

The Failed Fusion of Two Mathematical Reviewing Journals 1932–1934 – an Episode from the History of Dutch-German Mathematical Relations

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In December 1919, in the aftermath of war and revolution, the mathematicians in Berlin, particularly Erhard Schmidt (1876–1959), unsuccessfully tried to win the famous Amsterdam topologist, L.E.J. Brouwer (1881–1966), for the University of Berlin as a successor to Constantin Carathéodory

Brouwer may not have found the prospects of an appointment in crisis- and inflation-stricken Germany too attractive and turned the offer down in a letter to the Prussian ministry of education dated February 1920. He wrote that he had successfully negotiated better conditions for mathematics in Amsterdam, which from now on would be materially on equal terms with Berlin and Göttingen. Brouwer concluded his letter with the following words:

‘I will never forget how much I am indebted to Berlin for these improvements in the conditions of mathematics in my fatherland.’ (GSA, translated from German)

Indeed, Brouwer would maintain intimate relations with Berlin mathematicians in the years to come, especially with Ludwig Bieberbach (1886–1982), who finally filled the vacancy instead of Brouwer, and with Erhard Schmidt, who was among the first to spread the gospel of Brouwer’s topological work in Germany.

So, at first sight, Brouwer’s relations with Berlin were in the tradition of the Dutch-German scientific collaboration, symbolized by the names of H.A. Lorentz (1853–1928), Paul Ehrenfest (1880–1930), Peter Debye (1880–1933), and continued in the 1920s, for example, by mathematicians such as B.L. Van der Waerden, Hans Freudenthal, Roland Weitzenböck, and Gerrit Bol.

But there was, from the beginning, something peculiarly political to the relations between Brouwer and Berlin. For example, Brouwer corresponded with Karl Kerkhof¹, the head of the *Reichszentrale für naturwissenschaftliche*

¹ Not Dutch in spite of his name.

Berichterstattung ('National Office for Scientific Documentation') in Berlin, which had been founded in 1920. The *Reichszentrale* not only coordinated the publication of all German abstract journals, but also introduced an internationally unprecedented photocopy service that provided scientists with copies from journals that were inaccessible to them. The *Reichszentrale* also served as a clearing-house for information concerning the 'boycott of German science' and, especially after 1925, it promoted and perpetuated nationalism on the German side, e.g. by publishing pamphlets of political contents².

On October 10, 1922, for instance, Brouwer wrote a letter to Kerkhof, asking for a list of names of scientists from neutral countries who opposed the boycott policies of the *Conseil International de Recherches* which had been founded in the wake of the Versailles treaty. Brouwer wanted to 'found an international organization which dispels the scientific barbarism which rules today's international relations.' [4, p.39] Brouwer was not alone in his anti-French feelings after the war. His opinions, of course, were shared by many German mathematicians. Roland Weitzenböck, who went to the Netherlands after the war, wrote a preface to his 'Invariantentheorie' (Groningen 1923), in which the first letters of the first sentences result in the battle cry 'Nieder mit den Franzosen' ('Down with the French').

As to the general political climate in the Netherlands with respect to Germany and France in those days, Hans Freudenthal (1904–1990), who came to Amsterdam in 1930, wrote to me:

'There were many in the older generation of scientists in the Netherlands', who were more inclined towards France than Germany. The first foreign language at schools was French. However, many were in fear of the French militarism as well as of the German one. Moreover, after World War I, many Dutch citizens were more afraid of the French militarism, since France had – in vain – supported Belgian plans for the annexation of Dutch territory. So, by and large, the Dutch were more sympathetic towards the Germans than towards the French until the Nazi period'. [4, p.53]

As to the situation in Germany itself, there was a prevalent condemnation of the Versailles treaty among scientists as well as among other Germans, which was mixed, however, with efforts on the part of many scientists to restore the pre-war scientific communication, especially on the level of personal relations.

In this respect there was a marked difference between the attitudes of several physicists and mathematicians Göttingen on the one hand and scientists in some more conservative quarters, such as Berlin and Munich, on the other. Since Göttingen had held more extensive international relations (G.H. Hardy, N. and H. Bohr) than many other German centers before the war, it had to lose most from an interruption of international communication. Although Felix Klein from Göttingen had signed the infamous militaristic manifesto of 93 German intellectuals in 1914, it was Göttingen scientists and mathematicians, above all D. Hilbert, J. Franck, R. Courant, and M. Born, who tried to grad-

² See [2, p. 212], and [4, p. 39].

ually restore international relations after the war. When in 1926 the *Conseil International de Recherches* cancelled the paragraph which had excluded the Germans from official contacts, Göttingen mathematicians such as Hilbert saw no longer any problem to participate in international congresses such as the one in Bologna 1928. In striking contrast to this attitude, mathematicians at Berlin and Munich opposed a participation in Bologna. Bieberbach wrote an open letter to Hilbert, and Brouwer supported this letter³.

But there were institutional and cognitive conflicts between mathematicians at Göttingen and Berlin as well, which aggravated the situation. Following the rise of mathematics in Göttingen in the 1890s, Berlin mathematicians looked with growing jealousy towards Göttingen, which had, for example, four chairs in mathematics, compared to the three in Berlin.

Moreover, Brouwer's 'intuitionism' did have obvious potentials for criticizing, even restricting the dominating style of production in mathematics, with Hilbert's 'formalism' and 'axiomatic method' being the twin-paradigms of 'modern' mathematics [3]. So, internationalism in mathematics could appear to some conservative mathematicians as equally irresponsible to the 'dignity of the people' and to the 'meaningfulness of mathematics' [3]. Brouwer, who had once been immensely cherished by Hilbert and even got a call to a chair in Göttingen in 1919⁴, became increasingly estranged from the mathematicians at Göttingen. In 1928, in the context of the Bologna affair and Hilbert's serious disease, the latter managed to expel Brouwer from the editorial board of the leading *Mathematische Annalen*, published by the Springer Verlag.

