

Learning soft skills the hard way: Historiographical considerations on the cultural adjustment process of German-speaking émigré neuroscientists in Canada, 1933 to 1963

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ABSTRACT

This article is a historiographical exploration of the special forms of knowledge generation and knowledge transmission that occur along local cultural boundaries in the modern neurosciences. Following the inauguration of the so-called “Law on the Re-Establishment of a Professional Civil Service” in Nazi Germany on April 7, 1933, hundreds of Jewish and oppositional neurologists, neuropathologists, and psychiatrists were forced out of their academic positions, having to leave their home countries and local knowledge economies and traditions for Canada and the United States. A closer analysis of their living and working conditions will create an understanding of some of the elements and factors that determined the international forced migration waves of physicians and clinical neuroscientists in the twentieth century from a historiographical perspective. While I am particularly looking here at new case examples regarding the forced migration during the National Socialist period in Germany, the analysis follows German-speaking émigré neurologists and psychiatrists who found refuge and settled in Canada. These individuals form an understudied group of refugee medical professionals, despite the fact that the subsegments of refugee neurologists and clinical psychoanalysts in the United States, for example, have been a fairly well-investigated population, as the works of Grob (1983), Lunbeck (1995), or Ash and Soellner (1996) have shown. This article is primarily an exploration of the adjustment and acculturation processes of several highly versatile and well-rounded German-speaking physicians, who had received their prior education in neurology, psychiatry, and basic brain research. They were forced out of their academic home institutions and had to leave their clinical research fields as well as their disciplinary self-understanding behind on the other side of the Atlantic.

KEYWORDS

Canada; cultural adaptation; émigré neuroscientists; Europe; forced migration; Heinz Lehmann (1911–1999); social contexts; Karl Stern (1906–1975); transatlantic transfers; twentieth-century neuroscience; Robert Weil (1909–2002)

Introduction

In the recent past, even many historians of medicine and science have endorsed the widespread belief that the exodus of Central European scientists and physicians during the Nazi Period could readily be described in terms of a linear equation of the subtractions

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and additions of intellect. This common interpretation has simplistically viewed the massive exodus of academics, intellectuals, and scientists after 1933 as an “enrichment” primarily of the North American and British medical and academic communities (see Medawar & Pyke, 2001 or Cornwell, 2003, for example). Although such a perspective is not entirely wrong when a rather quantitative “meta-perspective” is taken, it becomes less compelling when the individual biographies of the respective physicians and scientists themselves are taken into account and are placed in their contingent work environments. This includes their work situations, skill sets, along with the personal and psychological resources of each émigré neuroscientist (cf. Stahnisch, 2010).

This contribution introduces some of those local and cultural factors which implicated the arrival, acceptance, and integration of many German-speaking émigrés doctors and brain researchers into Canada, following their exile between 1933 and 1945, which have largely gone unnoticed by the relevant scholarship on twentieth-century history of neuroscience. When tracing their career paths into the 1960s, during which the scientific research landscapes in Canadian biomedicine gradually came to change with the creation of the Medical Research Council (MRC), the complex cultural modes and scientific interchanges associated with the forced migration process become fairly obvious (MRC, 2000). As the main title (“Learning Soft Skills the Hard Way”) of this article implies, the integration of German-speaking émigrés neuroscientists cannot simply be perceived in terms of a supplementation of longstanding North American scientific traditions but needs to be viewed as a very complex process of acculturation on multiple levels of the social and cultural organization of contemporary Canadian and American research landscapes. It is further more of a seemingly modern interest in the cultural makeup of science to analyze and understand the process of forced migration in the neuroscientific field while mapping the often drastic changes that took place to the career patterns of this particular group of medical professionals (Zeidman, 2014). Based on the existing historical evidence, the traditional views on the forced migration process in the neurosciences and psychiatry need to be significantly readjusted and refined.

Situating a cultural view in the historiography of forced migration in the neurosciences

Although most core facts about the exodus of medical researchers during the period of Nazism in Germany are already known (cf. Seidelman, 2000, pp. 325–334, or Israel, 2004, pp. 191–261), a major incentive to revise some of the standard approaches stems from the historiographical problem of emigration-induced change, which has been researched from multiple perspectives in the humanities and social sciences. Not only did scholars draw on individual and collective biographies but they also measured “substantial impact parameters,” using bibliometric methods, membership issues in academic associations, and statistics regarding the leading positions in scholarly societies, which were particularly applied to the “hard sciences,” such as physics and chemistry, as well as sociology and political science in the “soft sciences” (Juette, 1990; Soellner, 1996).

The impulses for such a revised research strategy came from relatively new approaches to the historiography of the cultural context of science (Galison, Graubard, & Mendelsohn, 2001; Schmidgen, Geimer, & Dierig, 2004; Erikson, 2005) and problems of the transfer of knowledge (Argote, 1999; Jankrift & Steger, 2004; Ash & Soellner, 2006). In applying those new perspectives to the research networks and the communication structures of émigré neuroscientists,

this article aims to provide additional perspectives towards the social background and cultural implications of the case of forced migration in the neuroscience field (cf. Peiffer, 1998a, 1998b, 1998c). An earlier process-oriented perspective developed in the 1990s by a group of scholars at the *Berliner Wissenschaftskolleg* has opened promising paths for the study “of [the] intellectual and cultural change” occurring through the forced migration of European scientific émigrés (Ash & Soellner, 1996, pp. 1–19). A number of American and German historians and philosophers of science (Fischer, 1996) have provided useful models through their scholarship on emigration-induced scientific change. These included the relevant social accounts of the historical developments, social reception, and reintegration of German-speaking émigré scientists. As such, refugee-neuroscientists, like all their compatriots in exile, found themselves in the foreign environment of North America, where they had to continue their daily life, support their partners and families, become relicensed and obtain professional acceptance. They had to learn the social and cultural codes, psychological mentality, and likewise “soft working skills” often the “hard way” (Rheinberger, 2005, pp. 187–197) when being barred from clinical work, having to close labs in order to pursue better paid jobs for their subsistence, or changing their personal research interests so as to “fit” more closely with the acceptable clinical and scientific paradigms of the often hands-on, capitalist, and technophile North American society.

