twardowski, had an excellent command of the kind of logical argumentation practiced by the Viennese. In a fierce polemic, Ingarden refused the assertion from the Vienna Circle that a proposition for which there is no method of verification (logic or empiric) has no sense. Ingarden noted that no method existed for verifying this proposition itself and, ergo, the proposition from the Viennese was itself a nonsense. No doubt, the only effective answer for this problem would have been the distinction between language and metalanguage. A work by Tarski which presents this argument was published just a year later [Tarski 1935] and this is how Tarski himself became the main feature of the Paris Congress of 1935.

On the 14th September 1934, Twardowski noted in his *Diary* that Ajdukiewicz had returned from Prague very pleased, particularly satisfied with the *Vorkongress*. It is rather obvious that one of the reasons for his satisfaction was the prominent place and role assigned to the Polish delegation by the Parisian organizers. In all likelihood, Rougier, while observing the proceedings in Prague, realized that the presence of Polish

14. Ingarden provided Husserl with a comprehensive report on those proceedings and attached his own paper. In a letter from the 7th October 1934, Husserl replies: "Vielen Dank für Ihre köstliche Sendung. Sie haben den Wiener Positivismus glänzend, geradezu in klassischer Prägnanz, abgetan" [Husserl 1968, 89].

philosophers would benefit the implementation of his own project for the Congress: on the one hand, explicitly rejecting phenomenology (it was Ajdukiewicz who, during his inaugural speech, listed Husserl—and Bergson too—as non-scientific philosophers), while, on the other, representing a wholly less radical relation to logistics than the Vienna Circle.

In his *Memoirs* [Bocheński 1994], Bocheński says that the Viennese held the (generally older) disciples of Twardowski in high regard in Prague. The Vienna Circle was a young group, while Polish “positivism” was matured, multigenerational, and had already survived confrontation with its own internal logicist dissidence. Within Twardowski’s school, logicist dissidence had reared its head in the person of Jan Łukasiewicz (in the very first generation of his pupils, around the years 1903-1905). It was Łukasiewicz, having become a professor in the mathematics department of Warsaw University after the restoration of Poland in 1918, who created the Varsovian school of logic (Łukasiewicz, Leśniewski, Tarski) and who set the dominating tone for the Varsovian philosophers’ style. We could say that, just as the Vienna Circle represents a fundamental movement in logical empiricism (what Rougier names *intégral*, “full”), so the mathematical logic of Warsaw represents the logicist branch of Twardowski’s school. This is why, in order to distinguish logistics in general from Varsovian logistics (*logistyka*—a very radical epistemological doctrine) we use the expression “full logistics”. Full logistics supports an extremely radical epistemological doctrine. Łukasiewicz preached a mathematical logical analysis of language as the only proper method for conducting philosophy, evacuating any other traditional philosophical issues to the realm of beliefs [*Weltanschauung*]. Leśniewski was the most radical defender of this approach.

6 Logicism in Warsaw

The young Twardowski was enthusiastic about the progress of science and embraced the psychologism of his master, Brentano, with fidelity. Yet his distinction between the content and object of presentations, which he had developed for his *habilitation* (professorial thesis), prepared him for Husserl’s basic argument against psychologism in the sciences, namely the distinction between thinking and what is thought. It is crucial to stress that the first volume of Husserl’s *Logical Investigations* [Husserl 1900] struck the Leopoldian philosophers like a thunderbolt. One of the most affected was the young Łukasiewicz, who immediately set out on an anti-psychologicist crusade. In May 1904, in Lvov, over two sessions of the Polish Philosophical Society (in the absence of Twardowski), Łukasiewicz unsuccessfully presented Husserl’s anti-psychologicist argumentation.

Only in 1907, during the Congress of Naturalists and Doctors, and with the help of Twardowski, did he succeed. At this point—one could claim—