Around 1929, another institutional conflict between Berlin and Göttingen arose, which is to be the topic of my remaining remarks⁵.

The traditional mathematical reviewing journal *Jahrbuch über die Fortschritte der Mathematik*, founded in 1869 and edited by the Berlin Academy of Sciences under strong influence of Bieberbach, became increasingly outdated, especially due to the slowness of its appearance. The main editorial principle is expressed by the very name *Jahrbuch* (Yearbook). Since the mathematical literature of a calendar year was to be reviewed with utmost completeness and systematicity, the publication of the first abstracts could not begin before the following year. Personal and financial problems and – last but not least – wars added to these problems, and there was sometimes a delay of up to seven years in the publication of abstracts.

In view of this situation some mathematicians at Göttingen, among them Richard Courant and Otto Neugebauer, considered the possibility of founding a new reviewing journal with the Springer Verlag, which would abandon those long-esteemed, but outdated editorial principles and publish reviews immediately upon reaching the editor. Also, this new journal was to be much more international, publishing in foreign languages as well, while in the *Jahrbuch* all reviews appeared in German. The Göttingen mathematicians pursued their

³ With respect to the Bologna and Annalen affairs, see [1].

⁴ which he declined as he did with the offer from Berlin, mentioned above.

⁵ See [4], esp. chapter 3.

plans clandestinely, partly in order to ponder the chances of winning over former collaborators of the *Jahrbuch*.

And this is the point where Dutch-German relations came in again: There was another mathematical reviewing journal in those days, founded in 1893 and published by the *Wiskundig Genootschap* (W.G.) in Amsterdam. The *Revue semestrielle des publications mathématiques*, as it was called, was quicker than the *Jahrbuch*, but less systematic. It had almost exclusively Dutch collaborators and was financially in an equally deplorable state as the *Jahrbuch*. The acting president of the *Wiskundig Genootschap*, the differential geometer J.A. Schouten (1883–1971), had contacts with Springer in 1929 and discussed the possibility of a fusion between the Dutch *Revue* and the new *Zentralblatt*. But it is clear from Schouten's letter to Springer, that Schouten did not realize at that time the competition between the old German *Jahrbuch* and the *Zentralblatt* under foundation. So, when Springer made an official offer to the Wiskundig Genootschap in November 1930, it came as a shock to several members, when Brouwer informed them about that competition⁶. That there was competition in reviewing within one country, Germany, seemed to be sufficient proof of a 'pure commercial character' of Springer's project. Members such as G. Mannoury articulated fears with respect to wrecking the 'idealistic foundation' of reviewing and a possible 'monopoly on reviewing' on the part of the Springer publishing house. In vain B.L. Van der Waerden asserted – somewhat exaggeratively – the 'unselfishness' of the new *Zentralblatt*.

Meanwhile the young Berlin topologist Hans Freudenthal (1904–1990), who happened to be a collaborator with the *Jahrbuch*, had learned – probably from Brouwer – about the contacts between the *Revue* and Springer. So, the managing editor of the *Jahrbuch*, the topologist Georg Feigl, made an offer to Brouwer for a close collaboration with the *Revue*. That Brouwer would strongly support this offer in the W.G. does not come as a surprise in view of his conflicts with Göttingen and Springer.⁷ In addition, there were deeper connections between Bieberbach's and Brouwer's sticking to conservative modes of mathematical reviewing and their cognitive convictions, as I have argued at some length in [4]. Bieberbach, for one, suggested a subliminal connection between the systematic, collecting function of the *Jahrbuch* and the foundational, rigor-providing function of mathematical axiomatics. Bieberbach approved of the latter function of axiomatics. But he was suspicious of the creative, expansive functions of axiomatics as well as of an uncontrolled and unsystematic mathematical reviewing.

Finally, in April 1932, a contract was signed between the *Revue* and the *Jahrbuch*. The contract did not result in an actual fusion between the two journals but merely to a restriction of the *Revue* to the publication of titles and to financial support for the publication of the *Jahrbuch*, which continued to appear in its outdated style and with considerable delay. From the outset,

⁶ See excerpts of the notes of the meetings of the executive committee of the W.G., translated by Hans Freudenthal and published in [4, pp. 208–211].

⁷ In 1930 Brouwer founded the new journal *Compositio Mathematica*. See [2, p. 234].

however, it was that financial support which caused fears among some members of the W.G., who, in addition, were a little bit jealous about the new title page of the *Jahrbuch*, which suggested the dominance of the Berlin editors.

Meanwhile, the *Zentralblatt für Mathematik und ihre Grenzgebiete* had successfully started in 1931, making the *Jahrbuch* more and more superfluous in the years to come. When, eventually, the Nazis took over in Germany in 1933, the atrocities and expulsions of Jews which became known in the Netherlands, shocked the *Wiskundig Genootschap* out of its state of conservative splendid isolation and led to a cancellation, arbeit in conciliatory form, of the contract with the *Jahrbuch*.

While the German *Jahrbuch* continued to exist until the war years, thereby under Nazi conditions even surviving the more modern *Zentralblatt* (which was to be revived only after the war), the Dutch *Revue* ceased to publish altogether in 1934. Thus the seizure of power by the German Nazis in 1933 became a turning point for international relations in the field of mathematical reviewing as well.

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