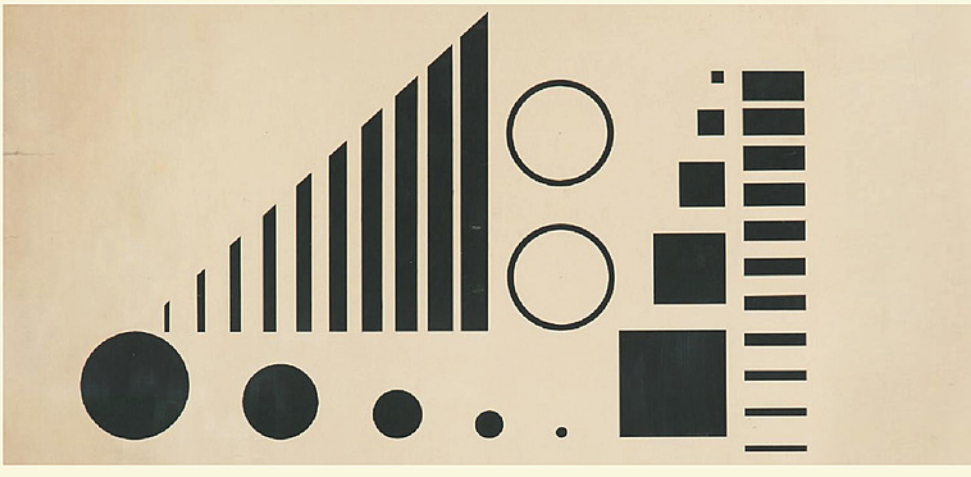
A New Organon

Science Studies in Interwar Poland

Edited by
Friedrich Cain and Bernhard Kleeberg



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A New Organon: Science Studies in Poland

Friedrich Cain and Bernhard Kleeberg

On 24 August 1965, at the Opening Session of the 11th *International Congress of the History of Science* in Warsaw, the crystallographers and historians of science John D. Bernal and Alan L. Mackay lined out ways towards a new discipline: a *Science of Science*. However, before they would set out into the deep history of the field, they did not only attribute the coinage of the term, but also the core concept of a Science of Science to two Polish authors who had published a pivotal text thirty years earlier.[1] Indeed, in 1935, Maria Ossowska and Stanisław Ossowski had offered a distinct vision in Warsaw.[2] Their idea of science studies lived to be republished several times in international journals – Bernal and Mackay themselves mentioned a 1964 edition in *Minerva* – and made its way into the self-narratives of the big science studies projects of the Cold War. Today, it again serves as tacit background of projects around the globe.[3] Yet, these references usually miss the original context of 1935, i. e., the extremely vivid science reflection in the intellectual landscape of the Polish interwar state.

This is where the present volume ties in, trying to open a view on this often-neglected landscape to complement studies in the history of science, or, more specifically, in the historical epistemology of science studies. Obviously, basing the shaping of society or the modern (nation) state on scholarly planning and scientific utopias is an old idea in Western traditions. Expertocratic regimes have been outlined over and over – from Aristotle and Plato to Bacon, from Condorcet to Saint-Simon and Spencer – and they became particularly elaborate in the 20th century.[4] All their political agendas presupposed a particular understanding of what scientific knowledge is, and how it can be applied. They were intricately linked to specific epistemologies that re-

[1] John D. Bernal and Alan L. Mackay: "Towards a Science of Science," *Organon*, vol. 3 (1966), 9–17: 9.

[2] ► **IN THIS VOL.** Maria Ossowska and Stanisław Ossowski: "The Science of Science" (1935), i. e. "Nauka o nauce," *Nauka Polska*, vol. 20 (1935), 1–12.

[3] See below, section III, footnote 88.

[4] For an overview see Kerstin Brückweh, Dirk Schumann, Richard F. Wetzell and Benjamin Ziemann (eds.): *Engineering Society. The Role of the Human and Social Sciences in Modern Societies, 1880–1980*, Basingstoke 2012; Thomas Etzemüller (ed.), *Die Ordnung der Moderne. Social Engineering im 20. Jahrhundert*, Bielefeld 2009; Theodore M. Porter, *Trust in Numbers. The Pursuit of Objectivity in Science and Public Life*, Princeton 1995; id., Dorothy Ross (eds.), *The Modern Social Sciences*, Cambridge e. a. 2003, esp. part IV.

flected the sciences in particular and knowledge in general. The plural is crucial, for over time a great number of approaches have emerged, drawn from fields as diverse as philosophy, psychology, sociology, and history, but also based on considerations on the proper organization of the scientific endeavor.

