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# Introduction to "Émigré Psychiatrists, Psychologists, and Cognitive Scientists in North America since the Second World War"

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#### Abstract

The reverberations of the Second World War caused the loss of up to one-third of all academic psychiatrists and cognitive scientists from Germany and occupied Central European countries between 1933 and 1945. These disastrous developments for the wider academic landscape in many ways annihilated the foundation of German-speaking psychiatric and clinical psychological research. Indeed, many historiographical studies have drawn attention to this very point over recent decades. At the same time, the impact of the vast forced-migration wave of Jewish and politically oppositional psychiatrists and scientists from Nazi-occupied Europe has repeatedly been seen as a process of mere "brain gain" for North America, while Central Europe — and Germany in particular — experienced the loss. This onedimensional perspective is of primary research concern in the articles in this special issue of History of Intellectual Culture: in scholarly literature, the case of forced migration has raised questions as to the research involvement of science in society, the interaction of professional networks, and the establishment of international relations as these evolved during the first half of the twentieth century. As the historians assembled in this special issue put forward, the emergence of "new intellectual cultures" can be attributed to the scientific adaptation processes of émigré psychiatry researchers and cognitive scientists, which have altered the scientific landscapes on both sides of the Atlantic.

The artificial exodus of physicians, scientists, and academics from German-speaking countries after 1933 allows for new investigative approaches that extend the scholarly view beyond providing access to many individual biographies and clinical accounts. This is reflected, for example, in the historical collections of the Rockefeller Archive (New York), the Canadian National Archives (Ottawa), the Society for the Protection of Science and Learning Archives (Oxford), and the plethora of university and college archives in North America. Other places around the world are relevant here as well, taking into account the process of onward migration. The available institutional histories in this research field, together with the detailed analysis of personal experiences and individual legacies of German-speaking émigré psychiatry researchers and cognitive scientists, offer us deep insights into the manifold contingencies, interrelated contexts, and structures and constraints of knowledge transfer processes. These often occurred as a consequence of the integration of differing communities of psychiatric researchers and cognitive scientists into their new host countries. With such historiographical considerations in mind, the focus of our special issue in History of Intellectual Culture is on understanding the powerful merging of methods, technologies, and disciplinary programs that emanated from the above-mentioned research perspectives. While studies of the receiving countries tended to analyse the intellectual, academic, and institutional dimensions of the forced-migration process, the individual fates and social problems of many émigré psychiatrists and cognitive scientists hardly attracted attention. The six articles and commentary assembled in this special issue track their crucial work for the development of psychological, psychiatric, and cognitive science research in the context of Canada and the United States, while these academic refugees encountered manifold problems and often pursued their careers under completely changed circumstances. The topics of this special issue include Turkish refugees, Great Britain as a country for onward migration, differences in the training and research backgrounds of German- and English-speaking psychiatrists, the group of German-trained cognitive scientists, case

examples from clinical psychologists in Canada, and examinations of career changes in émigré neuropathologists and émigré psychiatrists involved in indemnification trials of Holocaust survivors and Nazi refugees.\*

#### Introduction

This special issue of *History of Intellectual Culture* analyses several aspects of the dramatic forced-migration wave of intellectuals, academics, and scientists during the time of Nazism and fascism in Europe, spanning the 1930s and 1940s.¹ It delves into a remarkable story, since probably no other single migratory event in modern global history shaped today's landscape and scientific system in psychiatry, clinical psychology, and the cognitive sciences as much as the large-scale forced migration of approximately 3,000 Jewish and oppositional scientists, along with 6,000 physicians and health care researchers.²

Among the latter group were almost 600 individuals trained in psychiatry and its allied fields<sup>3</sup> who fled principally to the United States, Canada, Great Britain, and other countries of the Empire-Commonwealth.<sup>4</sup> Although the research topic is no longer new, we only have tentative historical or sociological overview accounts of what was the impact and general value of the forced migration to Great Britain and North America in the sciences and post-secondary education.<sup>5</sup> This special issue provides additional research and offers new perspectives from the history of science, the history of intellectual culture, global migration history, North American history, and the social history of interdisciplinarity in the twentieth century. The ideas addressed in this special issue centre on the massive forced migration of Central European intellectuals,<sup>6</sup> researchers, and physicians, which undoubtedly led to one of the most powerful

