

KRZYSZTOF SZLACHCIC
University of Wrocław

**Conventions, Styles of Thinking and Relativism.
Some Remarks on the Dispute between
I. Dąmbaska and L. Fleck***

Abstract

My comments are focused on the debate between Izydora Dąmbaska and Ludwik Fleck. In the course of their debate, which took place in the 1930's, they discussed some basic issues of epistemology, focusing on the problems of the sources of scientific knowledge, objectivity of knowledge, and truth. The aim of the paper is to place their debate in a the historical context and to demonstrate the novelty of Fleck's arguments, especially in comparison with Thomas S. Kuhn's later contribution. I also examine the dominant interpretations of Fleck's theory of knowledge, as well as the reasons for which his philosophical ideas, especially *Entstehung und Entwicklung einer wissenschaftlichen Tatsache* (1935) have fallen into the philosophical oblivion. I argue that Fleck's views, although innovative, were less radical than it is commonly thought.

My comments focus on the polemic that ensued in the 1930s between Izydora Dąmbaska and Ludwik Fleck. The authors involved in it either directly or indirectly referred to the fundamental questions of the theory of cognition: the question of the sources of scientific knowledge, objectivity of knowledge (its communicability), relative nature of scientific knowledge, truth. The small total volume of texts which directly referred to the views of the adversaries as well as the place where the dispute occurred (Lvov, a geographically peripheral part of the "civilised world" at the time) could suggest that this was just a minor episode in the history of thought, not worth mentioning. A slightly more detailed account of some of the circumstances surrounding this event will, I hope, confirm Jan Woleński's opinion that this was a meeting of two different epistemological projects – Dąmbaska's fundamentalism and Fleck's pioneering anti-fundamentalism – that it still possesses

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the qualities of a discussion of quite contemporary authors,¹ and that it occurred in one of the major centres of the philosophical and scientific thought of the West.

It is also worth stressing at the beginning that as the Dąmbska-Fleck debate was going on, there was a quite commonly expressed belief in Lvov that many fundamental questions of epistemology had to be rethought given the results obtained at the time. Similar voices were coming from other centres as well, from Vienna and Warsaw among others. In Lvov itself, for example, Kazimierz Ajdukiewicz – an important figure from Izydora Dąmbska's closest circle – summing up his treatise *The World-Picture and the Conceptual Apparatus* stated that his conclusions could be treated as a significant modification of the *Copernican idea of Kant*.² Ludwik Fleck, an amateur philosopher from outside the Lvov-Warsaw School, called for the adoption of a new programme for practising the theory of cognition, a programme rejecting many of its classic problems,³ while a young professor from the Jan Kazimierz University, phenomenologist Roman Ingarden, proposed a radical reorientation of the entire traditional philosophy.

These were the circumstances in which Izydora Dąmbska was systematically looking for answers to questions concerning the understanding of law in science, the possibility of laws of physics being true, the possibility of overcoming scepticism, the boundary between irrationalism and scientific cognition, the relation between conventionalism and relativism.⁴ Her clash with L. Fleck was in this process a crucial point bringing together threads referring directly to the problem of incommensurability of scientific theories and epistemological relativism. The matter needed rethinking also because in the 1930s K. Twardowski's 1900 diagnosis⁵ seemed insufficient anymore. Concluding his reflections on the so-called relative truths, Twardowski said that the wide spread of relativist views did not mean that they had any theoretical underpinning, that they could be justified.⁶ New arguments in favour of relativism, put forward by, among others, some advocates of conventionalism, as well as the broadened scope of the meaning of the term required new references. What may be described as a characteristic manifestation of these new tendencies was the voice of Leon Chwistek, who was active in Lvov in the 1930s and who was notably one of the few authors talking favourably about L. Fleck's epistemological ideas. This is what wrote about relativism:

¹ J. Woleński, *Szkola lwowsko-warszawska w polemikach* [*The Lvov-Warsaw School in Polemics*] (Warszawa 1997), p. 194.

² Cf. K. Ajdukiewicz, *The Scientific World Perspective and Other Essays, 1931–1963*, J. Giedymin (ed.) (Dordrecht–Holland–Boston 1978), p. 86.

³ L. Fleck, 'Zagadnienie teorii poznawania' ['The Problem of Epistemology'], *Przegląd Filozoficzny*, 39 (1936), pp. 3–37; cf.: *Cognition and Fact. Materials on Ludwik Fleck*, R.S. Cohen, Th. Schnelle (eds.) (Dordrecht–Boston–Lancaster 1986), pp. 79–112.

⁴ The issues listed here come from the titles of I. Dąmbska's works published in Polish in the 1930s.

⁵ K. Twardowski, *O tak zwanych prawdach względnych* [*On the So-Called Relative Truths*], [in:] *Księga Pamiątkowa Uniwersytetu lwowskiego ku uczczeniu pięćsetnej rocznicy fundacji Jagiellońskiej Uniwersytetu krakowskiego* (Lwów 1900) [repr. in: K. Twardowski, *Wybrane pisma filozoficzne* [*Selected Philosophical Writings*] (Warszawa 1965), pp. 315–316].

⁶ Twardowski assumed that what was characteristic of the relativists was their readiness to acknowledge the existence of "relative truths".

[...] relativism is regarded as a socially dangerous doctrine. On the other hand, *absolute duty, absolute goodness and beauty, and absolute police regulations* are seen as the foundations of a wise social organisation.

[...]. The history of the customs of all periods and all countries shows that absolute criteria are almost always applied to others and only rarely to oneself. I think, however, that those people who apply them consistently to themselves are the most dangerous, because they believe that, being without sin, they have the right to throw stones at others.

Interpreting relativism as an opportunistic doctrine which allows us to accept the theory that is beneficial at a given moment involves mixing the concept of internal conviction with a cliché that has been uttered.

The fact that we see various possibilities does not mean that we are going to deviate from our own path. This would happen, if we considered our path to be the only one, because we affirm each deviation as an unavoidable necessity.

Common sense is needed to expose hypocritical arguments dictated to us by a *longing for getting to know the absolute truth* [last emphasis mine – K.S.]”.⁷

Parties to the dispute

Izydora Dąmbska and Ludwik Fleck may be considered to be part of the same generation.⁸ Both graduated after WWI from the Jan Kazimierz University in Lvov. Dąmbska studied philosophy (Professor Kazimierz Twardowski’s Philosophical Seminar) and Polish, while Fleck studied medicine. After graduation, until the outbreak of WWII they moved in different circles: she was associated with philosophy,⁹ first as Twardowski’s assistant, then as a teacher in a grammar school;¹⁰ he worked in laboratories (bacteriological laboratories), initially under Rudolf Weigl and after a few years as an independent researcher.¹¹ Their meeting in philosophy was possible also because Fleck had been interested in the issues of the theory of cognition since the 1920s and in the 1930s he emerged as a competent scholar whose articles were accepted by *Przegląd Filozoficzny*, a periodical associated with

⁷ L. Chwistek, *Granice nauki* [*The Boundaries of Science*], (Lwów – no date given (book published in 1935, quoted after: L. Chwistek, *Pisma filozoficzne i logiczne* [*Philosophical and Logical Writings*], vol. II (Warszawa 1963), pp. 228–229.

⁸ I. Dąmbska lived between 1904 and 1983, L. Fleck – between 1896 and 1961.