Besides the standard heroes in the history of these thoughts, there were others in the more Eastern areas of Europe, receiving far less attention, though sometimes highly original and sharing the same agenda of reflecting on the production, spreading and use of knowledge. Not only academic philosophy, but national projects of the late 19th century in particular praised science as harbinger of wealth and freedom. Emphasis was often added where nations were not in control of the territories they claimed. Research and learning became a mandatory way to form a nation's future through education, and as such they came to form an object of study themselves.[5] As the First World War sealed the decline of the continental empires in Europe, many initiatives took the geopolitical changes as a point of departure into a new, bright future, of which science and its mastering formed a crucial part.

This volume presents the telling example of an initiative from 1920s and 1930s Warsaw. In the Polish capital, the alleged top scientists of the nation assembled to discuss the foundations, the funding and future of their trade, thus creating a distinct version of science studies. And distinct it was: Apart from several congresses held on the organization of science between 1918 and 1939, the so-called *Koło Naukoznawcze* – the Science Studies Circle – organized regular meetings for over a decade. Established in 1928, its proceedings were published in two journals – the Polish *Nauka Polska* and the *Organon*, which collected original articles in French and English along with translations from Polish. However, for a long time, the layout of a *Science of Science* (Pol. nauka o nauce) by Maria Ossowska and Stanisław Ossowski was treated as a sole peak of the initiative.

The volume opens this intriguing chapter of science studies from 1920s and 1930s Poland to a wider audience. There are good reasons to do so: Firstly, science studies from interwar Warsaw as presented here stand out as an interdisciplinary project with a highly integrative agenda. Instead of concentrating on one angle, the programmatic aim was to integrate philosophy, psychology, sociology, and history in one new discipline that would not only study science, but also give directives for its proper organization on all levels and thus lay the grounds for a knowledge-based society. Although the project of a science of science did not survive the German oc-

[5] Cf. Martin Kohlrausch, Katrin Steffen and Stefan Wiederkehr (eds.): *Expert Cultures in Central Eastern Europe. The Internationalization of Knowledge and the Transformation of Nation States Since World War I*, Warsaw 2010, and with emphasis on the historical narratives and national economies ch. 8 in Balács Trencsényi, Maciej Janowski, Mónika Baár, Maria Falina and Michal Kopeček: *A History of Modern Political Thought in East Central Europe, Vol. I: Negotiating modernity in the 'Long Nineteenth Century'*, Oxford 2016, esp. 318–319. For the Polish case see Jan Surman: "The Contexts of Polish Positivisms, 1840s–1900s," in: *The Worlds of Positivism. A Global Intellectual History, 1770–1930*, ed. by Johannes Feichtinger, Franz L. Fillafer and Jan Surman, Cham 2018, 239–272.

cupation of Poland and the following socialist rule, Ossowska and Ossowski have been credited for the term and their original design. As mentioned above, the original article has been reprinted several times, and often referred to as a founding stone of science studies. Its actual context, however, fell into oblivion.

Secondly, as much as the materials from interwar Warsaw add to a general understanding of the genealogies of science studies, they also help to re-focus the history of systematic enquiry into the cultures of science. Not only in Poland, but also in the many new states founded in the former imperial spaces of Central, Eastern and Southeastern Europe, science figured as a great hope for technological, social, and political development with presidents, prime ministers, and ministers often being scholars themselves. The corresponding initiatives have only marginally been reflected in the history of (planned) scientification in the 20th century.[6] One reason may have been a language barrier, of which the Varsovian organizers were conscious themselves in 1936 when founding the *Organon* as a second, international revue to reach out to an international community.

Thirdly, the volume aims to draw attention to the highly diverse and productive epistemological landscape that Poland was during the 1920s and 1930s. On the one hand, it shows a certain strain of development of the Warsaw-Lwów School of philosophy and logic founded by Kazimierz Twardowski.[7] On the other hand, and quite different from the logicians Florian Znaniecki, the rising star of international sociology and founder of the first Sociological Institute in Poland, also contributed to Nauka Polska several times, at least in the early years. Interwar Poland was also the place where Ludwik Fleck developed his comparative epistemology, which did not make the impact on contemporary science studies that it has made since the 1970s. However, it was widely reviewed at the time, in Nauka Polska as well.[8]

Finally, this volume makes available new source material for studies in historical and political epistemology that aim at the moral economies[9] of the Warsaw initiative

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[6] For a first overview see *The Past and Present of Political Epistemologies of (Eastern) Europe*, Special Section in *Historyka. Studia Metodologiczne*, vol. 49 (2019), ed. by Friedrich Cain, Bernhard Kleeberg and Jan Surman.