<sup>\*</sup>I wish to thank Mitchell G. Ash from the University of Vienna, Austria, as well as Paul Stortz from the University of Calgary, Canada, who read previous manuscript versions and provided important feedback on this introductory article. Keith Hann (University of Calgary) and Leslie Saffrey (Toronto) are thanked for their meticulous revision of the English language of the final article. The production of this special issue of *History of Intellectual Culture* was supported through a grant for an interdisciplinary working group (German-speaking Émigré Neuroscientists and Biomedical Researchers, 1933–1963) at the Calgary Institute for the Humanities, University of Calgary Faculty of Arts, and a Canadian Social Sciences and Humanities Research Council enhancement grant ("The Forced Migration of German-speaking Neuroscientists and Biomedical Researchers") through the University of Calgary's Research Grant Committee (# 10005402). Frank W. Stahnisch further thanks Paul Stortz for making possible the Guest-Editorship for this specialized issue on "Émigré Psychiatrists, Psychologists, and Cognitive Scientists in North America since the Second World War." Several of the articles were previously presented during a themed panel on 30 May 2016 at the Canadian Society for the History of Medicine, in conjunction with the Canadian Historical Association. The editor and all authors are grateful for support from the Canadian Federation for the Humanities and Social Sciences, which also enabled the planning for this special issue of *History of Intellectual Culture*.

<sup>&</sup>lt;sup>1</sup>Paul Weindling, "The Impact of German Medical Scientists on British Medicine: A Case Study of Oxford, 1933–1945," in *Forced Migration and Scientific Change: Émigré German-Speaking Scientists and Scholars after 1933*, eds. Mitchell G. Ash and Alfons Soellner (Washington, DC: The German Historical Institute; Cambridge, UK: Cambridge University Press, 1996), 86–114.

<sup>&</sup>lt;sup>2</sup> John Cornwall, Hitler's Scientists: Science, War, and the Devil's Pact (London: Penguin, 2004)

<sup>&</sup>lt;sup>3</sup> Saul Friedlaender, Nazi Germany and the Jews: The Years of Persecution (London: Routledge, 1997), 302–19.

<sup>&</sup>lt;sup>4</sup> Paul R. Bartrop, ed., False Havens – The British Empire and the Holocaust (Lanham, NY: University Press of America, 1995), vii–xiv.

<sup>&</sup>lt;sup>5</sup> Doron Niederland, "Jewish Emigration from Germany in the First Years of Nazi Rule: The Emigration of Jewish Academics and Professionals from Germany in the First Years of Nazi Rule," in *Leo Baeck Institute Yearbook*, ed. Doron Niederland (Oxford and New York: Berghahn Books, 1988), 285–300.

<sup>&</sup>lt;sup>6</sup>Lewis A. Coser, Refugee Scholars in America: Their Impact and Their Experiences (New Haven, NJ: Yale University Press, 1984), 19–89.

amalgamations of scientific and intellectual fields in psychiatric research and the sciences of the mind and brain, including neurology and psychiatry.<sup>7</sup>

Besides prominent academics — such as physicist and Nobel Prize laureate Albert Einstein (1879–1955),<sup>8</sup> social philosopher Theodor W. Adorno (1903–1969),<sup>9</sup> and neurochemist and Nobel Prize laureate Otto Loewi (1873–1961)<sup>10</sup> — the influence of lesser-known figures in "normal science,"<sup>11</sup> as well as in medicine and academia, on higher learning in Western countries remains under-explored. This topic needs to be considered together with the traumatic experiences of many of the refugee physicians, scientists, and psychologists during their prolonged phases of onward migration to North America:<sup>12</sup>

The moral was sound. America and Britain gained from the intellectual migration, Germany lost. But the [historiographical lesson] is that most discussions of the topic to date have been overwhelmingly impressionistic, systematically skewed in favour of the most salient individuals and impulses, deficient in adequate quantification if any, and almost wilfully uncritical, as if to keep from diluting the morale of the tale.<sup>13</sup>