From neuropathology to psychoanalytic psychiatry and medical education: The case example of Karl Stern

Many of the émigré neuroscientists, just to name the neuropathologist Karl Stern (1906–1975), and his colleagues from the former group of Kurt Goldstein (1878–1965), Adhémar Gelb (1887–1936), Victor Franz (1883–1950), and Walther Riese (1890–1976) in Frankfurt am Main, were influenced by interpretations of holistic neurology and the experimental culture of the Weimar Period, which they at first sought to continue in their American exile (Stahnisch & Pow, 2015). What emanates as the central problem for émigré neuroscientists such as Stern and Goldstein, was not only personal acculturation but also the readjustment of their research and clinical activities. They had to search for new work places and integration into the preexisting Canadian and US working groups, research programs, and academic milieus, which they often literally encountered as a “New World.” Continuous comparisons of the similarities and differences with their former European experiences were permanently present (Sachs, 1998), a process through which they noticeably stood out due to their critique and reproaches of the differences, shortfalls, and exaggerations of life in their new host countries. For example, the Goldstein collaborator from Berlin Max Bielschowsky (1869–1940) wrote back from his own exile abroad:

I am as well as a man with my past could be in a very strange country [*auf fremdem Boden*]. You know how much I love my home country [*meine Heimat*]. All the friendliness and kind offers of support by my [new] colleagues, however, will never really substitute for what I had to leave behind [in Germany].¹

The members of the Goldstein Group certainly proved to be no exception to that rule, no matter what their influential contributions to neurology, psychiatry, experimental psychology, or matters of the philosophy of science and medicine had been. This loose network of people included the earlier collaborators from Frankfurt am Main and

¹Émigré neurohistologist Max Bielschowsky, *Letter*, qtd. after Peiffer (2004), p. 496.

Berlin, Karl Stern who had joined the Allan Memorial Institute of psychiatric research at McGill University in Montreal, Canada), Walther Riese who immigrated to Richmond, Virginia, in the United States, Frieda Fromm-Reichmann (1889–1957) who received a position as a psychiatrist at the Chestnut Lodge mental asylum in Maryland in the United States and who independently immigrated to other destinations in North America. Goldstein's nearest friend and colleague Adhémar Gelb (1887–1936) had lost his chair at the University of Halle and was just about to leave Germany in 1936 for a position at Kansas State University in Manhattan, Kansas, when he succumbed, at the age of 49, to a tuberculosis infection, which he had contracted in his continuous work with severe clinical patients (Danzer, 2006, p. 23f).

The case of Goldstein's collaborator Stern in Montreal, a former pupil of brain oncologist Walther Spielmeyer (1879–1935) in Munich, can be presented here as an important change from an accomplished neuropathologist back in Germany, who later became a well-accepted clinical psychiatrist and fervent academic teacher later in Canada. At first glance, the conditions for a transfer of concepts and methods were ideal in Stern's case (Goldblatt, 1992, pp. 279–282), who was born in a small town in Bavaria near the Czech border (Bullemer, 2003).² After he had passed most of his medical education at the Charité Hospital and Medical School in Berlin, Stern graduated with an MD in 1930 from the University of Frankfurt/M. Between 1930 and 1931, he worked together with Goldstein as a resident physician in psychiatry at the Frankfurt Neurological Institute (Stahnisch, 2008).

Between 1932 and 1933, he had a Rockefeller fellowship in the Department of Neuropathology at the German Research Institute for Psychiatry (Deutsche Forschungsanstalt fuer Psychiatrie: DFA) in Munich to collaborate with the neurohistologist Spielmeyer, one of the world-leading specialists at the time for brain-tumor diagnoses which provided the basis for fruitful scientific publications (Stern, 1939). Here, he had procured a position, in which, apart from the pathological analysis of the brains in “idiocy” and “circulatory disturbances,” he mainly acted as Spielmeyer's teaching assistant. Yet, this implied an enormous effort to live up to the high standards of Spielmeyer's expertise in this area. (This is all the more crucial, as one of the members of the leading Spanish school — Rafael Lorente de No [1902–1990] and Pío del Rio Hortega [1882–1945] and Oskar [1870–1959] and Cécile Vogt [1875–1962] in Berlin—worked on the same scientific level worldwide.) He was also expected to introduce graduate students and visiting researchers into the various histological methods and the vast array of laboratory applications in use by Spielmeyer so that for a large part of the day, Stern had “to wander from microscope to microscope in order to instruct the guests” (Stern, 1951, p. 16). In Munich, Stern clearly worked at the cutting-edge of neuroscience research and medical education at large.

When Goldstein decided to leave Frankfurt am Main in 1930 for Berlin (Kreft, 1997, pp. 131–144), he asked Stern to join him again as a consultant in one of his psychiatry wards. Since Stern had by that time received a great reputation for being a proficient neurohistologist himself, he was also expected to do the brain autopsies in the Moabit *Prosectur*. It seems that Stern, with his broad interests and knowledge basis, squared very well with Goldstein's holistic neurological assumptions which integrated philosophy, social psychiatry, and neuroscientific innovations alike. Concerned with medical processes

²The village of Cham has now named a “Dr.-Karl-Stern-Straße” in his honor and has commemorated his expulsion from Germany.

of adaptation and healing, rather than with aggressive “extinction,” holist neurology sat at the center of what Nazi ideology later rejected as “weak” Jewish medicine, while Stern himself did not hesitate at all to follow his mentor to the German Capital:

The hours were from six to eight but frequently we worked until well after midnight. There I found myself in a strange and extraordinary world, entirely different from anything I have ever seen before. We saw a continuous stream of clients. There were mothers with children who had just left a home destroyed by an alcoholic. These were drunkards, morphine and cocaine addicts, the hopeless, the destitute, those who had cynically and rebelliously isolated themselves, bound to a life of increasing solitude and destruction, and those who had succumbed to the deficiency of a loveless world. This was a cross-section through the darkest layer of the city. It was that fringe of life where human existence is ultimately atomized and surrounds itself with a void, a space of negation. It would take a whole book to describe all this so that the reader would be able to re-experience it. [...] I never recovered from these experiences. That means that I never recovered the undergraduate’s boundless admiration for science and for the absolute sacredness of research. [...] Although I had more scientific training later, I never forget those experiences in Moabit. They seemed to have put the abstract scientific aspect of Medicine into its proper place. It is just one side of a profound and complex development that with many of us science and art in medicine are no longer integrated. As science in general, medical science has gained in extensiveness what it has lost in intensity. (Stern, 1951, p. 85f)

Moabit was then one of the few academic hospitals with different services in neurology, psychiatry, and pathology that similarly related to each other as in the huge Neurological Institute, which Goldstein directed in Frankfurt before. However, just as everything was set for Goldstein’s clinic to develop into one of the major centers of German neurology, the catastrophe began. As soon as the Nazis had seized power, Goldstein was incarcerated and only released after agreeing to leave Germany forever. Through Switzerland, where he cofounded the “Emergency Society for German Scholars in Exile” (*Notgemeinschaft Deutscher Wissenschaftler im Ausland*) together with the Budapest pathologist Philip Schwarz (1894–1962) and the Mainz novelist Carl Zuckmayer (1896–1977), he sought refuge in Amsterdam, finishing his seminal publication *Der Aufbau des Organismus* [The Architecture of the Organism] (Harrington, 1991, pp. 299–304).