[7] Twardowski was former student of Franz Brentano and teacher to logician Jan Łukasiewicz, who in turn was not only an active figure in the Science Studies Circle, but also a teacher to young Alfred Tarski. For an overview cf. Jan Woleński: *Logic and Philosophy in the Lvov–Warsaw School*, Dordrecht 1989.

[8] Jan Dembowski: "[Review] Ludwik Fleck: Entstehung und Entwicklung einer wissenschaftlichen Tatsache, O obserwacji naukowej i postrzeganiu w ogóle, Zagadnienie teorii poznawania," *Nauka Polska*, vol. 24 (1939), 435–439. Dembowski reviewed Fleck's monograph *Entstehung und Entwicklung einer wissenschaftlichen Tatsache*, Basel 1935 and two articles: "O obserwacji naukowej i postrzeganiu w ogóle," *Przegląd Filozoficzny*, vol. 38 (1935), 58–76 and "Zagadnienie teorii poznawania," *Przegląd Filozoficzny*, vol. 39 (1936), 3–37. For context cf. Michał Kokowski: "The Science of Science (naukoznawstwo) in Poland: Defending and Removing the Past in the Cold War," in: *Science Studies during the Cold War and Beyond*, ed. by Elena Aronova and Simone Turchetti, New York 2016, 149–176: 151, and recently Sylwia Werner: *Lemberger Moderne. Studien zur Entstehung einer Wissenskultur*, Paderborn 2023.

[9] Cf. Lorraine Daston: "The Moral Economy of Science," *Osiris* (2nd Series), vol. 10 (1995), 2–24.

in particular, and similar concepts of scientific self-reflection in general. It assembles a selection of 17 texts (part II) that were originally published in the journals Nauka Polska and Organon. Some context to this material is given in three research articles that initiate a close reading in part I. The third part contains aries comments that assess the contemporary value of the original texts. The remainder of this introduction shall give an overview of the general historical context of the edited texts and introduce the source material briefly before finally laying out some paths of reception.

1. A brief history of Science Studies in interwar Warsaw

In April 1920, the aula of Warsaw University housed the *1st Congress for the Organisation and Progress of Polish Science* (Pol. I. Zjazd, poświęcony sprawom organizacji i rozwoju nauki polskiej). For four days, more than 500 delegates from all parts of Poland discussed the fate of Polish scholarship. The congress was organised by the *Academic Council* (Pol. Dział Naukowe) of a private foundation from Warsaw, the *Kasa Mianowskiego* (Engl. Mianowski Fund).[10] As the organisers hoped, the congress would start sustainable discussions on the development, organisation, and needs of scholarship in Poland.[11]

The II. Polish Republic, to whose development the congress meant to contribute, had been founded only eighteen months before. On 11 November 1918, Marshal Józef Piłsudski had assumed power in Poland, declaring an end to 123 years of partition. The territories, which had been under Tsarist, Prussian/German and Austro-Hungarian control since the late 18th century, were united in one sovereign state. After more than a century of non-existence, the newly erect state faced severe challenges, as modern structures had to be built to integrate the peripheries of three imperia. Next to general infrastructure, administration, the legal and the health system, the military had to be organised, and units of measurement, education and scholarship needed standardisation on national level. After the end of foreign, often suppressive rule, the deprivations of Polish scholarly life had to be overcome, and unified Poland had to work out an original programme for the development of science, which would consider the conditions and requirements of the young state. As the organizing committee for the congress made clear in its announcement, genuine scientific production was regarded a basic pillar for the "healthy development of a national organism" – for practical reasons, but even more for its values. Not only should the congress unite

[10] The full name was *Kasa Pomocy dla osób pracujących na polu naukowym im. d.ra med. Józefa Mianowskiego* (Engl. Aid Fund for People Working in the Scientific Field named after Dr. med. Józef Mianowski), or in short *Kasa (imienia) Mianowskiego* (Engl. Fund (named after) Mianowski).

