

[5] H. Hasse, F.K. Schmidt, *Correspondence exchange*, Göttingen.

[6] A. Scholz, O. Taussky, *Correspondence exchange*, Pasadena.

Felix Bernstein: a failure in emigration because he was old and difficult?

NORBERT SCHAPPACHER

The title of this talk reflects the bottom line of Reinhard Siegmund-Schultze's treatment of Felix Bernstein's [1878–1956; we will refer to him as 'F.B.'] case in [1, pp.262–266]. My aim is to explore complementary lines of explanation. They cannot, however—nor are they meant to—replace Reinhard's wise way of dealing succinctly with a complicated case. My suggestions are mindful of the delicate position, between various disciplines and professional organizations, in which F.B. found himself as a result of his increasing interest in medical and anthropological applications of mathematical statistics. His hybrid domain of research could render professional integration all the more difficult as he, who had never passed a medical degree, could not simply claim to be part of the medical profession.

Yet how could it happen that F.B. was regarded in May 1934 at the Rockefeller Foundation as “the one definite misfit among the displaced scholars” [1, p.262]—even though he had been until 1932 the well-known director of the Göttingen *Institut für Mathematische Statistik*; had successfully deduced from statistical data the inheritance of the human A / B / AB / O blood groups in 1924; had already left Germany on 1 December 1932, for his third invited lecture trip to the USA; and even though he had excellent connections there? F.B. was, for example, in touch with Albert Einstein about an immediate boycott of Germany in reaction to the antisemitic actions.¹ And he participated for a while in discussions about plans for a Jewish University in the UK to absorb Jewish academics who had recently lost their jobs in Germany. This idea interacted with other more or less analogous initiatives, e.g. by Alvin Johnson, director of the New School for Social Research, with whom Bernstein corresponded. Albert Einstein wrote a letter of recommendation for F.B., dated 24 February 1933, to Nicholas Murray Butler, then President of Columbia University, New York. This letter was undoubtedly drafted by Bernstein himself; it briefly reviews F.B.'s scientific career up to 1933.

As a matter of fact, F.B. did obtain in 1933 an initial job as guest professor at Columbia University with aid from the Emergency Committee of the Rockefeller Foundation (RF); but the contract ended in 1935 in accordance with the Emergency Committee's rules. From 1936 to 1937 F.B. was Professor of Biostatistics at the Dental Medicine Faculty of NYU. Finally, from 1937 through 1950, all he could find was a miserable position as lecturer at Triple Cities College of Syracuse University at Endicott, NY. Attempts to get to Yale or Harvard came to nothing,

¹He had expressed his political mind before—for instance in 1918, when he had been a co-founder of the left liberal *Deutsche Demokratische Partei* alongside with men like Hjalmar Schacht, Walter Rathenau, Theodor Heuss. F.B. was one of the few truly republican university professors in Weimar Germany.

despite the interest of colleagues like E.B. Wilson (Harvard) for just the kind of interdisciplinarity that Bernstein could offer.

The more immediate professional contacts that F.B. could try to exploit in the US naturally derived from his research since the 1920s. A central theme in this work was the search for racial markers. In 1924 for instance, with the backing of Albert Einstein, F.B. had asked the RF to sponsor a survey of the natural singing pitch of European children, which he believed to be a genetic racial marker. The request was turned down as being incompatible with the RF funding priorities at the time. In 1929, F.B. pursued a similar project, including what he labeled “West Indian” and “Negro” voices, in a field study at the James Russell Lowell School, Harlem, with the Long Island Biological Association. As of October 1928, he aroused Max Mason’s (RF) personal interest in such projects. Although the RF could not offer direct funding to F.B. for field work in the US, their discussion (March 1929) apparently encouraged F.B. to approach Friedrich Glum, the director of *Kaiser-Wilhelm-Gesellschaft* (KWG) directly asking, if not for an institute created for him, at least for an official position in one of the existing structures of the KWG. Such a self-invitation strikes us as almost suicidal because an earlier research proposal drafted by F.B. in November 1927, for an extensive survey of the distribution of blood-groups in Germany² had been fatally rejected on 17 December 1927 at a crucial high-level meeting in Berlin about financing options for anthropological research projects. In this meeting, Eugen Fischer, the director of the new *Kaiser-Wilhelm-Institut für Anthropologie, menschliche Erblehre und Eugenik* in Berlin, had dismissed Bernstein’s focus on a few discrete, clearly measurable hereditary traits like blood groups with the (antisemitic?) remark: “. . . da könne man ebensogut eine ‘Nasenforschung’ fordern” [2, p.115–116]. One may interpret this event as the beginning of Bernstein’s increasing preclusion from the anthropological mainstream.³

In the US, at least the cultural anthropologist Franz Boas [1858–1942] was on F.B.’s side, and was quite skeptical with respect to Eugen Fischer’s take on racial research and his institute; this is clearly brought out by a letter of May 1928 from Boas to the New York banker and patron Felix M. Warburg, to whom Boas recommended F.B. warmly. After 1933, F.B. seconded the 77 year old Boas in a project which involved anthropometric surveys of children from different races, in particular Jewish children in orphanages, schools, etc. This work was placed in a context of refuting simple anthropometric racist theories. When F.B.’s position at Columbia University was discontinued in 1935, Boas wrote to him: “I regret more than I can say that there seemed to be no way of establishing you as the center of scientific statistical work which is so badly needed.”