Stern stayed in Germany until 1935, before he left for London and eventually reached New York. Here a tight networking between contemporary international scientists comes into play, as his mentor from Munich days, Walther Spielmeyer, had met the Montreal neurosurgeon Wilder Penfield (1891–1976), previously familiar with Stern’s work, on Penfield’s lecture tour to North and South America in 1931 (Weber, 2000, p. 240f). Also, Stern’s new acquaintance with “a Canadian neurophysiologist” at Queen Square — who had supposedly been Herbert H. Hyland (1900–1977) from Toronto and who was in London exactly during this time — helped likewise so that Stern could leave for Montreal, where he immediately began to work in a mental hospital then on the outskirts of the city (*Hôpital de Notre Dame*).³ As Penfield was to inaugurate a psychiatric department to complete his Neurological Institute, he recommended Stern

³Spielmeyer had already gotten in contact with Penfield through letter communication by Otfried Foerster (1873–1941). He was later invited by the Montreal neurosurgeon to visit the Neurological Institute of McGill University on his lecture tour to North America. Also a transatlantic contact endured between Goldstein and Franz Alexander (1891–1964), since both had frequently been encountered at the joint seminars of the Neurological Institute with the Psychoanalytical Institute in Frankfurt am Main (see Laier, 1994, pp. 176–186).

to the biological psychiatrist D. Ewen Cameron (1901–1967) as the designated director. Shortly after the Allan Memorial Institute (AMI) had opened, in 1943, Stern was explicitly working for the latter’s Geriatric Unit together with the Czech-born and German-trained physician Vojtech Albert Kral (1903–1988) (see Fig. 1). He further taught the students’ courses as a research assistant, and later as an assistant professor for psychiatry (Hogan, 2007, pp. 131–150). However, as Stern admits in his autobiography *The Pillar of Fire*, his interests in neuro-oncology and the cognitive defects in clinical psychiatry went further than the narrow program, as well as the the routine culture at the Montreal Neurological Institute (MNI) and the Royal Victoria Hospital. In fact, Stern came into a preexisting interdisciplinary hospital setting, which was soon conceptually and also locally separated between its main players, the MNI and AMI. The MNI mainly fulfilled Penfield’s specific needs, that is, the different departments of epileptology, neurosurgery, neurology, and neuropathology were service institutions for an extended research program for the mapping of the human cortex. Not regarding the personally problematic relationship between renowned Professor Cameron, and the émigré psychiatrist Stern on his staff, Stern also left Montreal at the end of the 1950s to assume a leading role in clinical psychiatry in Ottawa. Between 1951 and 1975, he continued to work as a clinical psychiatrist at the University of Ottawa, yet no longer being a laboratory brain researcher. For more than a decade, he also served as the head



Figure 1. Karl Stern (first person right of D. Ewan Cameron in the center) at the Allan Memorial Institute (AMI), circa 1946. © Dr. Theodore I. Sourkes, McGill University, Montreal, Canada. Reproduced by permission of Dr. Theodore I. Sourkes, McGill University, Montreal, Canada. Permission to reuse must be obtained from the rightholder.

of the psychiatry department and promoted an integrative clinical approach that also encompassed psychoanalytical therapy options (Stahnisch & Pow, 2015, p. 246).

At first glance, conditions for the transfer of ideas and methods were ideal in the case of Karl Stern, although his biography cannot really be regarded as a success story in terms of theory change in the neurosciences. On the one hand, Goldstein's group, to which he belonged in the early 1930s, was about to transfer Moabit Hospital into one of the country's major centers for neuroscientific research, but the *Machtergreifung* of the Nazis diminished all their plans. It represents in a nutshell many other areas of medical science that stood in opposition to the ideals of Nazism and could not continue as traditions in Germany. With a view to the cultural picture of science, holist neurology ceased to exist, when the Goldstein group continued its work in spheres of clinical and experimental psychology. On the other hand, Stern himself came into a preexisting interdisciplinary hospital setting at the MNI, which was highly organized, although not in a broad and holistic fashion as many German centers. It rather fulfilled Penfield's and later Cameron's specific research needs (Feindel, 1991, p. 821f).

This story is far from complete, however, if it is not considered in terms of personal success and institutional change. Numerous oral history accounts underline Stern's noteworthy talent as an academic teacher, who seemed to have interested a whole new generation of Montreal medical students in the histological study of the brain (Feindel, 1984, pp. 347–358). It also informs us about the necessity of broad education and training, often forgotten by a disciplinary tunnel vision on scientific excellence disrespecting a solid training base as the source for future innovations. The view on the cultural picture of science thus shows that Stern's life and work was doubly prevented from blossoming into a full biomedical career — in the beginning years by National Socialist-politics and then as a coworker to Cameron's program. His case can thus be seen as a “conversion” from a basic neuroscientific researcher into a fervent clinician and influential university teacher. Thus, Stern's case counts in favor of the assumption that emigration-induced scientific change must be separated from general scientific change at various levels from the individual to the cultural, although in this example this would have to be done in a narrow if not to say “negative” sense. In contrast with the first example and despite the emigration of a mind with its methods, no thorough induction of scientific change can be identified in Stern's case, but contrafactually might have well been, if the facilities at Moabit Hospital had not been resolved by Nazi officials.

Similar to Stern's individual fate in Canada, the Goldstein group fell apart and the research of its members took on a very different direction. Goldstein himself entered a private practice of neurology and psychiatry, after he had arrived in New York City in 1935, dispersing his own work between an appointment as clinical teacher of psychopathology at Columbia and further running a small neurophysiological laboratory at Montefiore Hospital.⁴ Although he stayed in close letter exchanges with other diaspora members of this former group, they all now went their own ways, such as the neuropathologist Walther Riese (Stahnisch & Pow, 2014, pp. 2466–2468), who now worked at the Medical College in Richmond, Virginia. Riese also left holist neurology and ventured into theoretical neuropsychology, and later medical history. Goldstein's former clinical psychologist, Adh mar Gelb, had died in 1936, after losing his

⁴See also Holdorff (2016) in this special issue.

chair at the University of Halle and not living up to travel to the United States, where he was to assume a professorship in experimental psychology offered to him by Kansas University. The decline of the school was further reflected in Stern's fate in Canada, who rather supplemented the neuropathological expertise at Montreal's MNI and AMI, before deciding to continue his work later as a clinical psychiatrist in Ottawa.⁵