We do not yet have a passable overview of the scientific impact and social value of the overall forced-migration wave to Great Britain and North America. Our special issue takes on this question in a more focused, case-based, and realist interpretation of scientific and professional biographies by examining the influence of German-speaking psychiatric researchers, clinical psychologists, and cognitive scientists since 1933 — the year that the Nazi party seized power in Germany. The period of investigation concludes in 1989, which saw the ending of the bloc structures of the Cold War and limited certain re-migratory tendencies and exchanges with the communist East.<sup>14</sup>

The historical results give further hints as to the significance of the academic developments for the fields of psychology, psychiatry, and the cognitive sciences during the twentieth century. As such, the individual contributions to this special issue are of exceptional value for the historiographical, epistemological, philosophical, and methodological aspects of science studies and history of science, while serving as exemplary cases of an important yet hitherto neglected theoretical field. This international collaborative undertaking contributes to a growing body of literature in the history of science and of intellectual culture, while focusing on the elements, causes, and factors of interdisciplinarity in modern research landscapes of the mind and brain. The impact of migration patterns on the generation, change,

<sup>&</sup>lt;sup>7</sup> This has been convincingly shown in recent research by Max Stadler, "Circuits, Algae, and Whipped Cream: The Biophysics of Nerve, ca. 1930," in *The History of the Brain and Mind Sciences: Technique, Technology, Therapy*, eds. Delia Gavrus and Stephen T. Casper (Rochester, NY: University of Rochester Press, 2017), 107–35; see also the book review by Paul Foley in this special issue of *History of Intellectual Culture*.

<sup>&</sup>lt;sup>8</sup> Abraham Pais, "Subtle Is the Lord . . . ": The Science and the Life of Albert Einstein (Oxford: Oxford University Press, 1982).

<sup>&</sup>lt;sup>9</sup>Thomas Wheatland, The Frankfurt School in Exile (Minneapolis: University of Minnesota Press, 2009), 35–60.

<sup>&</sup>lt;sup>10</sup> Konrad Loeffelholz, "The Persecution of Pharmacologists in Nazi Germany and Austria," Naunyn's & Schmiedeberg's Archives of Pharmacology 383, 3 (2011): 217–25.

<sup>&</sup>lt;sup>11</sup> Cf. Thomas S. Kuhn, The Structure of Scientific Revolutions (Chicago: Chicago University Press, 1962), 1–9.

<sup>&</sup>lt;sup>12</sup> Henry Krystal and William G. Niederland, *Psychic Traumatization; Aftereffects in Individuals and Communities* (Boston: Little, Brown, 1971), 11–28.

<sup>&</sup>lt;sup>13</sup>These innovative research trends have been described, for example, in Ash and Soellner, *Forced Migration and Scientific Change*, ix.

<sup>&</sup>lt;sup>14</sup> Stephen Fortescue, The Communist Party and Soviet Science (London: Palgrave MacMillan, 1986), 2–4.

<sup>&</sup>lt;sup>15</sup> Naomi Oreskes and Andrew Krige, eds., *Science and Technology in the Global Cold War* (Cambridge, MA: MIT Press, 2014).

<sup>&</sup>lt;sup>16</sup> Cf. Timothy Lenoir, *Instituting Science: The Cultural Production of Scientific Disciplines* (Stanford, CA: Stanford University Press, 1997).

and application of knowledge due to the process of forced migration has often been overlooked in the existing scholarship on the forced migration of psychiatric researchers and academics in psychology. The bulk of the work tended to examine art history, film, sociology, psychoanalysis, and philosophy in their British and American diasporas. Our special issue now seeks to link the individual case studies to wider fields of global history, Jewish studies, education research, immigration studies, and the sociology of academic associations.

## **Historiographical Considerations**

As a general development, the twentieth century witnessed the emergence of extraordinary numbers of interdisciplinary research fields. <sup>18</sup> Through these processes, the empirical sciences were correspondingly transformed by integrating and absorbing economic, social, cultural, and philosophical changes. Such interdisciplinary approaches morphed into effective research strategies, particularly in the life sciences and biomedical research, and also in atomic physics and computer science. <sup>19</sup> While the above-mentioned trend has been often noted in twentieth-century history of science accounts, <sup>20</sup> it raises several analytical concerns in need of scholarly attention: the factors which triggered collaborative work and the emergence of large-scale scientific research institutions need to be further examined.