the entire Leopolitan philosophical community abandoned psychologism in logic wholesale. The laws of logic are not laws of psychology, nor are the laws of logic derivable from the laws of psychology. Logic is neither a part of psychology nor is it founded upon it. Logic discovers the objective laws for the interrelation between the truth and falsity of judgments. Psychology understands judgment as *conviction*, while logic studies the objective correlates of judgments. In the wake of the Congress of Naturalists and Doctors in 1907, this was the new way of progressive thinking in Lvov. What the participants at the Congress could not know was that between master and pupil, who together had achieved this reformation, a conflict had also been growing. Łukasiewicz was convinced that not being psychologist in logic meant being a formalist. Already in a paper [Łukasiewicz 1906] published a year earlier, dedicated to the analysis and construction of the notion of *cause*, Łukasiewicz disregarded modern post-Cartesian epistemic theory in its entirety, considering its works to be psychological lucubration. Making “*Arceo psychologiam*” the motto of his paper, Łukasiewicz thus declared *de facto* war on his professor, who was not only developing psychological studies and research in Lvov, but also constructing an original theory for *theoretical psychology*, referring to Duhem’s theory of science. Finally, and most importantly, Twardowski was profoundly convinced that theory of knowledge (precursor to logic) was necessary for philosophy. Even the purest *a priori* sciences could not exist without the psychophysical activity of the scientists practicing those sciences. Twardowski saw psychology, and especially the psychology of thinking, as one of the philosophical sciences and, paradoxically, one of the very first victims of psychologism. He was of the opinion that it is impossible to analyze concepts without even considering judgments. At the same time, Łukasiewicz was demanding the purely logical analysis of concepts and a return to Aristotle or even Plato (as taught by Lotze), a return to “Platonism in quotation marks”. For Łukasiewicz, logic had to replace psychology. This in turn meant that, for Twardowski, psychologism would be replaced by logicism. And this is what Twardowski disagreed with [Miskiewicz 2011].

Łukasiewicz fully developed his anti-philosophical stance after his nomination to the position of professor of mathematics in Warsaw. Logistics became more for him than just a method or language of scientific philosophy. His logistics would become a science, an axiomatic system. At the 2nd Polish Congress of Philosophy in Warsaw in 1927, he presented a kind of manifesto for the logicist reform of philosophy. According to Łukasiewicz, such a logistics neither needed nor implied any *Weltanschauung* or religious tendency. This is also why it would guarantee freedom in science. Consistently dedicated to his ideas, Łukasiewicz, otherwise the closest of all Poles to the Vienna Circle, claimed that even Carnap, who identified only mathematical and protocol sentences as meaningful, had indubitably committed a speculative excess. But, also noteworthy, in analyzing names and statements as inscriptions (not as ideas or *flutus voci*), *full logistics* reveals its genesis in Twardowski’s *theory of actions and products*.

It is impossible not to notice an analogy between the emergence of logicism in Twardowski's school and the emergence, roughly a quarter of a century later, of logicism in the positivism of the Vienna Circle. The first to describe it, on the occasion of the 10th commemoration of Twardowski's death, was his other prominent disciple, Tadeusz Czeżowski (1889-1981):

The collapse of psychologism was connected with a fundamental transformation of the bases of mathematics and logic; a new grasp of the essence of these sciences reached great depths; they had a flowering never before experienced. The result of all this was a phenomenon analogous to the previous psychologism, namely, a logicism in philosophy, i.e., the conception which attributes to logic the dominant role in philosophical speculation just as psychologism attributed it to psychology. This was the position of the Vienna Circle and of its neo-positivistic continuators, undoubtedly the most prominent and liveliest center of philosophical thought between the wars. [Czeżowski 1960, 215]

7 The “Polish semantics”

The fact that it was Ajdukiewicz, a Leopoldian professor, and not a Varsovian professor such as Łukasiewicz, who was appointed leader of the Polish delegation is very significant. Let us turn to Ajdukiewicz:

Speaking for the Polish contingent, I have the honor of hailing the Congress and wishing for its works to meet with fruitful results. Almost all the Polish members of our Congress are disciples of the school known as the Lvov-Warsaw school. This school has dedicated itself, since its first years, to studying philosophy in the light of the scientific method, in the sense that the character of being scientific can only be attributed to the kind of intellectual endeavor that goes beyond the individual conscience in order to become a common good. [...]

Further, we are bound to present only that which we are able to express in intersubjectively comprehensible words and that which we are able to establish and justify, vouching for this justification ourselves. [...] We vouch for a justification when it is accessible to the control of others who may verify or repeat it. A work of the intellect incapable of satisfying these two stated demands could never become ground for collaboration and would have no right to grant itself the name of science. [Actes 1936, I.19]

In his speech, Ajdukiewicz clearly associates himself with the entirety of the Twardowski school's acquired knowledge, meaning the logic and theory of

sciences in their intersubjective dimension. Thus, not only with the world-famous achievements in mathematical logic, already referred to by Russell in his inaugural speech. However Ajdukiewicz claims that the Lvov-Warsaw School had “found in logistics a language that satisfies scientific criteria”. This is a rather broad conception of logistics as a language that serves as a tool, rather than a science in itself, as *logistyka* [full logistics] was for Łukasiewicz. This idea expressed by Ajdukiewicz was perfectly compatible with the idea of scientific philosophy as presented in an introduction by Rougier: *la syntaxe et la sémantique du langage scientifique*:

philosophy constitutes what we have proposed to call *la syntaxe et la sémantique du langage scientifique* [the syntax and semantics of the scientific language] since it constitutes the set of rules that allows for scientific propositions to be formulated and tautologically transformed in to other, equivalent propositions, susceptible to be subject to the control of facts, as a result of the rules of correspondence from our systems of symbols to the real experiences which they symbolize. [Actes 1936, I.8]