With a view to the cultural perspective of scientific and clinical practice, it is certainly possible to see the cases of Stern, Goldstein, and Riese not simply as additional biographies related to the forced migration wave from Germany. Instead, their histories tell us more about the actual production processes of knowledge in medicine and neuroscience. On the one hand, Goldstein's group was clearly about to transfer Moabit Hospital into an important center for neuroscientific research in Germany, but the *Machtergreifung* of the Nazis diminished all their plans. On the other hand, all of these émigré neuroscientists came into preexisting clinical and research settings with their specific interplay of conceptual, personal, and research relations, in which, taking up a word of Stern's (1951, p. 77), "methods [had already] become mentalities." That is, they had to cope with the local North American research cultures and mostly had to abandon their own holistic ideas to more applied forms of neurology and patient testing, however, still influencing local practices: In Stern's case, a strong emphasis on psychoanalytical psychopathology, in Goldstein's example, a thorough way of clinical observation and history taking, and Riese served as an important role model in his faculty, combining in-depth neuropathological knowledge with clinical alertness and a wide range of historical and interdisciplinary scholarship. So in their local settings, there still survived a bit of "holist patina," which impressed faculty colleagues and strongly influenced their students. And Stern was also very influential in his relation to the younger faculty members at the AMI, for example, as the later psychiatrist and psycho-immunologist Dr. Edrita Fried (b. 1934), associate in Stern's service, has stated (Sourkes & Pinard, 1995, p. 151).

The instances of "scientific" and "knowledge changes" that can be extracted from this case example both apply to laboratory and clinical practice as well as to the emergence of new kinds of interdisciplinarity: The reconstruction of differing neuroscientific research styles or cultures hence shows the necessity to go beyond the more "classical" perspectives of the history of ideas, of institutional historiography, or the writing of individual scientists' biographies and to take the communication and teaching networks of the émigrés into account as well. This holds for the cultural patterns inscribed into thought and practice, national identities, and international contacts during the constitutional phase of the emerging neurosciences (Rosen, 1944, p. 39).⁶ Thus, it becomes possible to study the interdisciplinary exchanges in a rather in-depth manner as these continued in both collaborative clinical and theoretical work despite the disrupted and dispersed local contexts along the American East Coast, mediated by letter exchanges, phone calls, and the still very dense railway system in the 1950s.

⁵University Archives of the University of Ottawa, ON (Fonds 43 NB-3056, Karl Stern, Human Resources Files; Fonds 6 NB-9656.8), *passim*.

⁶The role of "the stranger" in creating innovative fields and disciplines in new cultural environments is of pivotal importance. Just as the social need for comparison in the immigrant individual becomes a vital property for adaptation in the new cultural surrounding, the ability to criticize and relate to preexisting research traditions assumes ample input from local cultural values, readily shaped interpretations of new observations, or clinical skills. An important, though quite dated source in related medical historiography is Rosen (1944, p. 39).

From clinical neurology and psychiatry to public mental health: The case example of Robert Weil

With respect to the North American medical context in the 1930s, and apart from the philanthropic endeavors of the “Emergency Committee for Displaced Physicians” (Zimmerman, 2006), and the assumed responsibility of the Rockefeller Foundation for its former fellows and awardees, there had to be either a substantial need for research expansion or some perceived deficiency in scientific competences and clinical care, before the knowledge of the émigrés could come into play (Pearle, 1984). Until that was the case and even in times of the transition into émigrés’ resumption of professional work, they relied heavily on scientific colleagues, politicians, business men, and even family members to facilitate their reintegration process in their new host countries. In fact, landing in the United States outside of the contemporary population quotas for German, Austrian, Czech, and Polish immigrants or without sufficient proof of having been a university teacher in the country of origin was only possible through the individual affidavit of American citizens who declared to sustain émigrés in times of financial hardship (Davie & Koenig, 1949, pp. 160–162).

Beyond émigrés’ positive experiences, the failures, backlashes, and even hostilities that many of the émigrés neuroscientists had to face in their private and working lives, deserve further scrutiny. This was particularly the case during the early years following their arrival in a generally anti-German and often even outright anti-Semitic climate before the war, which led to their exclusion from the professional job market, cultural misunderstandings as to their former positions, along with insufficient language proficiency that created many disturbances among their academic peers (Stortz, 2003, pp. 231–235). In addition, there was also a widespread mood of resignation among many of the German-speaking émigrés, particularly during the first three years of the war, when the *Blitzkrieg* brought many European countries under Nazi occupation and when family members had been imprisoned or even interned in penitentiaries and concentration camps. For some, they simply had not received any news from their loved ones on the other side of the Atlantic. Like many other contemporary immigrant groups, German-speaking émigrés also used to stay together in similar neighborhoods of major North American cities, such as the Lower East Side in New York City, Clayton Neighborhood of St. Louis, or Pacific Palisades near Los Angeles. Their constant devaluations of American culture were proverbial, with ongoing exchanges about their former experiences from previous lives in Central Europe. In their *Kaffeekraentzchen*, Salons, and *Gespraechsrunden*, which often became known as the group meetings of the Beiunskys (“*bien de chez nous*”) (Sachs, 1998), there was no separation by profession between scientists, artists, and writers, of course, serving the basic functions for moral and practical support in continued interdisciplinary exchanges (Grob, 1983).

By applying a network-oriented approach to such historical processes, the “classical” perspectives confined to certain types of “gains” and “losses” in differing neuroscientific research styles is decisively widened. Such a network approach may indeed be seen as a reformulation of what Harvard historian of science Thomas S. Kuhn (1922–1996) had once called a “disciplinary matrix” (Kuhn, 1977), that is, the commitment and involvement of individual scientists to the shared conceptual resources, values, instruments, techniques, and practices of their respective community. Thus, in the field of the neurosciences, the actions of the main players and mediators of such a matrix may be feasibly reconstructed with regard to varying organizational and contextual points (Meyer, 2001, p. 93). Regarding such specific scholarly networks in

relation to others, it has to be born in mind that their forms and characteristics varied markedly due to their intrinsic composition through the academics, economists, politicians, and non-professional actors involved. However, their results may in the end be quite equivalent, as most academic, clinical, or organizational positions were acquired via personal relations, academic references, and the reputation of the teaching or research institutions at the time. This leads also back to the central question on the elements that have triggered and fostered the theory-change in the neurosciences under various cultural, social, and institutional conditions. Exemplary are the official as well as unofficial networks within the German Research Society, the Kaiser-Wilhelm Society, and the early German Research Institution for Psychiatry that played major roles in the support, placement, and connection of the émigré neuroscientists from Central Europe in the United States and Canada (Hammerstein, 2000, pp. 219–224). Here, it is important to methodologically integrate the status of collective biographies, scientific networks, and interdisciplinary endeavors into this particular historical analysis of knowledge change in the neurosciences. In this respect, it will have to be kept in mind that not only highly skilled individual researchers had to leave Central European universities during the Nazi period, but also often whole research schools were forcefully expelled from the German-speaking countries.