⁹ Years later I. Dąmbska mentioned the following philosophers – in addition to her master K. Twardowski – who had influenced her philosophical development as well as choices of research topics: M. Wartenberg, K. Ajdukiewicz, R. Ingarden, W. Witwicki, H. Elzenberg, M. Schlick, W. Tatarkiewicz, T. Czeżowski and T. Kotarbiński (cf. I. Dąmbska, ‘Podziękowanie’ [‘Acknowledgment’], *Ruch Filozoficzny*, 36 (1978), p. 127).

¹⁰ Detailed information about Professor Dąmbska’s moving life story is to be found in a book edited by J. Perzanowski, *Izydora Dąmbska 1904–1983* (Kraków 2001).

¹¹ Fleck’s life is less well-known. The basic facts are presented in, e.g. W. Sady, *Fleck. O społecznej naturze poznania* [*Fleck. On the Social Nature of Cognition*] (Warszawa 2000).

Twardowski's school. He published his first article on epistemology written entirely by himself in 1927.¹² That he was not a typical amateur interested in philosophy and sociology of knowledge can be seen in his subsequent publications from the mid-1930s: a study entitled *Entstehung und Entwicklung einer wissenschaftlichen Tatsache*,¹³ presenting a highly original concept of knowledge, as well as two long articles: *O obserwacji naukowej i postrzeganiu w ogóle* [*Scientific Observation and Perception in General*]¹⁴ and *Zagadnienia teorii poznawania* [*The problem of Epistemology*]. These were the works that provoked a reaction from I. Dąmbska, who devoted a part of her article *Czy intersubiektywne podobieństwo wrażeń zmysłowych jest niezbędnym założeniem nauk przyrodniczych?* [*Is the Intersubjective Similarity of Sense Perception a Necessary Presupposition of the Exact Sciences?*]¹⁵ to a criticism of Fleck's views. This situation is probably the main reason why Fleck is treated as a *critic* of the Lvov-Warsaw School of philosophy,¹⁶ the third generation of which was represented by I. Dąmbska. In my opinion, this is not a precise diagnosis. It is misleading, because it blurs the real diversity of views within Twardowski's school and suggests that Fleck was opposed to the entire school. In some important respects, the position of the author of *Genesis and Development of a Scientific Fact* coincided with, for example, K. Ajdukiewicz's views from the first half of the 1930s, which are not, after all, presented as *criticisms* of the Lvov-Warsaw School. If we were to look for a group of scholars whose views Fleck opposed, we could point to the Vienna Circle and its supporters.¹⁷ I think that Fleck's position is sufficiently encapsulated by the remark that he was a "freelancer" in the philosophy of the period. He was an amateur who was able, in an extraordinary manner, to use his own research practice as well as reflections of sociologists and philosophers¹⁸ to formulate an alternative description of the development of scientific knowledge. The "extraordinary" nature of Fleck's achievements as an epistemologist was recognised by the philosophical community

¹² L. Fleck, 'O niektórych swoistych cechach myślenia lekarskiego' ['On some Specific Features of the Medical Way of Thinking'], *Archiwum Historii i Filozofii medycyny oraz Historii Nauk Przyrodniczych*, 6 (1927), pp. 55–64 (transl. in: *Cognition and Fact. Materials on Ludwik Fleck*, pp. 39–46).

¹³ Published in Basel in 1935 [transl.: L. Fleck *Genesis and Development of a Scientific Fact* (Chicago–London 1979)].

¹⁴ *Przegląd Filozoficzny*, 38 (1935), pp. 57–76; cf. *Cognition and Fact. Materials on Ludwik Fleck*, pp. 59–78.

¹⁵ *Przegląd Filozoficzny*, 40 (1937), pp. 288–294. The subject of the article had been earlier presented by Dąmbska at the 3rd Polish Philosophical Congress in 1936. Fleck's polemical reply: 'W sprawie artykułu p. Izydory Dąmbskiej w *Przeglądzie Filozoficznym*' ['In the Matter of the Article by Mrs Izydora Dąmbska'], *Przegląd Filozoficzny*, 41 (1938), pp. 192–195.

¹⁶ Cf. e.g. S. Borzym, *Panorama polskiej myśli filozoficznej* [*A Panorama of Polish Philosophical Thought*] (Warszawa 1993), pp. 243–244.

¹⁷ The remark is valid with the proviso that this applies to the early stage of the Viennese's views.

¹⁸ R. Merton stresses the substantial influence of W. Jerusalem, a sociologist of knowledge, with whose works Fleck became familiar during his stay in Vienna. Fleck himself also mentions other sociologists, e.g. E. Durkheim and his school, L. Lévy-Bruhl and L. Gumplowicz. For T. Schnelle, important points of reference for Fleck's thought in Lvov were the views of K. Twardowski, L. Chwistek and K. Ajdukiewicz.

only several decades later. The circumstances which led to this revision can be described as a miracle even by non-believers:¹⁹ after years of complete neglect, in *The Structure of Scientific Revolutions* T. Kuhn briefly mentioned Fleck's inspiring role in his search for the right approach to the mechanisms of scientific cognition.²⁰ The popularity of Kuhn's historicism gave a strong impetus – as a kind of side-effect – to the studies of the original concept presented in *Entstehung und Entwicklung einer wissenschaftlichen Tatsache* and to the work on its translations into other languages.

Elements of the theoretical background of the dispute

An assessment of Dąmbska's and Fleck's contributions will be facilitated, if we refer to the solutions of some philosophical problems, which were a point of reference in the discussion about relativism and, as it was put in the following decades, the problem of incommensurability of scientific theories.

Without getting into a systematic overview of the ideas discussed in Lvov,²¹ I would just like to point to elements of various positions that shaped the Lvov polemicists, especially I. Dąmbska. In my opinion, of particular importance are the following: K. Twardowski's solution to the problem of relative truths, A. Tarski's approach to truth in deductive sciences, the radical programme of consolidating knowledge proposed by the Vienna Circle, and K. Ajdukiewicz's original reception of French conventionalism. These conceptions can be regarded as triangulation towers of sorts, helpful in determining the shape of the field of theoretical disputes in Lvov in the 1930s.

TWARDOWSKI.

In an article written in a period when the Lvov-Warsaw School was being formed, Twardowski describes relativism as a stance acknowledging the existence of the so-called relative truths, i.e. "[...] judgements that are true only under certain conditions, with some reservations, thanks to some circumstances; thus,

¹⁹ Here is one element of this chain of coincidences describing the fate of Fleck's book in an account by R. Merton: Fleck's book "[...] was published in 640 copies. [...]. About 200 were sold; nearly half of the copies were destroyed in Leipzig during the war, while the rest – about 200 copies – were eventually recycled in 1966, when the publisher lost all hope of ever selling them. We do not know who bought these 200 copies; we know, however, that no fewer than 7 copies from the first Swiss edition are available in public libraries in the United States [...] as well as university libraries", with two copies being available on the east coast (Princeton University and Harvard University, where T.S. Kuhn worked). Cf. *Introduction*, [in:] R. Merton, *Teoria socjologiczna i struktura społeczna* [*Social Theory and Social Structure*] (Warszawa 2002), p. 11. (As we can see, this is also an unintentional commendation for the generosity of people making decisions concerning the funds for the purchase of new books for the best American university libraries and for us Poles this is an opportunity for some deep reflection). Kuhn, who in 1949 or 1950 was checking one of the footnotes in Reichenbach's work, would have been unable to get to know the Lvov doctor's concept without it.

²⁰ The circumstances in which Kuhn discovered Fleck's book are described in e.g. T. Kuhn, *Foreword*, [in:] L. Fleck, *Genesis and Development of a Scientific Fact*, pp. VII–XI; and R. Merton, *Teoria socjologiczna...*, pp. 10–12.