While many authors have pointed to émigré scientists' and intellectuals' forced departure from the German-speaking countries since the 1930s<sup>21</sup> as a major factor in the emergence of innovative research communities in North America,<sup>22</sup> we still lack historical corroboration of refugee academics' impact. In contrast to the better-documented histories of computer science and atomic physics, available research literature in the life sciences remains far from offering a comprehensive picture of German-speaking émigré psychiatry researchers and cognitive scientists in North America, despite impressionistic claims that they gave rise to something "radically new."<sup>23</sup> Cognitive science specifically was a new and emerging

Communicative Streams, ed. and ann. Louise H. Marshall (Lisse, Netherlands: Swets & Zeitlinger, 2002), 405–10.

<sup>&</sup>lt;sup>17</sup> Mitchell G. Ash, *Gestalt Psychology in German Culture, 1890–1967: Holism and the Quest for Objectivity* (Cambridge, UK: Cambridge University Press, 1995).

<sup>&</sup>lt;sup>18</sup> Ute Deichmann and Benno Mueller-Hill, "Biological Research at Universities and KaiserWilhelm Institutes in Nazi Germany," in *Science, Technology, and National Socialism*, eds. Monika Renneberg and Mark Walker (Cambridge, UK: Cambridge University Press, 1994), 160–83; Ute Deichmann, *Biologists under Hitler*, 2nd ed. (Cambridge, MA: Harvard University Press, 1995), originally published as *Biologen unter Hitler: Vertreibung, Karrerien, Forschung* (Frankfurt: Verlag, 1992); Ute Deichmann, "Emigration, Isolation and the Slow Start of Molecular Biology in Germany," *Studies in History and Philosophy of Biological and Biomedical Sciences* 33, 3 (2002): 449–71; Jonathan Harwood, "Weimar Culture and Biological Theory: A Study of Richard Wolterede (1877–1944)," *History of Science* 24, 3 (1996): 347–77; Toby Appel, *Shaping Biology: The National Science Foundation and American Biological Research*, 1945–1975 (Baltimore, MD: Johns Hopkins University Press, 2000).

<sup>&</sup>lt;sup>19</sup> Klaus Hentschel, ed., *Physics and National Socialism: An Anthology of Primary Sources* (Berlin: Birkhaeuser, 1996); Karin Knorr-Cetina, *Epistemic Cultures: How the Sciences Make Knowledge* (Cambridge, MA: Harvard University Press, 1999). <sup>20</sup> For example, see Jeff Hughes, *The Manhattan Project: Big Science and the Atomic Bomb* (New York: Columbia University Press, 2003).

<sup>&</sup>lt;sup>21</sup> Ingrid G. Farreras, Caroline Hannaway, and Victoria A. Harden, eds., *Mind, Brain, Body, and Behavior: Foundations of Neuroscience and Behavioral Research at the National Institutes of Health* (Amsterdam: IOS Press, 2004).

<sup>&</sup>lt;sup>22</sup> Donald Fleming and Bernard Bailyn, eds., *The Intellectual Migration: Germany and America*, 1930–1960 (Cambridge, MA: Belknap Press, 1969); Laura Fermi, *Illustrious Immigrants. The Intellectual Migration from Europe* 1930–1941 (Chicago: Chicago University Press, 1975); John Russell Taylor, ed., *Strangers in Paradise: The Hollywood Émigrés* 1933–1950 (New York: Holt Rinehart and Winston, 1983); Herbert A. Strauss and Werner Roeder, eds., *International Biographical Dictionary of Central European Émigrés* 1933–1945: *The Arts, Sciences, and Literature* (Munich: K.G. Saur, 1983); Kathrin M. Pearle, "Aerzteemigration nach 1933 in die USA: Der Fall New York," *Medizinhistorisches Journal* 19, 1 (1984): 112–37.