8 Conclusion: The Lvov-Warsaw School as a logico-semantic school

We have assessed the impact the Polish presence had on the Congress for Scientific Philosophy in Paris in 1935 from several angles.

From the history of philosophy point of view, we saw that by allocating a significant place to “Polish semantics”, Louis Rougier, the French organizer of the Congress, had forewarned of the reduction of the idea of scientific philosophy to nothing more than the doctrine of the Vienna Circle. Did the Congress, in turn, have a direct impact on the radicality of the Viennese? This is a separate issue. We can nevertheless note that Carnap, for example, was certainly *less* radical after 1935. Though it may be that it was his emigration to the USA (in 1935) and, above all, the demands of his new university career which clipped his radical wings.¹⁵

From the history of Polish philosophy point of view, the Paris Congress found definite resonance in the 3rd Polish Congress of Philosophy, held in Krakow in 1936. Jan Łukasiewicz was chosen to give the opening plenary presentation at this congress. In the context of our subject, it is noteworthy that the focus of Łukasiewicz’s presentation was the heuristic value of mathematical logic in contemporary philosophy, and no longer (as had been the case in previous years) the propagation of his *logistyka* (full logistics) [Łukasiewicz

15. Contrary to Tarski, who quite swiftly attained great academic prestige in California, Carnap struggled to make a name for himself in the USA.

1936]. Questioned by Ingarden during the discussion, Łukasiewicz seems to have softened his stance. He stated that his logistics cannot be reduced to nominalism, that he did not defend a conventionalism, and that it was not true that he categorically rejected the possibility of attaining to knowledge via intuition. Ingarden, who criticized full logistics for its radical formalism, made an allusion to the Viennese by musing that it constituted an obstacle for the analysis of metaphysical questions. In responding, Łukasiewicz clearly differentiated himself from the Vienna Circle by highlighting where the two diverged, as much with respect to his conception of metaphysics as with respect to his conception of the aprioric sciences. He underlined that, for him, even if the propositions of logic cannot be absolutely determined through experiment, they are nevertheless not all equal with respect to their potential experimental implementation. According to Łukasiewicz, there are relations between logical propositions and the experiment.

Yet it was not he but rather Ajdukiewicz who—in an excellent presentation subtitled, “La question de l’idéalisme transcendantal dans l’articulation sémantique” [Ajdukiewicz 1936a]—showed, in concrete terms, what the logistic and semantic reform of philosophy might consist in. And, once again, it was Ingarden who, during the discussion following Ajdukiewicz’s talk, challenged the fundamentals of such a semantic and logistic philosophy. Ingarden contested that the theory of knowledge could be defined as a theory of significations. (Recall that, for Twardowski’s students, significations are understood as significations of material signs/expressions, written or articulated words, and that they are produced as such in individual psychophysical judgments.) With this challenge, the rupture between Ingarden (who was nonetheless close to Twardowski and a critical disciple of Husserl) and the Polish analytic school, as it defined itself in Paris, was set in stone.¹⁶ This is an important fact from the point of view of the history of philosophy, given the growing interest in the English speaking world in Ingarden’s work.

Finally, studying what was communicated by the Polish contingent at the Congress for Scientific Philosophy in Paris in 1935 has no small importance from the point of view of the historiography of the Lvov-Warsaw School itself.

Jan Woleński, one of the School’s principal historians, author of the monumental *Logic and Philosophy in the Lvov-Warsaw School* [Woleński 1985], whose publication in 1985 reignited studies into Twardowski’s school around the world, affirms the existence of two major periods in the School’s history, namely, the preliminary phase in Lvov and the mature (logical) phase in Warsaw. The exceptional accomplishments of the Polish logicians in the 20th century are positive testament to this position (mereology, Tarski’s definition of truth, non-classical logics).