²¹ Detailed information about I. Dąmbska's circle can be found in J. Woleński's works; cf. e.g.: *Filozoficzna szkoła lwowsko-warszawska* [*The Lvov-Warsaw Philosophical School*] (Warszawa 1985).

such judgements are not true always and everywhere”,²² and argues that there are no such relative judgements; on the contrary “[...] each true judgement is always and everywhere true, therefore, it follows that judgements that were to be true not always and not everywhere but only under some conditions and in some circumstances are not, never have been and never will be true”.²³ For Twardowski, of key importance is the distinction between “utterance” (statement) and “judgement”, and indication that the relativists’ fundamental error was to equate judgement and its linguistic expression – statement (utterance). According to Twardowski, judgements and not statements are carriers of truth. Judgements are mental (psychological) creations²⁴ and, consequently, absolute truth can be attributed to them (they are absolutely true). The act of judging occurs *in concreto* and there is no doubt as to its result (truth). This is not the case with statements understood as linguistic equivalents, “images” of judgements, specific judgements. The form of statements (e.g. being brief, generalised formulations) often makes it possible to interpret them in a way that makes the “natural bond” between a specific judgement (uttered at a specific time and in specific conditions) and a statement that expresses it go unnoticed. Consequently, the same underdetermined, elliptical statement is associated with two different judgements and sometimes it is referred to as true, sometimes as false.²⁵ In Twardowski’s view, the threat of relativism can be thus easily avoided – it is enough to formulate statements carefully and, in the case of an elliptical statement, to remember that veracity or falsity is attached to the judgement accompanying that statement.

In Twardowski’s reflections examples of statements that are candidates for being termed relative truths illustrate our daily experiences. The author devotes little attention to scientific cognition. He notes briefly that all scientific hypotheses and theories “[...] always bear a lesser or greater degree of probability and are never certain”, i.e. that none of them “[...] can be said to be true, but always only that it is probable”.²⁶ Therefore, the relativists cannot take examples from science to illustrate the view concerning the relativity of truths, because science does not use them.

Expanding the perspective, the author of the article about relative truths claims that relativism is a logical consequence of epistemological subjectivism, a view whereby “[...] judgements which we, people, pronounce, may be true only for us; a judgement that is true only for us, may be and very likely is wrong for creatures capable of passing judgements, but organised differently from

²² K. Twardowski, *O tak zwanych prawdach względnych* [*On the So-Called Relative Truths*] of 1900, quoted after: K. Twardowski, *Wybrane pisma filozoficzne* [*Selected Philosophical Writings*] (Warszawa 1965), p. 315.

²³ *Ibidem*, p. 316.

²⁴ I would like to note that Twardowski’s concept of judgements is not a variant of psychologism, as my abbreviated account might suggest.

²⁵ In the example discussed by Twardowski, an individual considering the statement “it is raining” uttered at a specific time in Lvov on the Castle Hill will have no doubt recognising it as true (or false). This statement in connection with the judgement it expresses will remain such (respectively, true or false) for ever.

²⁶ K. Twardowski, *O tak zwanych prawdach względnych*, pp. 326, 327. Echoes of this conclusion can be found in Dąmbska’s works from the 1930s.

us”.²⁷ Twardowski believes that this view can be defended at the cost of rejecting one of the foundations of our thinking, the logical principle of contradiction. However, this leads to the end of all rational argumentation.

Attempts to explicate the term of truth were made in the following years by many members of Twardowski’s school. In this respect, worthy of particular note in the inter-war period were J. Łukasiewicz, S. Leśniewski and A. Tarski.

In a work²⁸ directly preceding the Dąmbska-Fleck polemic, 32-year-old Tarski specifies the meaning of the concept of truth for the formalised languages of deductive sciences. The author manages to remain in compliance with the classical intuitions of understanding truth and give a formally correct definition of a true statement, a definition that does not lead to antinomy. Tarski’s result makes us realise, for instance, that of one of the conditions of becoming free from the liar’s antinomy is a precise distinction between two level of language, the so-called objective language, to which the analysed sentence *p* belongs, and a metalanguage, within which we state whether or not *sentence p is true*. While this operation can succeed in the case of specific “artificial” languages (from deductive sciences), it cannot be carried out in a natural language (treated as a universal language). Consequently, when following Tarski’s reflections, we cannot successfully free ourselves from antinomy in analyses involving a natural language and using the concept of truth.

THE VIENNA CIRCLE.

Lvov philosophers were in close, often direct contact with the Vienna Circle and its satellites. Izydora Dąmbska was a good example of such relations – in 1930 she went on a scholarship to Vienna, taking part, for example, in meetings of Schlick’s Seminar. Later she also took part in a unity of science congress under the patronage of members of the Circle. Fleck’s case is not as good an example of this opinion, though he, too, followed the Viennese’s proposals very closely.²⁹

It is not easy to present a concise, non-stereotypical description of the Vienna Circle given the variety of positions of the Circle members and the surprisingly quick evolution of the views of the various authors, the best example of which are R. Carnap’s successive works from the 1920s and 1930s. On the other hand, it is easier to say how the Circle was perceived in Lvov among Twardowski’s

²⁷ *Ibidem*, p. 328.

²⁸ A. Tarski, *Pojęcie prawdy w językach nauk dedukcyjnych* [*The Concept of Truth in the Languages of Deductive Sciences*] (Warszawa 1933). As I intend just to provide an outline of the circumstances surrounding the Dąmbska-Fleck polemic, I will limit myself only to a brief note concerning Tarski’s achievement. The consequences of Tarski’s great result were varied and have been systematically described over the last few decades. Given the nature of the Dąmbska-Fleck polemic, I would like to note the presence of M. Kokoszyńska among Dąmbska’s closest friends. Kokoszyńska, inspired by Tarski’s works, suggested around 1936 that the concept of true statement be relativised to the meaning we assign to statements (*cf.* M. Selinger, *Źródła semantyki Tarskiego w poglądach przedstawicieli szkoły lwowsko-warszawskiej* [*The Sources of Tarski’s Semantics in the Views of Representatives of the Lvov-Warsaw School*] (Wrocław 2005).

²⁹ Paradoxically, it was to a remark made by H. Reichenbach, who was associated with the Circle, in one of his works that Fleck owes the initiation of a process of bringing him back from obscurity after WWII.

associates and followers, on the basis of the approaches to logical empiricism in K. Ajdukiewicz's and I. Dąmbska's publications.³⁰

When talking about the Circle, in addition to calls for the elimination of metaphysics from knowledge, the place and role of philosophy, and the idea of the unity of knowledge the authors also took into account and critically commented on the "technical measures" used to achieve these objectives. Dąmbska in particular saw the criterion of the sense of expressions as a too restrictive a solution, one that led to cases of a special kind of relativism (the same statement may make sense and be nonsensical at the same time). On the other hand, she took a favourable view of Schick's description of "being empirically given" – that which is expressible is cognisable, i.e. structures and relations, and not the sensual contents between which these relations are established. Drawing on this conviction, Dąmbska distanced herself from Carnap's early concept of uniform system of knowledge that can be reduced to sensual experiences and qualities, as the ultimate foundation of cognition (*Der logische Aufbau der Welt*). She saw in it a poorly justified forecast introducing the readers into the "uncertain ground of predictions", because the qualities themselves (sensation contents) "[...] are not, as we know, cognisable".³¹

Just as lukewarm was the reception in Lvov of the idea of limiting philosophical studies of science to investigating the logical syntax of the scientific language (idea promoted by, e.g. Carnap).