<sup>23</sup> Horrace W. Magoun, *American Neuroscience in the Twentieth Century: Confluence of the Neural, Behavioural, and* 

interdisciplinary research field following the Second World War, drawing on loose connections among psychology, psychiatry, computer science, mathematics, linguistics, and cognitive neuroscience. It became innovatively placed around the cognitive tools that scholars and scientists employed and the techniques they used to understand the experimental, clinical, and thinking pathways of human cognition.<sup>24</sup>

This special issue of *History of Intellectual Culture* delves into this insufficiently explored terrain. It advances our knowledge about the quantitative and qualitative effects of German-speaking émigrés, as well as their influences on the shaping of interdisciplinary research landscapes in North American psychiatry, psychology, and cognitive science — despite the often marginal, eccentric, and underprivileged state in which they found themselves in their host countries:<sup>25</sup>

No matter how well they may do, exiles are always eccentrics who *feel* their difference (even as they frequently exploit it) as a kind of orphanhood. Anyone who is really homeless regards the habit of seeing estrangement in everything modern as an affection, a display of modish attitudes. Clutching difference like a weapon to be used with stiffened will, the exile jealously insists on his or her right to refuse to belong.<sup>26</sup>

The émigrés to the United States and Canada — approximately 9,000 scientists, intellectuals, and physicians and more than 500 individuals who were trained in psychiatry, clinical psychology, and cognitive science (using data from the Leo Baeck Institute and European Encyclopaedia of Emigration Research)<sup>27</sup> — were a significant proportion of the approximately 20,000 professionals and intellectuals forced to leave Germany after 1933.<sup>28</sup> In addition, they were a particularly innovative group, who contributed substantially to their new host countries.<sup>29</sup> This process, however, must be seen as often unplanned and contingent on many local factors and personal resources that émigré scholars and scientists brought with them. Sometimes these were pieces of knowledge and practical skills that could be inserted into pre-existing knowledge communities in their host countries, but very often they were reflections and results of dynamic university and research cultures that had themselves been in flux; for example, the modernization needs in the British scientific and medical system, or the trend toward expansion in Canadian post-secondary institutions during and especially after the Second World War.

<sup>&</sup>lt;sup>24</sup> Nancy J. Neressian, "Opening the Black Box: Cognitive Science and History of Science," Osiris 10, 1 (1995): 194–211.

<sup>&</sup>lt;sup>25</sup> Walter Strickhausen, "Kanada," in *Handbuch der deutschsprachigen Emigration 1933–1945*, ed. Claus-Dieter Krohn (Darmstadt, Germany: Primus, 1998), 284–97; Paul Stortz and E. Lisa Panayotidis, "Select Bibliography on the History of the Professoriate in Canada since 1985," in *Historical Identities: The Professoriate in Canada*, eds. Paul Stortz and E. Lisa Panayotidis (Toronto: University of Toronto Press, 2004), 381–412.

<sup>&</sup>lt;sup>26</sup> Taylor, Strangers in Paradise, 363.

<sup>&</sup>lt;sup>27</sup> Doron Niederland: "Jewish Emigration from Germany"; Claus-Dieter Krohn, "Vereinigte Staaten von Amerika," in *Handback der deutschsprachigen Emigration* 1933–1945, ed. Claus-Dieter Krohn (Darmstadt, Germany: Primus, 1988): 446–66; Sulamit Volkov, "Jewish Scientists in Imperial Germany (Parts I and II)," *Aleph. Historical Studies in Science and Judaism* 1, 1 (2001): 1–36.

<sup>&</sup>lt;sup>28</sup> Paul Weindling, *Health, Race and German Politics between National Unification and Nazism, 1870 to 1945* (Cambridge, UK: Cambridge University Press, 1993); Weindling, "The Impact of German Medical Scientists on British Medicine." <sup>29</sup> For example, see Frank W. Stahnisch, "German-Speaking Émigré-Neuroscientists in North America after 1933: Critical Reflections on Emigration-Induced Scientific Change," *Oesterreichische Zeitschrift fuer Geschichtswissenschaften (Vienna)* 21, 1 (2010): 36–68; Frank W. Stahnisch, "Learning Soft Skills the Hard Way: Historiographical Considerations on the Cultural Adjustment Process of German-Speaking Émigré Neuroscientists in Canada, 1933 to 1963," *Journal of the History of the Neurosciences* 25, 3 (2016): 299–319.