Klemens Szaniawski, a disciple of Ajdukiewicz, stressed in the introduction to his *The Vienna Circle and the Lvov-Warsaw School* [Szaniawski 1989],

16. Ingarden later took part in the Descartes Congress in Paris in 1937. On the 7th July 1937 the *Reichsministerium* denied Husserl the visa needed to participate.

that it was only after Jan Woleński had published his monography [Woleński 1985] that the expression “Lvov-Warsaw School” came “into general use”. By studying the *Actes* of the Paris Congress, we can see, firstly, that already in 1935 this label was in use. What’s more, it was Twardowski’s own disciples who presented themselves under this banner in the context of a grand, international philosophical meeting of minds. Nevertheless, the fact that Ajdukiewicz didn’t capitalize when writing “Lvov-Warsaw school” is certainly neither an error nor a printing typo. Twardowski’s disciples never constituted a group as homogeneous or militant as the Vienna Circle philosophers. However, as the discussions from the Krakow Congress of 1936 also show, they all shared in the project of overhauling philosophy using mathematical logic (logistics) by means of a “semantic therapy”. The idea of a “logical and semantic therapy of philosophy” was formulated during the Krakow Congress by Zawirski. To illustrate this reform, Zawirski turns both to Tarski’s theory of truth and to Ajdukiewicz’s scientific vision of the world. This illustration also encompasses a resonance of the Polish appearance at the Congress for Scientific Philosophy in Paris.

In turning our attention to the Polish presence in Paris in 1936, we arrive at the conclusion that, if we had to choose a qualification that characterizes the Lvov-Warsaw School in its entirety, then it must be the syntagmatic term “logico-semantic”. Let us thus recall the meaning the two components of this term carry.

The Polish analytic school is not only “logical” because of the importance of the achievements of the Polish logicians produced by this milieu, but also because of the importance that inter-war period Polish analytic philosophy attributed to logistics. As we saw above, the term “logistics” has practically disappeared in its philosophical sense today. It is known only to specialists of Russell and historians of Polish philosophy. In both cases though, it is not generally given a meaning that corresponds with the almost universal dimension logistics boasted in the first half of the 20th century (as seen in the *Actes* of the Paris Congress). As has been shown, logistics was then held as a universal tool for the construction and analysis of scientific and philosophical theories. And, in fact, more still. As we can read in Lalande’s *Dictionnaire*, logistics was held up as a potential general instrument of understanding for “intellectual operations valid for discerning what is true and what is false and for proving truth”. Thus, for disciples of the school Twardowski had established, those who took part in the early development of mathematical logic, to practice the logistic analysis of theories constituted one of their common objectives. The importance of this tool to the philosophical sciences was almost universally acknowledged in the conclusions at the Polish Congress of Philosophy in 1936. Logistics was to vouch for the formal scientific validity of theories. It was to enable the formal reform of the philosophical disciplines and scientific theories. It was therefore not out of mere courtesy that Reichenbach, in the inaugural discourse of the 1935 Congress, hailed Poland as the “country where logistics has already long played a leading role in the universities” [*Actes*

1936, I.18]. It is true that Poland is probably the only country where a manual of logistics had already been published in 1915, for the use of autodidacts. [Janiszewski 1915]. And yet, as I have shown above, it is important to insist on the fact that logistics in Poland cannot be reduced to only the *full logistics* of Warsaw and to its anti-philosophical stance.

As regards the semantic dimension of Twardowski's school, it is determined by Twardowski's concept of truth. His treatise "On So-Called Relative Truths" [Twardowski 1900] begins in a quasi-evangelical manner: "The word 'truth' designates a true judgment" [translation by W. A. Miskiewicz & Ch. Stevens]. This definition would determine the semantic dimension of the stance adopted by Twardowski's disciples. In *On Actions and Products* [Twardowski 1997b], judgment is the product of the *action of judging*, and this definition, in turn, sets the general perspective of Twardowski's semantics in the classical definition framework of truth. The Aristotelian definition would be taken up in the scholastic articulation of the famous *veritas est adequatio rei et intellectus*. Twardowski specified the relation of correspondence propositionally: a sentence (*qua* material expression, concrete annunciation) is true if the things it announces exist in the way it announces them. Such an articulation of the classical theory of truth contains a host of paradoxes familiar since Antiquity, beginning with the liar paradox, something which went on to present a constant challenge for Twardowski's disciples. Finally, in 1933, Alfred Tarski introduced into the work he subtitled "On the Concept of Truth in Formalized Languages" the distinction between language and metalanguage as well as the limitation of this definition to formalized languages (in a certain manner at least). This article, in which Tarski denounces the logical error consisting of speaking of a language *in that same* language, lays the foundations for contemporary logical semantics. Tarski recalled, in Paris, that it was Leśniewski, in his own words a philosophical apostate, who first took full cognizance of this confusion¹⁷ as far back as 1920. And yet, in Paris in 1935, Tarski began his presentation with a broader definition of semantics, more fitting with the epistemic approach of the Twardowski school as a whole. As I recalled earlier, this definition includes the classical conception of truth, where "true" signifies "corresponding to reality".¹⁸