AJDUKIEWICZ.

The radical conventionalism advocated by K. Ajdukiewicz in the 1930s³² is one of the most frequently discussed concepts of the Lvov-Warsaw School. That is why let me refrain from a more detailed description of the various elements of Ajdukiewicz's construct and just note that he presents a directive concept of meaning and considers the consequences of the existence of languages with specific characteristics: which are connected and closed. As he sees it, the acceptance of these conditions makes it possible to make H. Poincaré's earlier position of "moderate conventionalism" more radical and to claim that "Of all the judgements which we accept and which accordingly constitute our entire world-picture, *none* is unambiguously determined by experimental data; every one of them depends on

³⁰ I. Dąmbska, 'Kolo Wiedeńskie. Założenia epistemologiczne Kola i niektóre ich konsekwencje' [*The Vienna Circle. The Epistemological presuppositions of the Circle and Some of Their Consequences*], *Przegląd Współczesny*, 125 (1932); K. Ajdukiewicz, *Kierunki i prądy filozofii współczesnej* [*Movements and Trends in Contemporary Philosophy*], first published in 1937, reprinted in: *Język i poznanie* [*Language and Cognition*], t. 1 (Warszawa 1985), pp. 249–263; K. Ajdukiewicz, *O tzw. neopozytywizmie* [*On the So-Called Neopositivism*], first published in 1946, reprinted in: *Język i poznanie*, t. 2 (Warszawa 1985), pp. 7–28. I have selected some of the threads from the texts listed above.

³¹ I. Dąmbska, 'Kolo Wiedeńskie...', p. 384.

³² It is presented in his articles from 1934: 'Sprache und Sinn' [*Language and Meaning*], *Erkenntnis*, 4 (1934), pp. 100–138; 'Das Weltbild und die Begriffsapparatur' [*The World-Picture and Conceptual Apparatus*], *Erkenntnis*, 4 (1934), pp. 259–287, and 'Naukowa perspektywa świata' [*The Scientific World-Perspective*], *Przegląd Filozoficzny*, 37 (1934), pp. 409–416; cf. also: K. Ajdukiewicz, *The Scientific World Perspective...*, pp. 35–66, 259–287, 111–117. I would like to note that the author abandoned the position of radical conventionalism in 1936 under the influence of A. Tarski's arguments.

the conceptual apparatus we choose to use in representing experimental data. We can choose, however, one or another conceptual apparatus which will affect our whole world-picture.

Otherwise put: only so long as an individual uses *fixed* conceptual apparatus, will experimental data compel him to accept these judgments. He might employ another conceptual apparatus, on the basis of which the same experimental data would no longer compel him to accept these judgments, for in the new conceptual apparatus, the original judgments do not occur at all”.³³ The term “conceptual apparatus” denotes in the quoted fragment “the set of all meanings which attach to the expressions of a closed and connected language”.³⁴ Ajdukiewicz’s definition of a closed and connected language has an important ramification: two conceptual apparatuses either are identical or have no common elements.

The position of radical conventionalism also leads to a conclusion that whereas it is possible to assess the truth of judgements with a specific conceptual apparatus by means of which we express the world, it is not possible to say whether judgements coming from a different, “alien” conceptual apparatus are true (or false). Even if a sentence from a different conceptual apparatus, say A_2 , is an expression identical in its form to A_1 , recognised by us, from “our” conceptual apparatus, for fundamental reasons there is no possibility of deciding whether the judgement associated with it is true or not. Closed and connected languages provide us with separate, incomparable world perspectives. It is not possible to translate statements from one world perspective into statements from another world perspective. Though there is a single method for verifying the truth of judgements, its results (determining whether or not the various judgements are true) are relativised to the conceptual apparatus within which the process takes place. Our “[...] own unfavourable judgment of the sentences of a foreign world-perspective there stands a conflicting positive judgment on the part of one, who make use of the conceptual apparatus corresponding to that world-perspective”.³⁵ There is no impartial side: “The epistemologist therefore is not suited for the role of an impartial umpire in the struggle between two world-perspectives for the title of truth”.³⁶

The Dąmbska-Fleck Polemic

Dąmbska’s critical stance on Fleck’s concept emerged in her analyses of the problem of intersubjective nature of scientific cognition presented in the already mentioned article *Czy intersubiektywne podobieństwo wrażeń zmysłowych jest niezbędnym założeniem nauk przyrodniczych?*.³⁷ Taking as her starting point Gor-

³³ K. Ajdukiewicz, *The Scientific World Perspective...*, p. 67.

³⁴ *Ibidem*, p. 69.

³⁵ *Ibidem*, p. 116.

³⁶ *Ibidem*, p. 117. Ajdukiewicz questions the possibility of the existence of a connected universal language which, unlike the particular perspectives provided by the various cases of conceptual apparatuses, would make it possible to compare various “true” perspectives. On the other hand, a non-connected universal language would be regulated in various meaning fields by different logics “totally unconnected with each other”.

³⁷ The article was part of a series of studies of epistemology and philosophy of science written

gias' argument, "Even if something can be known about, knowledge about it cannot be communicated to others",³⁸ the author suggested the following alternative:

"[...] 1) either the follow-up to Gorgias' argument is false and nothing can be said about the intersubjectivity of science on its basis; 2) or it cannot, in principle, be decided on and, thus, logically, is useless as a premise of reasoning; 3) or it is true and from it stems a denial of the intersubjectivity of cognition and thus either impossibility of science or change of the view of its essence; 4) or, in the end, it is true, but the intersubjectivity of science does not assume its negation. The first option is accepted more or less dogmatically by various epistemological movements opposing solipsism, while the third option leads to agnosticism, sometimes irrationalism in the theory of cognition. The second and the fourth options, in a narrower formulation, will be the subject of the present reflection. A question arises: if it were true that the argument concerning the intersubjective similarity of sensations is false or cannot really be settled, then would it also be true that statements of natural sciences are devoid of intersubjectivity? Or, to put it more simply: is the intersubjectivity of empirical statements determined by the necessarily intersubjective similarity of sensations? The task of further reasoning will be to attempt a justification of a negative answer".³⁹

Reflecting on a broader spectrum of possible solutions to the problem indicated, Dąmbska argues for an approach acknowledging that the objective cognitive value of the fundamental tasks of natural sciences does not depend on ascertaining the intersubjective similarity of sensations.⁴⁰ She notes at the same time that this view can be found in various versions of conventionalism (e.g. in Popper's *Logik der Forschung*, Poincaré's *Value of Science*). Conventionalist solutions point out, among others, that objectivity, understood here as communicability, should be linked not to qualities but to their relations, structural properties of things. Though each subject has its "own", (perhaps) unique sensation contents, the relations between these contents can be described linguistically and communicated to others.

by the author in the 1930s. They included: *Prawa fizyki wobec postulatów prawdziwości twierdzeń naukowych* [*The Laws of Physics and the Postulate of the Truth of Scientific Statements*], [in:] *Księga Pamiątkowa PTF we Lwowie, 12 II 1904–12 II 1929* (Lwów 1931), pp. 183–198; *O prawach w nauce* [*On Laws in Science*] (Lwów 1933), p. 65; 'Irracjonalizm a poznanie naukowe' ['Irrationalism and Scientific Cognition'], *Kwartalnik Filozoficzny*, 14 (1937–1938), pp. 83–118, 185–212; 'Konwencjonalizm a relatywizm' ['Conventionalism and Relativism'], *Kwartalnik Filozoficzny*, 15 (1938), pp. 328–337; 'O sceptycyzmie i o niektórych sposobach przezwyciężenia go' ['On Scepticism and on Some Methods of Overcoming It'], *Przegląd Współczesny*, 18 (1939), pp. 96–105.