[11] "Odezwa w sprawie zwołania I zjazdu, poświęconego sprawom organizacji i rozwoju nauki polskiej," *Nauka Polska*, vol. 3 (1920), 225–226: 225.

the forces of the most competent scholars of the country, but also help to formulate a sound programme for controlled development.[12]

The congress was one of many peaks in contemporary science organisation. In fact, the Mianowski Fund had already engaged in science promotion for forty years. Founded in 1881, it had funded several generations of scholars from Warsaw and other parts of the Russian partition with scholarships, printing subsidies, and institutional assistance. In November 1916, when Warsaw was under German control during the First World War, the Fund made a programmatic turn. Establishing the Academic Council with the Fund's secretary general Stanisław Michalski (1863–1935) at its centre, the Fund declared an end to the defensive agenda of safeguarding the small range of opportunities under Russian control, and instead devoted itself to a programme of active funding and promotion.[13] As a report noted in 1920, the foundation should become a "private ministry of science" and start big scale action to stimulate scientific development.[14] The Fund continued to subsidise individual scholars going abroad, accommodated others in two country houses for writing retreats, awarded prizes, helped equipping laboratories, libraries, or institutes, paid printing subsidies, and provided infrastructural assistance to other societies.[15]

The Academic Council appealed to Polish scholars of all kinds, asking them to write inventories of their respective disciplines. Over the course of two years, more than 44 reports arrived from all over the future state and beyond. A large portion of the collected reports was published in the first two volumes of a yearbook series that became known as the Fund's principal journal: *Nauka Polska. Jej potrzeby, organizacja i rozwój* (Engl. Polish Science: Its Needs, Organisation, and Progress[16]). From 1918 onwards, 24 volumes were published until the outbreak of the Second World War, followed by one final 25th volume in 1947. The 3rd volume contained the proceedings of the 1920 congress[17] and a report on the achievements of the Academic Council since its foundation. The report proudly stated that the Kasa had developed from a Varsovian initiative into an institution of national scope with Nauka Polska as its central organ.[18] The journal compiled original research work, reports on the national and international development of scientific institutions, science funding, and congresses, as well as

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[12] Ibid.

[13] "Sprawozdanie z działu naukowego biura Kasy Mianowskiego," *Nauka Polska*, vol. 3 (1920), 239–256: 240. For a detailed auto-history see "Wiadomość o działalności Kasy pomocy dla osób, pracujących na polu naukowym imienia doktora medycyny Józefa Mianowskiego (1881–1916)," *Nauka Polska*, vol. 1 (1918), 523–546.

[14] "Sprawozdanie z działu naukowego biura Kasy Mianowskiego," *Nauka Polska*, vol. 3 (1920), 239–256: 241.

[15] Cf. *Sprawozdanie 50 z Działalności Kasy im. Mianowskiego*, Warszawa 1931, 4–8.

[16] Vol. 24 (1939) translates the title as *Science and Letters in Poland. Their Needs, Organization and Progress*.

[17] See for information on delegates, programme etc.: "Sprawozdanie z działu naukowego biura Kasy Mianowskiego," *Nauka Polska*, vol. 3 (1920), 239–256: 245–246.

[18] "Sprawozdanie z działu naukowego biura Kasy Mianowskiego," *Nauka Polska*, vol. 3 (1920), 239–256: 241, 243.

book reviews and a growing bibliography of relevant international literature.[19] Nauka Polska usually sold out quickly. The first two volumes, with runs of 1.500 copies each, were unavailable shortly after hitting the bookstores.[20] The consecutive volumes were also used in exchange relations with national and foreign libraries, institutions, and societies.[21]

From 1936 onwards, the Kasa published a second journal, which contained English and French texts exclusively. Before, starting with vol. 5 in 1925, Nauka Polska had been equipped with French or English title pages, short translations of contents and sometimes résumés.[22] More than just supplementing its Polish sister journal, the Organon was meant to strengthen international outreach.[23] Initial plans can be traced to letters from late 1932, when first drafts for an "international journal dedicated to the science of science" – or *naukoznawstwo* in Polish – circulated. As the project had no name yet, the editors were looking for a universal title, preferably something "in Latin."[24] The final title, of course, evokes Aristotle's work on logics as a tool of science, but, more likely, it refers to Bacon's *Novum Organon Scientiarum* of 1620, the second book of his *Instauratio magna*. Though the editors did not, like Bacon, necessarily demand that "the entire work of the understanding be commenced

[19] The more than 30 pages of the complete bibliography of articles from the first twenty volumes gives an overview about the topics and areas covered. Cf. addendum to *Nauka Polska*, vol. 20 (1935).