The hypothesis that the name of the school, i.e., the Lvov-Warsaw School, is a reference to periodization implies the evolution of the philosophy initiated by Twardowski towards the full logistics of Warsaw and implicitly diminishes the importance of the School's other achievements. Thus, for example, Tadeusz

17. Leśniewski was probably the most formalist of all the Poles and, as he put it himself, an *apostate of philosophy*.

18. [Tarski 1936, III.1]: "Als [...] [unter] Semantik werden wir die Gesamtheit der Betrachtungen verstehen, die sich auf diejenigen Begriffe beziehen, in denen—frei ausgesprochen—gewisse Zusammenhänge zwischen den Ausdrücken einer Sprache und den durch sie angegebenen Gegenständen und Sachverhalten ihren Ausdruck finden. Als typische Beispiele der semantischen Begriffe sind die Begriffe des BEZEICHNENS, des ERFÜLLENS, des DEFINIERENS anzuführen."

Czeżowski's important philosophical activity in Vilna where, among other things, an original philosophy of law was just about to blossom, finds itself geographically, so to speak, eliminated (cf. the work of T. Wasilewski published on the e-LV website <http://www.elv-akt.net/ressources/ressources.php?cat=chercheurs>). Such a teleology, envisaging full formalism as a goal, also excludes from philosophy all the accomplishments of the psychology of knowledge practiced in Lvov (e.g., by Leopold Blaustein). Yet, as was announced in Paris, the semantics of the Twardowski school deals with the relations of language and thought in the light of heuristic activities such as judging, designating, defining, etc. Something which, by means of a cognitive psychology of the processes of scientific research and of perception, also opens the way for cognitive psychology to move towards theory of knowledge.

I would like to finish by recalling that, beyond doctrinal discussions, the logico-semantic school founded by Twardowski (*Twardowszczyzy* as it was called in Poland) was above all an extraordinary academic training devoted to a common ethos of the Dignity of University. The scientific knowledge evoked by Ajdukiewicz in his inaugural speech at the Congress for Scientific Philosophy in Paris in 1935 was intersubjectively both comprehensible and justified, collaborative, verifiable, and reiterable. For the Twardowski School, the university was its privileged place of production.

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Annexe:

The Polish Delegation in Paris in 1935

I. Philosophie scientifique et empirisme logique

I.3. Physicalisme et critique de la métaphysique

- (XV) *Grundgedanken des Pansomatismus*, par M. Tadeusz Kotarbinski
- (XVI) *Ueber Universalismus, Reismus, und Anti-Irrationalismus*, par M. Adam Wiegner
- (XVII) *La lutte contre l'idéalisme*, par M. Léon Chwistek

III. Langage et pseudo-problèmes

III.1. Sémantique

- (I) *Grundlegung der wissenschaftlichen Semantik*, par M. Alfred Tarski
- (II) *Syntax, Semantik und Wissenschaftslogik*, par Mme Marja Kokoszyńska

IV. Induction et probabilité

IV.2. Probabilité

- (VI) *Les rapports de la logique polyvalente avec le calcul des probabilités*, par Zygmunt Zawirski
- (VIII) *La théorie des probabilités est-elle une logique généralisée? Analyse critique*, par Mme Janina Hosiasson

V. Logique et expérience

V.1. Définition et expérience

- (I) *Die Definition*, par M. Ajdukiewicz

V.2. Formalisation de l'expérience

- (VII) *Mengentheoretische Betrachtungsweise in der Chemie*, par M. Eduard Habermann
- (VIII) *Logisches zur Relativitätstheorie*, par M. Léon Chwistek

VI. Philosophie des mathématiques

VI.3. Les Antinomies cantoriennes, la logique intuitionniste et le tiers-exclu

- (VII) *Recherche sur le système de la logique intuitionniste*, par M. St. Jaskowski

VII. Logistique (“Logique” dans les *Actes* [*sic!*])**VII.1. Syntaxe logique**

- (I) *Über den Begriff der logischen Folgerung*, par M. Alfred Tarski
- (IV) *Sur la simplicité formelle des notions*, par M. Adolphe Lindenbaum

VIII. Histoire de la logique et de la philosophie scientifique**VIII.1 Histoire de la Logique**

- (II) *Les bornes de la mathématique grecque et ses fondements spéculatifs*, par M. Jasinowski