³⁸ To be more precise, Gorgias' argument with a modified follow-up: we can never know whether other people experience the same or similar meaning contents, when they utter the same sentences as we do (I. Dąmbska, *Czy intersubiektywne podobieństwo...*, p. 288). In this form the argument could just as easily be attributed to Fleck.

³⁹ *Ibidem*, pp. 288–289.

⁴⁰ *Ibidem*, p. 291.

The author's argumentation in this matter is brief, but there is no doubt that she regards all conventionalist solutions as insufficiently consolidating the intersubjectivity of empirical statements. They do not provide a satisfying resolution to the sceptic's argument quoted at the beginning. Dąbska, therefore, strengthens this position, saying that "[...] generally, people who are normal in the given conditions of perception are willing to recognise the same statements".⁴¹ This effect is determined by a regulator of sorts which the non-human world of Nature provides for our organisms: "Where people deal with empirical material, freedom to act is limited on pain of nature's sanctions. Freedom to act ceases as does freedom to judge".⁴²

Dąbska regards Fleck's position as being irreconcilable with this view. She recalls his argument that only people using the same thought style can communicate. Members of two collectives using different thought styles attach different meanings to words which at the same time are to be found in languages used in both styles. Strictly speaking, there is no possibility for representatives of two different collectives to communicate. The author's counter-argument suggests the existence of one universal "style of thinking" which is the basis of communication between representatives of different groups: "The most inspired prophet, poet or mystic in some life situations finds a common language with the clear-headed naturalist and belongs to the same style with him. In what situations? In those in which they are not asleep and must seriously take life conditions into account. This shared human thought style is a style in which humans resort to observation judgements".⁴³

Fleck's reply is more extensive than the remarks addressed to him and contains criticism of all important points of Dąbska's position. He questions:

(i) Dąbska's perspective emphasising the significance of observation statements, their role ("applicability") in the knowledge system. In empirical sciences they do not play any fundamental role, for the more deeply we analyse them, the more observation content in the adopted meaning "shrinks" and "disperses". According to Fleck, observation statements, on which the Dąbska focuses, are, in fact "[...] non-deliberate fiction, because we cannot utter a statement that would contain only observation data".⁴⁴ Such statements could be included in analyses, if they were not treated "[...] in complete separation from how and by whom they are arrived at".⁴⁵

(ii) Izydora Dąbska's concept of the observer, "normal people at large", as well as the way the observer functions. Fleck claims that this type of construct is a chimera, anachronistic school fiction. The very term "normal people" is vague

⁴¹ *Ibidem*, p. 292.

⁴² *Ibidem*, p. 293. In this part of her reflections Dąbska points to the biological concept of cognition developed by W. Witwicki and makes it clear that this is not a manifestation of an acceptance of the position of the pragmatists claiming that the truth of the basic empirical statements is determined by their usefulness (*ibidem*, p. 294).

⁴³ I. Dąbska, *Czy intersubiektywne podobieństwo...*, p. 293.

⁴⁴ L. Fleck, 'W sprawie artykułu P. Izydory Dąbskiej...', p. 193.

⁴⁵ *Ibidem*.

and useless.⁴⁶ Moreover, he questions Dąmbska's view, quoted earlier, that "[...] generally, people who are normal in the given conditions of perception are willing to recognise the same statements". Counterexamples to this argument are complemented by Fleck by an explanation of conditions that must be met, if we are to be convinced that a similar observation has occurred: "[...] people need to undergo special training or very artificial, laboratory conditions of perception need to be created".⁴⁷ The first possibility means creation of a community with a specific thought style (which Dąmbska criticised, when she analysed Fleck's concept); in the case of the second, too "[...] we cannot talk of the authorship of statements or full responsibility for their recognition by individuals undergoing the test: we are dragging them along the track we have set; no wonder then that they all follow the same line".⁴⁸ According to Fleck, it is our specific questions that force similar answers.

(iii) The idea of grounding the objectivity of cognition in a biological mechanism. This line of argument is ineffective, for, as Fleck claims, there is no independent authority that would allow us to impartially assess competing knowledge systems, the way they deal with the world, to establish what biological benefit they bring to those who use them: "[...] regress to applicability as a biological test of some cognition is ostensible, because ascertaining the effectiveness or ineffectiveness of an action (resulting from this cognition) is also a cognitive act".⁴⁹

In concluding his reply to Dąmbska's remarks, Fleck refers directly to the question of truth. (It is, I think, first of all a reaction to the her words that "[...] Dr Fleck seems to be wrong in his recently formulated view [...] that [...] no style can be singled out by the theory of cognition as one that unlike others leads to the truth rather than falsehood or incomprehensible delusions"⁵⁰). The author of *Genesis and Development...* briefly comments on two aspects of this issue.

First, he rejects the possibility of interpreting his position as an example of "relativising the truth".⁵¹ The context allows us to assume that Fleck rejects the above mentioned concept of "relative truths", which is a synonym of one of the meanings of relativism. He points out that the same term has different meanings in statements uttered in different experimental conditions (historical contexts) and, consequently, we are dealing with statements with different contents⁵². Conse-

⁴⁶ *Ibidem*, p. 192. Fleck gives varied, contrasting examples, intending to show the fictitiousness of this type of concepts.

⁴⁷ *Ibidem*.

⁴⁸ *Ibidem*.

⁴⁹ *Ibidem*, p. 194. The fragment I have quoted is illustrated with the following examples: "all superstitions, old wives' tales, all knowledge of past centuries, e.g. astrology and alchemy, all medieval medicine, and, finally, the knowledge of primitive peoples that seems fantastical to us – all these views have their own "evidence" resulting from predictions coming true or disappointments explained, just like our natural sciences. All seem applicable to their believers – otherwise, who would believe in them?" (*ibidem*).

⁵⁰ I. Dąmbska, *Czy intersubiektywne podobieństwo...*, p. 293.

⁵¹ "This is not sophistry or relativised truth" (*cf.* L. Fleck, 'W sprawie artykułu P. Izydory Dąmbskiej...', p. 195).

⁵² The grounds for such an interpretation can be found in the following fragment of the polemic: "I don't claim that alchemical gold was real gold in our meaning of the term. I claim that al-

quently, his position on this matter is similar to that of Twardowski, who criticised relativists.

Second, he focuses on the question about the “truth”, accuracy of his own stance – he wonders whether his approach to epistemological issues is indeed “wrong” as Dąmbska sees it? It is thus a “metamethodological” problem. Fleck’s reply resembles in this fragment a typical argumentation of a defender of the realist interpretation of the scientific theory in the realism-instrumentalism dispute. The author points out that his theory of styles makes it possible to study and explain questions from the history of scientific cognition, with regard to which other, “traditional” approaches are helpless. Where competitors “laugh helplessly” or, in another case, “stand helplessly in admiration”, Fleck’s sociology of knowledge is to provide a description of the mechanisms of knowledge. The text of the reply ends with a characteristic declaration: “*The theory of thought style frees us from many outdated superstitions and reveals huge areas worthy of investigating. In this sense, that is for its liberating and heuristic role, I believe it is true*”.⁵³

Comments on the polemic between Izydora Dąmbska and Ludwik Fleck usually do not take into account the aspects indicated here. It is referred to in a generalised manner as an early example of dispute over epistemological relativism, which in its mature form emerged a quarter of a century later, when it accompanied T. Kuhn’s and P. Feyerabend’s statements. From this point of view, Fleck may, of course, be regarded as a relativist, while Dąmbska – an anti-relativist (fundamentalist). The position of the author of *Genesis and Development...* is in this respect radical in the sense that his concept of thought styles was not limited only to scientific communities. It took into account various collectives: from those associated with different academic disciplines, through those associated with crafts, to religious or political collectives.