As an example, I want to draw the attention to the case of clinical neurologist and psychiatrist Robert Weil (see Fig. 2), who belonged to a group of German-educated



Figure 2. Robert Weil (a very rare portrait photograph, c. 1984) from the program invitation to his funeral ceremony in 2002 (Robert Weil Correspondence, Ms 2-750, Call # 2003-47, Box 6, File 1). © Dalhousie University Archives & Special Collections, Killam Memorial Library, Halifax, Canada. Reproduced by permission of Dalhousie University Archives & Special Collections, Killam Memorial Library, Halifax, Canada. Permission to reuse must be obtained from the rightsholder.

neuroscientists of the provinces of the former Austrian-Hungarian Double-Monarchy. He was born into a Jewish family in a rural part of Bohemia, yet in his adolescence he converted to Lutheran Protestantism. Weil was one of many clinical and social psychiatrists during the 1930s, who displayed a profound research interest in various areas of psychiatry, ranging from nosology, psychoanalysis well over to the neuro- and histopathology of the brain. He had graduated from the German University of Prague in 1933 and pursued postgraduate studies in neurology and psychiatry at the Vienna Medical School. He then worked as an Army psychiatrist between 1935 and 1938 in Prague and in Bohemia, before he fled together with his family for the United Kingdom and later to Canada, following the annexation and the ceding of parts of Czechoslovakia to Germany (Baglolle, 2002, p. 64). With many other émigré medical scientists, after the passage to Canada, Weil shared the fate of many émigrés of being transported to one of the more remote areas of Saskatchewan in the Prairies, where he was allowed to practice medicine as a general practitioner between the years of 1939 and 1942. Until 1944 he interned in neurosurgery at the Saskatoon City Hospital and eventually during the war years, Weil managed to work with the Saskatchewan Mental Health Service until 1949. This marked a time of psychiatric care that he saw as “predominantly practiced under poor conditions in mental Hospitals,” and in which he regarded university psychiatric teaching to be “uncommon as a subject of study in Canadian Universities.”⁷ In comparison, neurology and psychiatry at the Charles University of Prague — Weil’s alma mater — had previously risen to international recognition under Arnold Pick (1851–1924) and Ladislav Haškovec (1866–1944), who expanded compulsory university training in neuropsychiatry, psychopathology, and areas of social psychiatry to all medical graduates.

Consequently, in this institution and later by his colleagues of the Saskatchewan Mental Hospital at Battleford, it was realized that Weil was a broadly trained psychiatrist and neurologist, who had a lot of experiences in field psychiatry, due to his earlier appointment in the medical service of the Czech Army. His biography thus represents one of numerous examples, in which a neuroscientist arriving from Central-Europe found poor clinical and mental health conditions in North America in comparison with those he was acquainted with in the German-speaking context.⁸ As Weil perceived it, the subject of mental health was quite

⁷Letter of Robert Weil, Halifax, NS, to the psychiatrist Dr. Charles A. Roberts (1918–1996) in Ottawa, dating June-7, 1986: “In 1942 I joined the Mental Health Services of Saskatchewan, my first position [in Canada] being a junior psychiatrist in the Sask. Mental Hospital in Battleford. The medical superintendent at that time was Dr. J[ack]. J. McNeil [b. 1918]—a native of Summerside, P.E.I. Dr. McNeil was a great friend of Dr. Clarence [M.] Hincks [1885–1965] who visited our hospital almost yearly. On one of these visits he was accompanied by Dr. J. Griffin. Both sat in on our conferences and also gave us the opportunity to meet and get to know them in personal conversations. Both Clarence and Jack were always welcomed [!] [sic] visitors who brought us all kind of informations [!] [sic] about the psychiatric activities, developments etc from all the provinces. They also shared with us their visions and plans for the improvements in the care for the mentally ill.”; citation taken from his typographed letter – from the folders on the Robert Weil Correspondence (Ms 2-750, Call # 2003-47, Box 8, File 15, p. 1) in the Dalhousie University Archives & Special Collections, Killam Memorial Library, Halifax, NS.

⁸For Weil’s perception of the Canadian context of psychiatry and mental health see “Group for the Advancement of Psychiatry. Reports”; “Notes & Articles on ‘Interdisciplinary Research’ ”; materials from the folders of the Robert Weil Collection (Ms 2-750, Call # 2003-47, Accession Report, Box 2, File 5; Box 5, File 3) in the Dalhousie University Archives & Special Collections, Killam Memorial Library, Halifax, NS.

uncommon at Canadian Universities and not very well established as a serviceable system in the rural areas of the country. At this critical juncture of his career, his broad knowledge in psychiatry, his engagement in setting up a wider Mental Health system, and his social contacts with leading members of the Saskatchewan Health Service and the Canadian psychiatric community earned him such recognition that Weil was hired as the first assistant Professor of Psychiatry by Dalhousie University in Nova Scotia. He even managed to get this post against the stern reluctance of the Officers of the Medical Society of Nova Scotia and their earlier policy, lasting between 1910 and 1930, not to accept “aliens” and “Jewish-born doctors” from other countries (Hincks, 1947, pp. 161–165). Weil stayed at Dalhousie University from 1950 to 1975 and then retired at the level of an associate professor. As a member of its core faculty, he exerted a strong influence on the hiring policy of that university and the organizational restructuring of its services in psychiatry, neurology, and neuropathology, in which he promoted a “German” educational style of general knowledge in psychiatric training. It is remarkable, and yet typical of many other émigré neuroscientists, that Weil displayed a thoroughly “scientific attitude” to a variety of perspectives on psychiatry. Although strongly influenced by experiencing his and his wife’s expulsion from their home country as well as the general political events, which he academically discussed and heavily criticized in many of his papers and articles. He believed in a unifying and quite cathartic effect of science on its digression in ideology and technocracy. In a way, a general outlook of science and the humanist attitude in psychiatry served for him as *residuum non destructum* in times of personal despair and general political worries after his immigration to Canada:

This discrepancy between our knowledge and our behavior makes it so difficult today to orient oneself in this chaos of our enigmatic world. Man now stands confused before his own creation complicated by so many technical devices which he is unable to control. And in his confusion and his insecurity he is always more tempted to reach for a gun than for an instrument of peace. War appears to be still a better and safer alternative to a peaceful adjustment of our environment to our needs and a better adaptation of mankind to the material world which presents itself to us.