[20] Vol. 1 was published in August 1919 (1500 copies) and sold out in April 1920, vol. 2 sold out in November 1920 after being published in April that year. Cf. "Sprawozdanie z działu naukowego biura Kasy Mianowskiego," *Nauka Polska*, vol. 3 (1920), 239–256: 242.

[21] For example in 1938, the Fund cooperated with 39 regional scientific journals from Poland, receiving 250 volumes. Polish institutions and libraries sent 29 publications and 8 bibliographical overviews in all together 116 volumes. Moreover, 33 international institutions funding or organizing science and 14 editorial offices of scientific journals cooperated, sending 344 publications from abroad. Cf. *Sprawozdanie 57 z Działalności Kasy im. Mianowskiego*, Warszawa 1938, 32–33. See also: *Sprawozdanie 55 z Działalności Kasy im. Mianowskiego*, Warszawa 1936, 37.

[22] Vol. 17 (1933) introduces the journal in English: "Science and Letters in Poland. Their Needs, Organization and Progress: This periodical publication is devoted to the studies on Science, Letters and Learning in Poland, especially on the social substratum and psychological conditions regulating the rise and development of Science, Letters and Learning (Sociology of Learning, Psychology of scientific creation). Besides there are included in 'Nauka Polska' articles, describing the present state of Learning (Science and Letters) in Poland and abroad, its Organization, Development and Needs; the Chronicle of Polish and foreign Scientific Life and notes on the history of the Organization of Learning are added in every volume. – Editor: S. MICHALSKI." Vol. 18 introduces *La Science Polonaise. Ses besoins, son organization et ses progress* in French: "'La Science Polonaise' est une publication consacrée à l'étude de la science dans ses rapports avec l'ensemble de la culture humaine, et notamment à l'étude des origines sociales de la science et de ses conditions psychologiques (psychologie de la création scientifique). En outre, la 'Science Polonaise' publie des articles traitant de l'état actuel de la science (corps et institutions scientifiques) en Pologne et à l'étranger, de son organisation, de son développement et de ses besoins, une chronique de la vie scientifique en Pologne et à l'étranger et l'histoire de son organisation en Pologne. – Rédacteur en chef: S. MICHALSKI."

[23] For an overview of the contents cf. "Tables des matières des numeros 1, 1936 – 3, 1939 & 1, 1964 –37(40), 2008," *Organon*, vol. 37 vel. 40, (2008), 269–294: 269–270.

[24] Bibliothèque Polonaise à Paris: Materials of Zygmunt Lubicz-Zaleski, akc. 3874, 7: letter from Nauka Polska Editorial Office (St. Michalski), 23. Nov. 1932, no pagination.

afresh […],"[25] they followed in his demand for a profound renewal of science, its tools, and its utilitarian objective. The programmatic idea of reflecting science and scholarship was paramount in Nauka Polska since 1918.[26] Other than the Polish journal, Organon had some starting problems. Though Zygmunt Lubicz-Zaleski (1882–1967), a literary scholar, translator, publicist, and de facto ambassador of the Mianowski Fund in Paris, reported on the great efforts he made at a Polish book shop and among French colleagues, only a handful copies were sold by early 1938, one of which to Moscow.[27]

As the unnamed authors of the introductions to the first volumes predicted, the shape and structure of Nauka Polska would change significantly over the years. Indeed, the editors refocused after the inventory of Polish scholarship in the first years. From the 4th volume onwards, a new approach whould foster the development of research and scholarly life. Science, as the introduction stated, should further be described and analysed as a *social* phenomenon, for a well-balanced science policy could only be developed upon precise knowledge of how institutions, schools, and (scientific) creativity (Pol. twórczość) interacted. A growing interest in the sociology of science since the 1920s included not only studying social interaction and dynamics of creativity, but also taking a broader look at the reputation of scholars and their disciplines within national society. As stated in one editorial, society's goodwill was indispensable for sound scientific development. Not only did society need high educational standards, but also understand science as a general value. The message was clear: neither should science funding be counted as luxury, nor should plain utilitarian approaches be favoured. Thus, the Mianowski Fund's responsibilities were further widened. It would have to promote science publicly, especially via Nauka Polska.[28]