²At least since Ludwik & Hanna Hirsfeld had surveyed the blood groups of soldiers from 16 nations at the end of World War I, blood groups were seen as discrete genetic properties whose distribution mirrored racial intermixtures brought about by historic migrations.

³Only in the UK, F.B.’s approach seems to have been taken up with more sympathy. Since F.B.’s emigration never led him to the UK, we leave this aspect aside for the present talk.

Through his research on blood groups, F.B. was in contact with Karl Landsteiner's [1868–1943; discoverer in Vienna in 1900 of what was later called the A / B / O blood groups] laboratory in New York and knew in particular Landsteiner's young and active collaborator Alexander S. Wiener. In 1931, F.B. had succeeded in obtaining a Rockefeller grant for his student Siegfried Koller to work there for a term.

F.B. also knew very well the eugenicist Charles B. Davenport [1866–1944] at Cold Spring Harbour, Long Island, who was less critical of Eugen Fischer, Otto Reche (for whom blood research in Germany was more of a *völkisch* cause) and others, than Franz Boas. At the same time, in a letter of 27 February 1936 to the anatomist G.J. Noback at NYU, Davenport wrote: "I have known Dr. Bernstein since before he came to this country, through his publications; and have been thrown rather intimately with him since. . . He is, as you know, the discoverer of the true genetical basis of the blood groups, and has made contributions . . . to the difficult genetical analysis of the human pedigrees. He is an outstanding statistician and that and his great interest in human heredity make a very unique combination. . . . Bernstein has been with us at Cold Spring Harbour for two or three summers and has always proven himself agreeable and cooperative. . . . The only 'out' that I know of him is that he is of a somewhat nervous temperament, but that has not interfered with our contacts. . . ."

It was not impossible to initiate a new centre for applied mathematical statistics in the US in the 1930s, as the example of Jerzy Neyman's [1894–1981] coming to UC Berkeley in 1938 shows. One may speculate that, apart from his younger age, Neyman's British experience helped him to get this opportunity. But in order to highlight the peculiar difficulties of the sort of applications of mathematical statistics that were F.B.'s specialty, I chose for the last part of my talk the example of the non-paternity tests based on the heredity patterns of blood groups. For them to become applied before court, the rules of heredity have to be accepted not only by the medical profession, but also by the law scholars and the judges as scientific proof. In Germany and most European countries, F.B.'s heredity rule for the A / B / AB / O blood groups made their way into courtrooms within about 4 years of their discovery—not the least because of the very active and persuasive work by the medical researcher Fritz Schiff in Berlin.

In the US however, Landsteiner's lab in New York, esp. the publications of Alexander S. Wiener, in spite of their quality and relevance, did not have the same impact; the admissibility of blood group based non-paternity test before American courts with a jury would continue to lag behind European standards by more than a decade. Searching through US law journals from the 1930s not only shows a few spectacular cases—like *State v. Damm* in South Dakota, or *Berry v. Chaplin*, 74 Cal.App. 2d 652—but one also discovers articles by American law scholars on what they call the American 'Culture lag', i.e., the unduly long way from a scientifically established method to its application in the courtroom. The traditional emphasis on the jury in American legal practice is certainly one of the reasons for this phenomenon. Still, it seems worthwhile to try to investigate more

precisely the significant differences between the inertias of the medical and the legal profession on both sides of the Atlantic.

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Migrations of Hungarian mathematicians in the 20th century: some general trends and examples

PÉTER GÁBOR SZABÓ

“The two best Hungarian export goods are salami and mathematicians.” The historian of mathematics László Filep (1941–2004) began with this funny remark in his article [2] on the emigration of Hungarian mathematicians in the 20th century. It is a fact that there are lots of excellent Hungarian mathematicians, and in the turbulent history of the 20th century Hungary gave many mathematicians to the world [3]. The “Hungarian secret” arose from the mathematical tradition in Hungary which dates back to the two Bolyai mathematicians [8]. Farkas Bolyai and his son, János Bolyai, were the first Hungarian mathematicians to achieve world fame. János Bolyai is a cultural hero in Hungary.

There were internal and external social and cultural reasons why several remarkable Hungarian mathematicians appeared at the beginning of the 20th century. One of them was a mathematical tradition in Hungary with excellent teachers, teaching institutes, journals and mathematical competitions. The *Középiskolai Matematikai Lapok* (*KöMaL*, Mathematical Journal for Secondary Schools) [1] was founded by Dániel Arany in 1894. This journal played a very important role in the selection of the most talented mathematics students. In 1894 a mathematics competition of the Hungarian Mathematical and Physical Society was introduced for students just finishing high school. With the exception of a few small gaps during the world wars, this competition has been held every year. Thirty-five years later John von Neumann wrote to Lipót Fejér in a letter, saying “I have had several conversations with Leo Szilárd about the schoolchildren competitions organized by the math. phys. society, and about the fact that the first-ranking placeholders in these competitions virtually coincide with the set of those mathematicians and physicists that proved able afterwards.” Indeed, we can read the names of many excellent scientists among the winners of the Eötvös Competitions (e.g. Lipót Fejér, Theodore von Kármán, Dénes König, Alfréd Haar, Marcel Riesz, Gábor Szegő, Tibor Radó, László Rédei, László Kalmár, Edward Teller).

We can discern three emigration waves of Hungarian mathematicians in the 20th century. The main reasons for the emigrations were social and political. Some people voted with their feet. Many received academic invitations, got better positions and grants. Unemployment was also a reason for emigration, and usually