As you see, there are two main problems we have to face in modern time. Firstly, we have to utilize our knowledge for practical application — that is a matter of economics and politics and therefore outside of my realm.

The second large problem of mankind is a psychological one. It is the problem of the adjustment of individuals and groups to the environment which is set for him the moment he is born. It is also the problem of redirecting our mental potentialities to a healthier attitude towards the material world which surrounds us & towards our fellowmen.⁹

Weil was also one of the founding members of the “Canadian Psychiatric Association” (CPA) and later in 1968 also its president. His work thoroughly introduced German ideas of social psychiatry and interdisciplinary teaching and research, while helping to establish a more effective level of education and patient care in the Canadian public mental health system (Dowbiggin, 2003). His stronger engagement with mental health issues can be seen as an individual example of change from his primary interest in somatic neurology and neuropathology. Neither in the Czech army nor in the Canadian health system could his interests be fully met (Dalhousie University, 2002, p. 1). What this example shows,

⁹From Weil’s address to the CPA in 1953; citation taken from his manuscript – Typography from the folders on the Robert Weil Correspondence (Ms 2-750, Call # 2003-47, Box 6, File 15) in the Dalhousie University Archives & Special Collections, Killam Memorial Library, Halifax, NS.

however, is definitely not that Canadian social psychiatry and the development of Dalhousie's facilities in the neurosciences could not have emerged without Robert Weil. It makes plausible that under his supervision and tutelage, the historical course taken would have had a different velocity and would have ventured into new directions (Weil & Demay, 1947; Weil, 1960). The course of these events certainly appears to be a mixture of institutional circumstances and biographical factors, as this highly intellectual man, who not only reflected in numerous sociological and philosophical articles on the cultural background of the neurosciences but also shaped and reshaped the research outlook of areas of biological psychiatry and bench neuroscience at his university, proved himself to be an effective and pragmatic science organizer, who integrated these ideas into the institutional setting of his medical school. Dalhousie, at that time, experienced an increase from two to eight professorships in neurology, psychiatry, neuropathology, and neuroanatomy, while he was an active faculty member.¹⁰

The central points addressed by Weil also strongly influenced a development in Canada, which Gerald Grob has characterized as “the emphasis on the prevention and on the provision of care and treatment in the community” for US psychiatry (Grob, 1983, p. 232). The mental health problem from large hospitalization numbers was perceived as highly demanding also by the psychiatrists of the Canadian and American psychiatric clinics and asylums — thus bearing widespread implications for the mental health system. It is important to see that émigré doctors exerted a strong impact on the Canadian and US mental health systems, which was, however, preceded by reevaluations going on in various parts of Europe, mainly in areas of the former Austro-Hungarian Empire, in Italy, Switzerland, and Germany.

From brain psychiatry to clinical neurochemistry: The case example of Heinz Lehmann

These particular refugee scientists and medical doctors must have been well trained to arrive at a tenacity of solving problems and overcoming all sorts of constraints and obstacles in their clinical or laboratory research, as was the case with many émigré neuroscientists, who had been trained in some of the leading centers in Central Europe. From a social history viewpoint, the emigration of scientists and scholars after 1933 can even be understood as a spectacular case of forced international elite-circulation, but that circulation did not happen automatically. Instead, before we may take scientific change into account, we need to question who got the opportunity to continue or begin scientific work, and thus at least a potential position to participate in changes of research trends in his or her host country? Very likely, those individuals had to have the necessary aptitude to convince greater audiences, as well as the social and basic linguistic competences to negotiate budgets with administrative officers. That the requirement of such “soft skills” is far from trivial would become fairly obvious in the case of many émigré neuroscientists, who often needed to pass medical exams before being allowed to practice again. They had

¹⁰Dalhousie University. Faculty of Medicine. Committee on medical Education. Elective Programme”; materials from the folders of the Robert Weil Collection (Ms 2-750, Call # 2003-47, Accession Report, 1st p., Box 5, File 3; Box 6, File 11) in the Dalhousie University Archives & Special Collections, Killam Memorial Library, Halifax, NS.

to find jobs in research institutes or medical faculties, and were to serve in low-paid or nonsalaried “voluntary” positions, etc. (Grossman, 1993).

For example, other “research import products” from émigré neurologists and psychiatrists — such as the neurorehabilitative approach of the holist neurologist Kurt Goldstein from Frankfurt and Berlin, the psychiatric genetics and epidemiology of the Berlin psychiatrist Franz Josef Kallmann (1897–1965), or the introduction of the psychopharmacological Chlorpromazine therapy¹¹—for a long time stood in the cultural shadow of dominant psychoanalytical theories. In American psychiatry, the clinical psychoanalysts influenced both the state hospital system as well as the large psychiatric hospitals of the Veterans Administration between the 1940s and the 1960s, before these major approaches further developed into some important research traditions in the field of modern neuroscience.¹² Moreover, Heinz Lehmann at the Allan Memorial Institute, the psychiatry department at McGill, contributed the first research publications on chlorpromazine in English in 1953 and, three years later, on the antidepressant imipramine (Anonymous, 1993, pp. 141f). Lehmann represented one of those German-speaking émigré physicians with whom Weil upheld continuous letter exchanges after their mutual emigration to Canada.¹³

When looking more closely at the contributions of individual émigré neuroscientists, such as Heinz Lehmann at McGill University, the role and influence of the process of reintegration of the exiled neuroscientists in Canada and the United States becomes more comprehensible. The vital function served by North America was that of a safe haven for the expelled scientists and intellectuals, a harbor for ideas, epistemologies, and innovative experiments, and a refuge for Europe’s cast-off intelligentsia during the rise of the Nazi tyranny, Holocaust, and Second World War. Despite a certain amount of attention paid to these “homeless intellectuals” in recent publications (Weindling, 1989; Deichmann, 1996; Israel, 2004), their impact on and relation to American science and medical culture has not yet been fully explored. For many, coming to North America was like:

parachuting from Europe into the new world of North American psychiatry at the very brink of WWII with nothing in my backpack other than Kraepelin’s and Bleuler’s guides to the diagnosis of the major psychoses, manic-depressive disorder, and schizophrenia. We had only two theories to explain the rest of the psychiatric illnesses, the neuroses and personality disorders: Freud’s psychoanalysis and Pavlov’s and Skinner’s findings on conditioning and learning.¹⁴

¹¹Chlorpromazine therapy had been introduced by the psychiatrist and biochemist Heinz Lehmann, who had promoted the development in the French-speaking literature also among the English-speaking North American research communities in psychiatry and neurology.

¹²Personal interview with MNI neurologist Fred Andermann, May 26, 2007, in the Faculty Club of McGill University in Montreal, PQ.