Following the call for sociological studies of science, two eminent projects evolved within the Fund and its journals. The first was an archive. Already in 1918, geologist and pedagogue Antoni Bolesław Dobrowolski had insisted on "the urgent need of mental education."[29] In the first volume of Nauka Polska he developed a research

[25] See Francis Bacon: *The New Organon; or, True Directions for the Interpretation of Nature*, ed. by Lisa Jardine and Michael Silverthorne, Cambridge 2000, Author's Preface, 28: "… that the entire work of the mind be started over again; and from the very start the mind should not be left to itself, but be constantly controlled; and the business done […] by machines." For Bacon's scientific utilitarianism and expertocratic thought see Robert K. Faulkner: *Bacon and the Project of Progress*, Maryland/London 1993.

[26] Cf. ► "Preface" (1936), 105, i. e. "Preface," *Organon*, vol. 1 (1936), V–VI.

[27] Bibliothèque Polonaise à Paris: Materials of Zygmunt Lubicz-Zaleski, akc. 3863, II, 1: letter from Organon Editorial Office (St. Michalski), 25. March 1938, no pagination. See also akc. 3863, II, 2: letter to St. Michalski, 17. Nov. 1937, no pagination, and letter to St. Michalski, 31. March 1938, no pagination.

[28] ► "Editorial Introduction" (1923), 103–104, i. e. "Wstęp redakcyjny," *Nauka Polska*, vol. 4 (1923), VII–IX.

[29] ► Antoni B. Dobrowolski: "The Urgent Need for Mental Education in Poland" 1918, i. e. "O pilnej potrzebie wychowania umysłowego w Polsce: o konieczności zasadniczej reformy nauczania w szkołach średnich oraz stworzenia w związku z ową reformą nowych placówek pracy naukowej," *Nauka Polska*, vol. 1 (1918), 489–502.

programme to examine the smallest units of thought, which, eventually, should be at the core of a new pedagogical method of education. Instead of teaching just the bare facts, Dobrowolski aimed to teach proper ways to think as he phrased it with reference to John Dewey.[30] Dobrowolski, who was connected to Nauka Polska from the very start, heavily leaned on the journal to propagate his project. He envisioned it as a rich collection of source material. Works from experimental psychology, accounts of past intellectual achievements, research reports and law suits, but also observations of children in school should help studying "intellectual strategies in different circumstances".[31] The most important sources, however, were to be assembled in an archive of "biographies of ideas".[32] Dobrowolski dreamt of honest accounts of the evolution of creativity in the arts and sciences, including all the dead ends, mistakes and coincidences that might occur in the creative process. His 1918 call culminates in an appeal to all creative workers to make biographies of their ideas available in Nauka Polska. A large collection would serve large systematic studies, and individual students, too, who could learn from role models. While Dobrowolski's interest went far beyond the 'great man', is aspect mostly attracted the journal editors. The call was republished several times in Nauka Polska, and supplemented with guidelines[33], while the first volume of Organon contained an English version.[34] Invitations to contribute were sent out and correspondence spread all over Europe. By 1939, about ten responses were published in both journals. Several of them are included in this volume.[35]

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[30] Cf. John Dewey, *How We Think*, Boston 1910.

[31] ► Dobrowolski: "The Urgent Need for Mental Education in Poland" (footnote 30), 296.

[32] Ibid., 299.

[33] In November 1932, Stanisław Michalski, secretary general of the Fund and head of the Academic Council as well as of both journals, sent the following guidelines to a colleague in Paris: "The purpose of psychological autobiographies is to give material for the psychology of scientific creativity. Concerning the frame, there should be a psychological autobiography of scientific life against the background of personal life; in particular, it is about:

1/ to bring out the genesis of scientific creativity (origins of the first scientific ideas, the stimuli that triggered them), to illustrate its psychological course and to characterise the external (sociological) and internal (psychological) conditions of its development[.]

2/ [A]n important illustration of the psychology of creativity would be to give a biography of at least one thought or scientific idea which one considers to be the most original, presented in a manner reflecting strictly the actual state of affairs (facts, dates of origin, development and results achieved), refraining from drawing conclusions or giving interpretations." Bibliothèque Polonaise à Paris: Materials of Zygmunt Lubicz-Zaleski, akc. 3874, 7: letter from Nauka Polska Editorial Office (St. Michalski), 18. Nov. 1932, no pagination.