Such qualifications of Fleck’s position often include incorrect explanations of his concept of truth (including the truth of scientific cognition theses). A typical, distorting comment claims that “[...] the notion of truth in the classical sense loses its significance in Fleck’s reflections”.⁵⁴ This is especially strange, given the fact that Fleck’s writings give no grounds for such interpretations. His declarations are unequivocal: the truth of a judgement is ascertained within a specific thought style and this means the conformity of what the judgement in question states with the state of things, the facts. Although a thought style models, co-defines the shape of what a scholar will regard as “empirical reality”, this observation does not denote agreeing that truth is relative. As Fleck writes, “Truth is not »relative« and certainly not »subjective« in the popular sense of the word. [...]

chemists understood gold, elements of the matter in general, differently from us”, *ibidem*. In another article, which I. Dąmbska knew, he wrote that “each formulated thought, which is destined for real use, bears the sign of the producing unit and address of destination. [...] an abstract sentence, without the sign of the producing unit and without the destination and circulation, is incomplete and does not suit the purpose of the considerations of rational epistemology” (*Zagadnienie teorii poznawania; cf. Cognition and Fact...*, p. 85).

⁵³ *Ibidem* (italicised by Fleck).

⁵⁴ Z. Cackowski, ‘Epistemologia Ludwika Flecka’ [‘Ludwik Fleck’s Epistemology’], *Studia Filozoficzne*, 5–6 [198–199] (1982), p. 67.

One can never say that the same thought is true for A and false for B. If A and B belong to the same thought collective, the thought will be either true or false for both. But if they belong to different thought collectives, it will just *not be the same thought*. It must either be unclear to, or be understood differently by one of them. Truth is not a convention, but rather (1) in historical perspective, an event in the history of thought, (2) in its contemporary context, stylized thought constraint”.⁵⁵ Perhaps the fact that Fleck persistently emphasises the necessity of remembering the historical circumstances in which our diagnosis of whether analysed statements were true (or false) took place – which is referred to at the end of the reflection quoted above – makes it difficult for many readers to notice that he uses the notion of truth in a classical way.

A natural question arises whether Dąbbska’s critical remarks addressed to Fleck might not be addressed also to Kazimierz Ajdukiewicz, an advocate of radical conventionalism? Although Fleck’s position is not customarily associated with Ajdukiewicz’s concept (primarily because the nature of analyses conducted by both authors is different), yet the “ultimate meaning” of their concepts in the perspective of the Dąbbska-Fleck polemic is similar. Consequently, the answer to the initial question should be in the affirmative: Dąbbska’s criticism may also be referred to the author of *Obraz świata i aparatura pojęciowa*. However, this is not the place for a detailed explanation of this observation. I would only like to note that although the highlighted differences in the nature of analyses of cognition (scientific knowledge) presented by Ajdukiewicz and Fleck are a fact, the recognition of their existence does not lead to a negation of a number of significant conclusions of the opponent’s position.⁵⁶ These differences are usually treated in the philosophy of science as indicators of radically different metamethodological orientations, which in research practice lead to incomparable pictures of science. Without disregarding them, I would only like to note that the presence of these differences in Fleck’s and Ajdukiewicz’s works does not prevent us from acknowledging that the two scholars followed different paths to arrive at similar conclusions. Generally speaking, we can see them, for example, as supporters of the thesis of incommensurability of scientific theories and – more broadly – one of the variants of constructivism and relativism.⁵⁷

⁵⁵ L. Fleck, *Genesis and Development of a Scientific Fact* (Chicago 1981), p. 100.

⁵⁶ For example: The primacy of “synchronous” analysis in the presentation of the position of radical conventionalism does not exclude the diachronic approach preferred by Fleck. They can be considered to be complementing each other. Similarly, Ajdukiewicz’s use of simple logical tools, which made his presentation “technical”, precise (in the eyes of a typical reader), does not disqualifies the use of a free, “essay-like” form of narrative to describe the mechanisms of cognition, a form adopted by Fleck (and vice versa). What can also be regarded as complementary are approaches whereby one author tries to idealise, construct a model of cognitive practice in developed empirical sciences (Ajdukiewicz), while the other describes its mechanisms, giving many historical details and examples from his own research practice. (Strictly speaking, Ajdukiewicz’s concept was a kind of intellectual game using the directive concept of meaning and prediction of the evolution of the languages of natural sciences.).

⁵⁷ For remarks about Fleck cf. W. Sady, *Spór o racjonalność naukową. Od Poincarégo do Laudana* [A Dispute about Scientific Rationality. From Poincaré to Laudan] (Wrocław 2000).

Forerunners and epigones

Comments on Fleck's and Ajdukiewicz's reflections referred to here repeatedly include the question about the similarity of their concepts to the famous positions represented by English-speaking authors and treated as models. Scholars discuss, first of all, the similarities to T.S. Kuhn's analyses of the mechanisms of scientific cognition (*The Structure of Scientific Revolutions*, 1962) and W.V. Quine's conventionalism (first of all in its version from the 1951 the article *Two dogmas of empiricism*). Sometimes after establishing that there are similarities in diagnoses included in works of, say, the forgotten Fleck and the famous Kuhn, they express their hope that philosophers will review their opinions and will be more just in their assessment of the achievements of both authors. Such an attitude is, in my opinion, natural and proper⁵⁸, provided that it stays as close as possible to what J. Woleński expressed in his studies of analytical philosophy, including the Lvov-Warsaw School: "In philosophical matters, it is important who wrote what and when".⁵⁹ When a scholar is casual in his treatment of *what* the compared authors claim, the efforts to give the earlier work its due lead to another simplification and eventually turn into an inept attempt to defend "one's own".

In the case of a description of the "thought style concept" – "paradigm concept" relation, it is especially easy to give way to stereotypes, given Kuhn's declaration pointing to *Genesis and Development of Scientific Fact* as one of the sources of his position. As a result, we have to deal with statements like "Fleck is a kind of early Kuhn", and in a more brutal version simple formulas along the lines of "Kuhn copied his concept of the development of science from Fleck". These opinions generally treat both concepts as identical, as presenting the same model of scientific knowledge. They are accompanied by an obvious intention of indirectly enhancing Fleck's stature.⁶⁰ This is not, I think, the best way to give his ideas appropriate recognition. It loses sight⁶¹ of the unique nature of the Lvov doctor's concept, which, in my opinion, can be regarded as original and inspiring, also when we bear in mind that today's market of ideas includes Kuhn's proposal as well. Fleck's solutions may for many readers compete with those from *The Structure...* The above mentioned simple formulas give Fleck an advantage of time (which I would not dismiss!). I would like to stress that several decades before Kuhn the Polish author proposed – within the tradition of the sociology of knowledge – a mature and at the same time ground-breaking model of scientific development, a model

⁵⁸ If only because it gives us a more precise picture of the evolution of ideas in Western thought and revises the far too simplified history of philosophy. In the social dimension, it is also an expression of self-defence of those philosophical circles that use "local", lesser known languages.