¹³For example, letter on August 19, 1953 by Robert Weil to Heinz Edgar Lehmann about the issue of clinical hypnosis and their mutual work on the Canadian Special Commission on “Hypnosis” and “Hypnoanalysis.” Materials from the folders of the Robert Weil Collection (Ms 2-750, Call # 2003-47, Accession Report, Box 2, File 5; Box 5, File 3) in the Dalhousie University Archives.

¹⁴Heinz Lehmann, 1995. Autographical Papers. Personal File (Professor H. Lehmann), Collections of the University Archives, McGill University, Montreal, Canada.

Faced not only with expulsion from academic working circles but also prohibited from pursuing their career (a “*Berufsverbot*”), many of the neuroscientists looked at, here, searched to escape the situation in the German-speaking countries and to establish a new professional life elsewhere.

This was also the case in the clinical neurologist and psychiatrist Lehmann, who had been born as the son of a Jewish physician in Berlin (see [Fig. 3](#)). He had himself studied medicine in Marburg, as well as at the psychiatric centers of Freiburg in Germany and Vienna in Austria. Between 1935 and 1937, he pursued postgraduate research while being a staff-attending physician (“*Assistenzarzt*”) at the Martin Luther Stift and at the Jewish hospital of Berlin. In 1937, after he had been barred to continue his medical work as a hospital physician even for his Jewish patients, he managed to immigrate to Canada on a tourist visa. Immediately after his arrival in Montreal in Quebec, he was offered the position of a hospital physician at the Verdun Protestant Hospital, which became the main clinical center of the psychiatric research divisions of McGill University’s Allan Memorial Institute (AMI). Rising fast through the academic ranks, in 1947, he even became its clinical chief, which was rather a parallel reflection of the research interests of the somatic psychiatrist Cameron at the AMI. Yet, other than in the example of Karl Stern, Lehmann could benefit strongly from the support of the scientific and clinical milieu of the AMI with its contemporary biological research

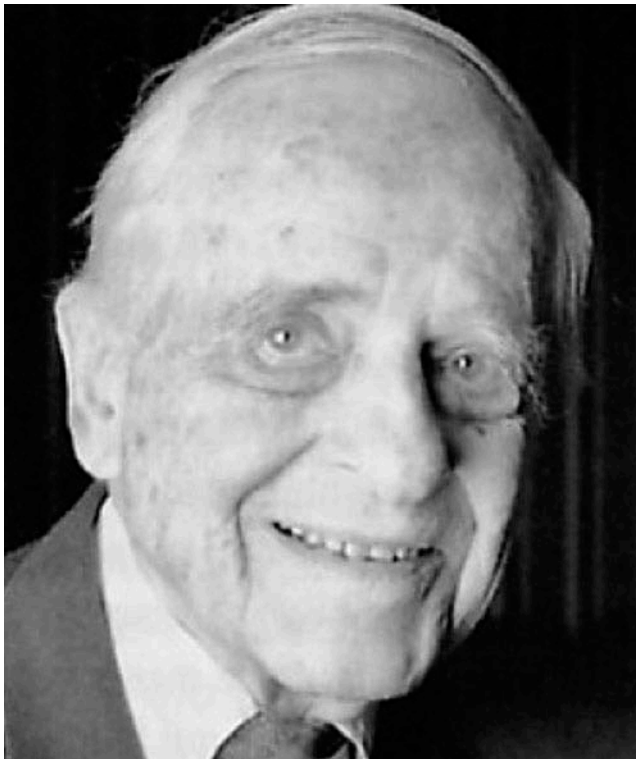


Figure 3. Heinz Lehmann, circa 1990. © Osler Library of the History of Medicine, McGill University, Montreal, Quebec, Canada. Reproduced by permission of the Osler Library of the History of Medicine, McGill University, Montreal, Quebec, Canada. Permission to reuse must be obtained from the rightsholder.

programs (Sourkes & Pinard, 1995, pp. 10–15). At the same time, Lehmann managed to turn his solid education in French language from his Berlin high school times into a large medical asset (Lehmann, 1983, pp. 145–154). Shortly after chlorpromazine had been developed by the psychiatrists and neurochemists, Jean Delay (1907–1987) and Pierre Deniker (1917–1998) in France in 1952 after World War II, Lehmann introduced the drug among the English-speaking clinical neuroscientists in North America. Lehmann now redirected his own psychiatric research solely from a psychopharmaceutical perspective and particularly towards the treatment of schizophrenic patients. One could even go so far as to view his work at McGill University as a stepping stone for his additional activities in psychiatry and public mental health in the provincial Comité de la Santé Mentale de Québec, as an American Fellow of the Collegium Internationale Neuro-Psychopharmacologium, along with being a Canadian representative and expert for the World Health Organization in New York.

A defining feature for the biographical differences between Stern and Lehmann had openly been their diverging socialization in the medical research landscape in Germany before their forced migration to Canada. Of course, they both had excellent language proficiency in French, which they could further perfect while working in the French-Canadian surroundings of Montreal. However, both émigré neuroscientists used these soft skills in quite different ways: While Stern primarily related to the francophone scientific community of Quebec and aligned through his scientific connections particularly with the psychoanalytically schooled psychiatrists of France and Quebec, Lehmann emerged as a decisive bridge-builder between the new biological tradition of psychopharmacology in France and French-speaking Switzerland with their developed pharmaceutical and chemical industries. Lehmann was an important gatekeeper, who could introduce these impulses and initiatives into the English-speaking world of North American psychiatry (Stip, 2015, p. S5).

Another instructive example of a successful, though slightly changing career in the clinical neurosciences, is the professional Silberberg-couple from Breslau, where the female pathologist Ruth Silberberg (1906–1997) had to work four years without salary while her husband, the neurohistologist Martin Silberberg (1895–1969), had to change from one low-paid and short-term position to the next one, first working in Halifax, Nova Scotia, in Canada, then in New York City and St. Louis in the United States. In his letter exchange with his mentor, the American physician Leo Loeb (1869–1959), Martin Silberberg respectively wrote on August 4, 1938, on the occasion of a job opening at the Middlesex University in Massachusetts:

Dear Dr. Loeb,

... I am sick and tired of moving around, unless it means a definitive step forward. ...
 Herefore [!] I cannot risk any more adventures.¹⁵

And also the move of the Sternbergs to the Rockefeller Institute in New York did not prove to be a great relaxation of their tense living circumstances:

¹⁵Letter of Martin Silberberg (St. Louis) to Leo Loeb (staying at Woodshole) on April-4, 1938; Archives and Rare Books Collection of the Becker Library, Washington University School of Medicine (FC0002, Leo Loeb, Correspondence R-S, Box 5, folder: Silberberg, Martin and Ruth).