[34] Cf. ibid., editorial introduction.

[35] Cf. Stanisław Ossowski ["Student"]: "Kartka z życia studenta," *Nauka Polska*, vol. 4 (1923), 63–75, ► Czesław Białobrzeski ["C.B."]: "An autobiographical sketch and remarks on scientific creativity" (1927), i. e. "Szkic autobiograficzny i uwagi o twórczości naukowej," *Nauka Polska*, vol. 6 (1927), 49–76, Franciszek Bujak ["F.B."]: "Drogi mojego rozwoju umysłowego," *Nauka Polska*, vol. 6 (1927), 77–136, ► Antoni B. Dobrowolski: "My 'Scientific Biography'" 1928, i. e. "Mój 'życiorys naukowy,'" *Nauka Polska*, vol. 9 (1928), 68–216, anonymous ["X.Y."]: "Życiorys II-gi," *Nauka Polska*, vol. 9 (1928), 217–245, anonymous ["J.Z."]: "Wspomnienia o drogach do pracy naukowej," *Nauka*

By the end of the 1920s, the Academic Council initiated another central project. From June 1928 until 1939, the *Science Studies Circle* (Pol. *Koło Naukoznawcze*) would meet on a regular basis to discuss topics connected to the life of science: the psychology of scientific creativity, the sociology and organisation of science.[36] As the first report tells, the discussions should "[respond] to the perceived need for theoretical foundations for the activities undertaken by institutions that deal with the administration and management of research, in particular the Mianowski Fund."[37] All interested scholars and officials from private or governmental institutions connected to science organisation were invited. Meetings would start with a presentation followed by discussions. Protocols were regularly published in Nauka Polska, and most talks found their way into the journal. Though the topics were very heterogeneous, they did not lose attraction. The turnout was large, most sessions were attended by 20 people and more (cf. ► Sessions of the Science Studies Circle 1928–1938).[38]

Both the archive and the Science Studies Circle soon became central elements of the new research area *naukoznawstwo*. The name translates well as *science of science*, yet the compound noun is more complex. Its first part 'nauka' means science and scholarship, whereas the latter part '-znawstwo' alludes to the Polish equivalent of the English suffix '-logy' or the Greek 'logia', meaning the 'study of.' German equivalents would be the antique '-kunde' or the more contemporary '-forschung'. However, if referring to their project in English, interwar Warsaw scholars usually referred to a 'science of science'. The Polish adjective 'naukoznawcze' must have been self-explanatory by the late 1920s when the Circle was founded.[39]

Another project, which did not turn out successful, was the foundation of an institute dedicated to the science of science. Although not much material on these plans

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Polska, vol. 9 (1928), 246–259, anonymous: "Życiorys I," *Nauka Polska*, vol. 15 (1932), 241–259, anonymous: "Życiorys II," *Nauka Polska*, vol. 15 (1932), 260–272, anonymous ["J.O."]: "Szkic autobiograficzny," *Nauka Polska*, vol. 16 (1932), 39–58, ► Emile Borel: "Contribution" (1936), i. e. "Contribution (Documents sur la Psychologie de l'Invention Dans Le Domaine De La Science)," *Organon*, vol. 1 (1936), 33–42), ► August Krogh: "Visual Thinking" 1938, i. e. "Visual Thinking," *Organon*, vol. 2 (1938), 86–94). Krogh's text was translated into Polish and published as "Myślenie wzrokowe," *Nauka Polska* vol. 24 (1939), 35–42.

[36] *Sprawozdanie 47 z Działalności Kasy im. Mianowskiego*, Warszawa 1928, 17.

[37] ► "Report on the activities of the *Science Studies Circle*" (1929), 107, i. e. "Sprawozdanie z działalności Koła Naukoznawczego," *Nauka Polska*, vol. 11 (1929), 353–355.

[38] Some smaller sessions dedicated to ongoing tasks of the Academic Council were not officially counted (*Sprawozdanie 47 z Działalności Kasy im. Mianowskiego*, Warszawa 1928, 17). See, however, for the mentioning of Ossowski's presentation in late 1929: ► "Second Report on the activities of the Science Studies Circle" (1930), 111–112, i. e. "Sprawozdanie drugie z działalności Koła Naukoznawczego," *Nauka Polska*, vol. 13 (1930), 166–169.