⁵⁹ J. Woleński, *Epistemologia [Epistemology]* (Warszawa 2005), p. 10. A view expressed in a work drawing to a large extent on the results of representatives of the Lvov-Warsaw School.

⁶⁰ Finding a similarity between Fleck's and Kuhn's concepts is not always an opportunity to express satisfaction. According to Jerzy Perzanowski, Fleck, who otherwise made a number of interesting observations, nevertheless began a period of decline of this branch of modern philosophy of science, which emphasises the sociological entanglement of science. Professor Dąmbska deserves the credit also because she was the first to have noticed the threat and began to fight it (cf. *Izydora Dąmbska, 1904–1983*, p. 86).

⁶¹ It does not take it into account, because it does not notice it?

that was not “just” revived in Kuhn’s later work. The treatment of Fleck’s thought suggested here stems from a pragmatic view that attempts to change the public perception of Thomas Kuhn as the *founding father* of the historical-sociological movement in philosophy of science are examples of hopeless cases. The starting point is, as I have mentioned, the conviction that we are dealing with two models of knowledge that differ in significant respects. Obviously, this is not the place for detailed arguments supporting this view. Perhaps it will be enough to indicate that in addition to similarities in epistemological assumptions and a number of detailed diagnoses⁶², there are profound differences as well. For instance, in Fleck’s works we will not find structures that play the role of paradigms, i.e. extraordinarily stable over time, practically unquestionable theories with their ways of application within the so-called normal science (institutional science). On the contrary, in Fleck’s model “everything flows”, knowledge systems do not maintain a “stable form” but are continuously transformed. Researchers themselves can be (and often are) eternal revolutionaries, unlike Kuhn’s typical researcher, representing normal science, who is a born conservative.

I will finish this digression about the mechanisms of reception of one of the results of Polish philosophy by indicating the similar fate, in some respects, of Ajdukiewicz’s conventionalism referred to earlier. From the perspective taking this concept into account, it would be difficult to say that e.g. Quine’s conventionalism presented in the collection *From a Logical Point of View* is highly original. I believe that from this perspective we can strengthen the view of H. Jakubiec and J. Woleński, who in conclusion of an article comparing selected concepts of Quine and Ajdukiewicz (including conventionalism) state that “[...] Ajdukiewicz’s and Quine’s views were shaped totally independently, though Ajdukiewicz was the first to express them, which is understandable, as he had been born 15 years earlier”.⁶³ I believe it is highly likely that Quine was directly inspired by Ajdukiewicz in late autumn 1933 (during a six-week visit to Warsaw of the author of *Two Dogmas of Empiricism* during his stay in Europe on a scholarship).⁶⁴ It also seems almost certain, given his lasting interest in the results obtained by the Viennese, that Quine read the 1934 edition of *Erkenntnis* containing articles presenting radical

⁶² The more important among them include the acknowledgement of the significance of historical perspective in the explanation of the phenomenon of science, the rejection of cumulativism, the adoption of the sociological perspective in analyses of the mechanisms of the creation and transformation of knowledge, the emphasis on the role of educational training in shaping members of the scientific community.

⁶³ H. Jakubiec, J. Woleński, ‘Ajdukiewicz i Quine’, *Zagadnienia Naukoznawstwa*, 3 [75] (1983), p. 320.

⁶⁴ In Quine’s autobiographical works from the mid 1980s we can find testimonies to the importance of his contacts with Polish logicians and philosophers. Quine says, for example, that his five-month stay in Vienna, improving his German, and prepared him for what turned out to be intellectually the most fruitful months he experienced (i.e., six weeks in Prague and six weeks in Warsaw) [cf. L.E. Hahn, P.A. Schilpp (eds.), *The Philosophy of W.V. Quine* (La Salle 1988), p. 12]. In Prague Quine was taught by R. Carnap, while in Warsaw his teachers were, first of all, the logicians Tarski, Leśniewski and Łukasiewicz. He also met Ajdukiewicz, Kotarbiński, Kuratowski, Sobociński and Jaśkowski. Cf. also W.V. Quine, *The Time of My Life. An Autobiography* (Cambridge 2000), p. 104.

conventionalism. Incidentally, a more glaring case of an idea repeated by Quine and introduced earlier by another author (a friend of his, I would like to add) is Carnap's approach to the mechanism of eliminating the conflict between knowledge (theory) and experience. A dozen or so years before the publication of *Two Dogmas of Empiricism* R. Carnap presents⁶⁵ a highly precise exposition of an issue that began in Duhem's and Milhaud's conventionalism and was later called the Duhem-Quine thesis. If we limit our comparison of Carnap's and Quine's texts to an analysis of the thread associated with Duhem's position⁶⁶ it will be difficult to point out any differences – with the exception of the language, which is freer in *Two Dogmas* – between the positions of the two authors. The similarity of ideas is so great that it would not be an overstatement to say that Quine's fragment is only a stylistically touched up excerpt from Carnap's *Logical Syntax of Language*.⁶⁷ However, these circumstances go unnoticed by the public and Quine himself is commonly regarded as a Columbus who discovered this problem.

Fleck the outlaw

Izydora Dąmbska did not respond publicly to Fleck's reply. She did not continue the polemic in the following years. She did not mention the name of her adversary in her later works, which – it would seem – provided a natural opportunity for a discussion of or at least a brief reference to Fleck's position.⁶⁸ It would be difficult, in my opinion, to provide well-grounded hypotheses explaining this state of affairs. I do not think that the simplest explanation would suffice – that Fleck convinced her with his slightly ironic reply and Dąmbska concluded that her accusations were refuted.⁶⁹ Thus, we can only speculate. With the growing interest in the author of *Genesis and Development...*, there have been quite a few speculations over the last thirty years. These hypotheses have had a broader ob-

⁶⁵ R. Carnap *Logische Syntax der Sprache* (Wien 1934).

⁶⁶ While being in Prague Quine attended Carnap's lectures and read *Logische Syntax der Sprache* as the text was coming out of Ina Carnap's typewriter (cf. *The Philosophy of W.V. Quine*, p. 12).

⁶⁷ Cf. R. Carnap, *The Logical Syntax of Language*, §82 and W.V. Quine, *Two Dogmas of Empiricism*, first fragment of §6.

⁶⁸ Among the larger works published in the 1960s and 1970s (some of them after the publication of the Polish translation of *The Structure of Scientific Revolutions*, which mentions Fleck) I would point to *Dwa studia z teorii naukowego poznania* [*Two Studies from the Theory of Scientific Cognition*] (Toruń 1962), *O narzędziach i przedmiotach poznania* [*On the Tools and Objects of Cognition*] (Warszawa 1967), *Znaki i myśli* [*Signs and Thoughts*] (Warszawa-Poznań-Toruń 1975), *O konwencjach i konwencjonalizmie* [*On Conventions and Conventionalism*] (Wrocław 1975). Another, very characteristic example of "forgetting" Fleck is a Dąmbska's post-war article 'Czterdzieści lat filozofii we Lwowie, 1898–1948' ['Forty Years of Philosophy in Lvov, 1898–1948'], *Przegląd Filozoficzny*, 44 (1948), pp. 14–25, in which she fails to mention Fleck, although she does mention people who did not specialise in philosophy, did not held any academic posts and did not have achievements comparable to those of Fleck. Similarly, K. Ajdukiewicz's overview *Kierunki i prądy filozofii współczesnej*, an article from 1937, does not mention Fleck either. There is also a fragment devoted to an orientation which could be attributed to him – historicism.