Dear Doctor Loeb,

... Nothing has been heard of promotion or raises of salaries, since Dr. [Irving P.] Graef's [1902–1979] departure. I am pretty sure that no changes will take place. It is the policy of the school to exploit everybody and to make use of everybody's plight. The school has the highest percentage of Jewish [!] students, who are glad to pay fees that are about 30% higher than Yale's or Harvard's. On the other hand, the salaries paid to the Faculty are ridiculous. But, what can we do, if the difficulties to obtain a fairly decent position are unsurmountable [!]? The only good aspect is that Dr. [William C.] Von Glahn [1900–1961] lets us have our own ways in research.¹⁶

This is only one out of many examples that serves to illustrate that the North American context was bursting with all kinds of pragmatic problems, which the newly arriving émigré neuroscientists had to master before they could resume their research and clinical work.

Originality in their scientific work certainly was an important factor to enter major research groups and to gain acceptance in the scientific communities in Canada and the United States. Nevertheless, innovative ideas and the mastering of methods, which were not then accepted in their new host countries, proved to be an ambiguous advantage for the émigrés researchers. An abundant amount of methodological originality, and thus difference in clinical or research style, could easily lead to incommensurable scientific views to those held by the local research community (as in the cases of “holist neurology,” the shock therapies in brain psychiatry, or the use of the new psychopharmaceutical drugs, which had yet not been introduced in North America).¹⁷

Important in this context is that discussions on émigré scientists and physicians had long centered on a preselected group of outstanding individuals, whereas less attention was paid to those more marginal in their field. It is therefore of great importance for further advancement in the historiography of forced migration to draw specific attention to such rather hidden biographies of “normal scientists” and to cases of unsuccessful adaptation in their specific contexts. This will serve the development of a better understanding with regard of the broad transformations and the knowledge transfer in the field of neuroscience. The application of such a perspective will further enable us to also answer such questions as to why it was that the mental health system in Canada and parts of the United States appeared so “underdeveloped” in comparison with the contemporary state of psychiatry and public health in Central Europe. What were the factors that made new research initiatives possible and applicable in the North American contexts? And which factors enabled German-speaking émigrés in particular to overcome everyday problems, research constraints, and cultural differences to contribute to the research traditions of brain psychiatry and clinical neuroscience?

Although this had not been an attractive situation, it was possible to find one individual among the émigrés neuroscientists. An extraordinary pathologist Ruth Silberberg, a Breslau-

¹⁶Letter of Martin Silberberg (NYC) to Leo Loeb (St. Louis) on Dec-2, 1943; Archives and Rare Books Collection of the Becker Library, Washington University School of Medicine (FC0002, Leo Loeb, Correspondence R-S, Box 5, folder: Silberberg, Martin and Ruth).

¹⁷This made it even harder to find good integration into day-to-day-research work in “normal science” and implies that some narratives will clearly fall into areas of traditional science studies and historical epistemology, as they are current since the works of Thomas S. Kuhn (1962), Georges Canguilhem (1966), Robert K. Merton (1973).

trained developmental brain scientist, who fled with her husband, the neurohistologist Martin Silberberg, first to Halifax and eventually settled in St. Louis, although changing to general pathology during that time. Ruth accepted invitations through the German Pathological Society and individual university institutes to give guest lectures and seminars in Germany during the late 1950s and early 1960s. It was only at the time of Martin's death that she decided to accept an adjunct professorship at the University of Zurich where she frequently taught during the summer break.¹⁸ Ruth Silberberg intriguingly represents an émigré researcher who had an important voice in both medical communities — one that was strongly heard in her own field of pathology as well as in clinical education (cf. Magoun, 2002, p. 151f).

Discussion

As mentioned in the introduction of this article, a more or less unquestioned belief in the historiography of science and medicine at large suggests that the process of forced migration in twentieth-century medicine and natural science can be specifically viewed as a process leading to a “brain gain” of the receiving countries (such as the United States and Canada in North America) (Quirke & Gaudillère, 2008, p. 442). The related view has nearly gone uncontested, namely that it made no difference for a biomedical researcher to substitute Frankfurt am Main for Ottawa, Ontario, Breslau for Halifax, Nova Scotia; or Berlin for Montreal, Quebec, as the respective sites for their research programs and clinical activities. This assumption had some plausibility when compared with the careers of émigré professionals in the arts, in politics, or in the legal sphere (Strauss & Roeder, 1983).

At a second glance, however, the above position of international universality is also not compelling when it is compared with other immigrant groups in the arts and film actors of the Hollywood entertainment industry. In these seemingly unrelated fields, a transfer of knowledge and people could not take place without having to face greater cultural problems (Taylor, 1983, pp. 11–20). The historical analysis of the group of émigré neuroscientists thus presents itself as a most interesting test case for newer approaches in the historiography of science that have interpreted the evolution and aberrations of the biomedical enterprise on grounds of their entanglement with culture. Using historiography as a detailed description of research, laboratory practices, and clinical care approaches allows for a more adequate view of the underlying historical processes, particularly an integration of various communities of neurologists, psychiatrists, and brain investigators into preexisting American research cultures.

In order to come to terms with the cultural differences, which German-speaking émigré neuroscientists experienced when they adapted to North American research and clinical institutions, scientific foundations, and structure of politically influenced forms of research organization, their experiences in the biomedical field at the end of the Weimar Republic and the beginning of the Nazi period in Germany also need to be kept in mind (Roelcke, 2006, pp. 73–87). When considering the transfer of such multifaceted patterns of clinical and basic research, laboratory practices, and interdisciplinary linkages with mental asylums, as well as anthropological research institutions, especially the more hidden biographies and local

¹⁸See in Archives and Rare Books Collection of the Becker Library, Washington University School of Medicine (FC0002, Leo Loeb, Correspondence R-S, Box 5, folder: Silberberg, Martin and Ruth), no page number.

research cultures in the context of the forced migration wave of German-speaking neuroscientists to Canada and the United States, left numerous traces of the setbacks and challenges, which they encountered when they tried to recommence their careers in the North American scientific and clinical milieus. With respect to the case examples discussed in this article, we have seen that the appropriation of new laboratory practices and clinical concepts in the research communities also supported new forms of interdisciplinarity working relations that became so decisive for the neurosciences today. Nevertheless, when looking at the personal experiences, group mentalities, and even the soft skills learned “the hard way,” it has likewise become tangible how the research programs of émigré neuroscientists reflected their foregoing experiences in the medical and health care cultures from the late Wilhelminian Empire to the onset of Nazism and Fascism in Central Europe, as well as the problems and setbacks they encountered, when making the very demanding transition to North America and its preexisting research cultures.

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