[39] In a contemporary translation of a text by Stanisław Ossowski, the *Koło Naukoznawcze* is referred to as "Debating Circle for Studies in Science" ("The Humanities and Social Ideology," *Baltic and Scandinavian Countries*, vol. 4/1 (1938), 68–76: 68. For the original see id. "Nauki humanistyczne a ideologia społeczna," *Nauka Polska*, vol. 22 (1937), 1–24. In the full bibliography of the first twenty volumes of Nauka Polska, Koło Naukoznawcze is translated into French as "Cercle d'Études sur la Science". Cf. the addendum to *Nauka Polska*, vol. 20 (1935), 4.

has been preserved, the Fund's annual report for the year 1928 states that the Mianowski Fund had been in contact with several governmental institutions to work out plans for such an institution.[40] One idea that was waged was to set up an institute in the Swiss town of Rapperswil. Close to Zürich, a Polish Museum had existed since 1870, where many Polish scholars stopped by when travelling west. Plans for an institute were made for several years, yet finally had to be dismissed due to a lack of funding during the global economic crisis of the late 1920s.[41]

Nevertheless, the activities organised under the auspices of the Fund's Academic Council did grow significantly. In 1923, a library for science organisation was created, whose bibliographical index reached a number of 31.500 cards in 1938. In that year, the library and archive compiled 650 titles from Polish and selected international journals, as well as bibliographical reports for relevant works in order to have them reviewed in Nauka Polska and Organon.[42] The annual chronicles in Nauka Polska registered activities in science organisation (congresses, workshops, founding and reactivation of societies or institutions, legislation concerning science etc.) both in and beyond Poland. Many texts were translated from foreign languages and revised by professional linguists, and often women whose names were not disclosed.[43] Moreover, the Academic Council conducted several surveys on science related issues.[44] After its foundation in 1916, it supported the multi-volume book series *Handbook to Autodidacts* (Pol. Poradnik dla Samouków), whose tradition led back to the times of Tsarist control. Between 1898 and 1932 more than two dozen volumes were published in three series. While the first should introduce general education in two stages, the later, much expanded series were conceived to provide more specialised, 'scientific' knowledge.[45]

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[40] For a short note on the exchange with the Ministry of Religious Beliefs and Public Education and the Ministry for Foreign Affairs, as well as the Polish Commission of the International Committee on Intellectual Cooperation see *Sprawozdanie 49 z Działalności Kasy im. Mianowskiego*, Warszawa 1930, 17.

[41] Jan Piskurewicz: *W służbie nauki i oświaty. Stanisław Michalski (1865–1949)*, Warszawa 1993, 103. Piskurewicz extensively quotes Wanda Osińska's eulogy of Maria Ossowska ("Maria Ossowska (1896–1974)," *Kwartalnik Historii Nauki i Techniki*, vol. 20/2 (1975), 329–332: 332), who was supposedly chosen to organise the institute together with her husband. For their perspective see Maria's letter to Stanisław from 15 May 1928 in: *Intymny portret uczonych. Korespondencja Marii i Stanisława Ossowskich*, ed. by Elżbieta Neyman, Warszawa 2002, 271–272 and Stanisław Ossowski's diary entries from that time (*Dzienniki*, vol. 1: 1905–1939, ed. by Róża Sułek, Warszawa 2019, 174, 181, 183, 185).

[42] *Sprawozdanie 57 z Działalności Kasy im. Mianowskiego*, Warszawa 1938, 31–33.

[43] An office for French translations was mentioned in *Sprawozdanie 42 z Działalności Kasy im. Mianowskiego*, Warszawa 1923, 6–7. For a short mentioning of poet and graduate of English studies Felicja Kruszewska see *Sprawozdanie 58 z Działalności Kasy im. Mianowskiego*, Warszawa 1949, 30. A very central role had Janina Małkowska, who worked for the Academic Council from 1922 (Piskurewicz: *W służbie nauki i oświaty* (footnote 41), 80) and who preserved Stanisław Michalski's materials upon his death.

[44] For a survey on the organization of scientific congresses and 66 international responses cf. "Organisation des congrès scientifiques," *Organon*, vol. 2 (1938), 133–236, for an evaluation cf. Paweł Rybicki: "Ankieta Organonu," *Nauka Polska*, vol. 24, 397–410.

[45] Cf. Piskurewicz: *W służbie nauki i oświaty* (footnote 41), ch. 2.

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