⁶⁹ There is not even a weak confirmation of such an explanation in Dąmbska's writings published immediately after the polemic with Fleck and referring to the problems tackled in the dispute.

jective: to explain not only I. Dąmbaska's case but also that of her own circle – the silence of Twardowski's school vis-à-vis Fleck's oeuvre.⁷⁰

Particularly influential has been B. Wolniewicz's attempt to rationalise Fleck's absence⁷¹. Wolniewicz has suggested two complementary explanations of this situation.

Explanation I, referring to socio-political circumstances: "The spirit of the Lvov-Warsaw School was thoroughly liberal. [...] The liberal-rationalist belief in the fundamental and universal possibility of communication between people is questioned by Fleck. [...] Thus, the fact that Fleck was ignored could be explained as a case of socio-psychological denial of an ideological content threatening the stability of one's own system of views".⁷²

This hypothesis fails to convince for two reasons. Wolniewicz does not take into consideration Fleck's characteristic declarations that encourage us to see in his work the "faith" similar to the one he attributes to Twardowski's followers. His theory of thought styles is to be a panacea making communication between people possible. Here is an example from Fleck's creed that comes from the polemic with Dąmbaska: "One cannot examine views in isolation from the totality of culture of a society in a given period. The starting point must be a collective of people living together, and this method leads first of all to the sociology of thinking, which, capable of being a comparative science, encompasses the most general approaches. In the period we are approaching, a period of synthesis and disappearance of particularisms, it will be unavoidable. Specialisation and diversity within society are growing and will continue to grow. There is no way that attempts at brutal uniformisation of humanity will have a lasting effect. Communication is possible only on the basis of results of the comparative method: Only in this way can a shared thought collective emerge, free through criticism, general through tolerance".⁷³

Another critical observation is associated with Wolniewicz's inconsistency in his argumentation. He precedes Explanation I with a comment on a natural hypothesis that the reason why Fleck was ignored was his relativism. The author believes this hypothesis is insufficient. In his opinion, this motive could not have been important given the fact that a version of relativism was at that time advocated by K. Ajdukiewicz, an important representative of the School. So if, according to Wolniewicz, those associated with the School tolerated a radical conventionalism thesis that researchers using two different world perspectives could not communicate, then he cannot suggest at the time an explanation the essence

⁷⁰ Let me note here that shortly before WWII Fleck started a polemic with another physician interested in the theory of science, Tadeusz Bilikiewicz. Some statements were reprinted in a supplement to the Polish edition of *Genesis and Development of a Scientific Fact*; cf. also S. Symotiuk, 'Dwie socjologie wiedzy. Polemika Flecka z Bilikiewiczem' ['Two Sociologies of Knowledge. Fleck's Polemic with Bilikiewicz'], *Studia Filozoficzne*, 10 [215] (1983), pp. 129–143.

⁷¹ B. Wolniewicz, 'Ludwik Fleck i filozofia polska' ['Ludwik Fleck and Polish Philosophy'], *Studia Filozoficzne*, 5–6 [198–199] (1982).

⁷² *Ibidem*, p. 80.

⁷³ L. Fleck, 'W sprawie artykułu P. Izydory Dąmbaskiej...', p. 195.

of which is the recognition of the living presence of faith indicated in the quoted fragment⁷⁴ in this circle.

Explanation II, indicating, according to Wolniewicz, the main reason why Fleck was disregarded, says that “the methodological standard of what was deemed [in the Lvov-Warsaw School – K. S.] worthy of discussion in the theory of cognition was extremely high. [...] Fleck’s writings were unable to meet the standards of logical clarity, which Polish philosophy at the time proposed and defended. In this respect his ideas were simply not mature enough theoretically”.⁷⁵

I find this view hard to defend. In order to avoid all possible misunderstandings, we should note at the beginning that within Twardowski’s school there was a very substantial tolerance for research topics tackled and for scholars’ philosophical orientations.⁷⁶ Therefore, Fleck’s original interests – epistemology with a strong component of a historically oriented sociology of knowledge – could not have been the reason why he was deliberately excluded from the Lvov philosophical community. The key question is thus an assessment of this “methodological standard” of his philosophical writings. I would like to juxtapose Bogusław Wolniewicz’s critical opinion with a view that if we take into account the type of issues analysed, Fleck’s works did not contrast negatively with works by established authors associated with the School. They contained a vividly stated problem, clearly formulated theses of the author’s positive stance, extended argumentation supporting them, sometimes very rich historical material illustrating his reasoning. All this was presented in the spirit of “critical rationalism” and not, for example, Husserl’s phenomenology or Bergson’s intuitionism (i.e. traditions from which members of the School clearly distanced themselves). Fleck felt, of course, that his research and results were something new, but he wanted to demonstrate this novelty by showing respect in his argumentation to classical logic and presenting his readiness to resolve the dispute by referring to empirical facts.

So what could this “theoretical immaturity” of Fleck’s position mentioned by Wolniewicz mean? I am unable to answer this question. On the contrary, given the stage of development of the sociology of knowledge at the time, I would be willing to call Fleck’s works, primarily *Genesis and Development...*, surprisingly “theoretically mature”. If we also bear in mind that they were written by an author who was an amateur philosopher and wrote them in his spare time, they could be called extraordinary, unique. This opinion is confirmed by the fact that they have stood the test of time. Decades after they were written, they are seen not only as

⁷⁴ B. Wolniewicz, *Ludwik Fleck...*, pp. 79–80. (Cf. also the author’s statement: “The world is not a Tower of Babel: we can always eventually communicate and sort things out”; *ibidem*).

⁷⁵ *Ibidem*, p. 81.

⁷⁶ Here is Dąmbska’s characteristic, retrospective opinion about the School: “The Lvov philosophers [members of Twardowski’s school – K.S.] [...] did not share any single doctrine, any uniform worldview. What constituted the basis of the spiritual community of these people was not the content of science, but the way, the method of philosophising and a common scientific language. That is why the school could produce spiritualists and materialists, nominalists and realists, logicians and psychologists, philosophers of nature and theorists of art (cf. I. Dąmbska, *Czterdzieści lat filozofii we Lwowie, 1898–1948*, p. 17). This view is featured in monographs devoted to the School.

documents from the history of thought. On the other hand, Fleck's treatises, like any other works describing aspects of the real world, cannot obviously be regarded as complete works. Works that can no longer be made more precise, be corrected under the influence of criticism. However, I do not suspect that in this last respect Wolniewicz, who criticised Fleck, would have had a different opinion.

When it comes to the language, I would find Fleck's texts attractive as literature,⁷⁷ marked as they are by passion, sometimes also irony. The composition of *Genesis and Development...* remains an open question. I understand those who criticise it, suggest a change in the order of the threads to achieve a more systematic, "school-type" of argumentation. Nevertheless, it would be difficult to argue that in their present form Fleck's theses are "obscure".

B. Wolniewicz's criticism, included in the argumentation marked here as "Explanation II", is complemented by an example illustrating the presence of logical errors in Fleck's book (i.e. "failure to observe the standards of logic"). I would like to conclude by saying that this author's detailed argumentation is based on a questionable interpretation of one the expressions from *Entstehung und Entwicklung...* Its rejection neutralises the statement that this fragment of Fleck's work is illogical.

⁷⁷ My opinion is based on Fleck's works written in Polish and on the Polish translation of *Entstehung und Entwicklung...* It must be noted that there are quite a few voices that the German language makes Fleck's book difficult to read (*cf.* e.g. Kuhn's and Merton's works quoted here). Perhaps the author is justified to some extent by the fact that he was looking for new terms to express his novel ideas.