The collaborative research articles assembled in this special issue explore how a social process of immigration changed and transformed the modern research landscapes in Canada and the United States,30 as well as in Great Britain.31 Ensuing academic changes included, for example, (1) department-based research programs in psychophysiology, clinical neurology, biology, and anatomy leading to integrated centres which cut across disciplinary boundaries;<sup>32</sup> (2) faculty-dependent units becoming autonomous research institutes (e.g. McGill's Allan Memorial Institute and the Montreal Neurological Institute), which often became "mini-universities within universities;" 33 and (3) traditional academic educational paths (in psychiatry and medicine) turning into innovative academic careers that did not exist in the nineteenth and early twentieth centuries — leading to "big science" reorganizations after the Second World War.34 A few important studies in the history of biomedicine and psychiatry are those of Toby Appel, Lilly Kay, Ute Deichmann, and Gerald Geison.<sup>35</sup> Yet these do not sufficiently explore the importance of interdisciplinarity, but rather focus on "the cultural production of scientific disciplines" or "a modern system of scientific disciplines."37 The individual contributions in this special issue, therefore, provide case studies that trace the career patterns of the émigrés. Social processes, career patterns, biographical experiences, and scientific changes can thus be seen as related to one another, causally and otherwise. Career changes also prompted methodological changes, new work opportunities led to institutional and organizational transformations, and the very experience of expulsion and forced migration raised new scholarly and scientific questions as is seen in the case studies assembled here.

Our collaborative special issue forges some explanations of the results of large-scale forced migration of European psychiatry researchers and cognitive scientists by also looking at the experimental studies of cognition that have been carried out in clinical settings and by medicine-oriented researchers.<sup>38</sup> Among the latter group were figures like Tilly Edinger (1897–1967) at Harvard University, who became a founder of modern palaeoneurology, and who enriched the North American research landscape. Further cases include Otto Loewi at Rockefeller University, a Nobel Prize winner who laid the foundations of modern

<sup>&</sup>lt;sup>30</sup> Donald Avery, *Reluctant Host: Canada's Response to Immigrant Workers, 1896–1994* (Toronto: McClelland & Stewart, 1995): 109–11.

<sup>&</sup>lt;sup>31</sup> Cf. Paul Weindling, Shula Marks, and Laura Wintour, eds., *The Plight, Persecution, and Placement of Academic Refugees*, 1933–1980s (Oxford: Oxford University Press, 2011).

<sup>&</sup>lt;sup>32</sup> We need to be aware in this context that the émigré populations in each case could also have been quite different from one another — psychologists from psychiatrists, psychophysiologists from neuroanatomists — as earlier historical studies have shown. Only a minority of émigré psychologists, for example, had medical degrees or worked in medical settings either before or after their enforced migration, while at the same time they shared similar émigré networks, knew each other at the research institutions they worked in, and cooperated in decision-making processes towards larger academic aims. See, for example, Mitchell G. Ash, "Historicizing Mind Science: Discourse, Practice, Subjectivity," *Science in Context* 5, 2 (1992): 193–207.

<sup>33</sup> Roger Clinghorn, "The Emergence of Psychiatry at McGill," Canadian Journal of Psychiatry 29, 3 (1984): 551-6.

<sup>&</sup>lt;sup>34</sup> Alan Weinberg, *Reflexions on Big Science* (Cambridge, MA: MIT Press, 1967); Jeff Hughes, *The Manhattan Project: Big Science and the Atomic Bomb* (New York: Columbia University Press, 2003).

<sup>&</sup>lt;sup>35</sup> Toby A. Appel, *Shaping Biology: The National Science Foundation and American Biological Research*, 1945–1975 (Baltimore, MD: Johns Hopkins University Press, 2000); Lilly E. Kay, "Rethinking Institutions: Philanthropy as an Historiographic Problem of Knowledge and Power," *Minerva* 35, 2 (1997): 283–93; Ute Deichmann, "Emigration, Isolation and the Slow Start of Molecular Biology in Germany," *Studies in History and Philosophy of Biological and Biomedical Sciences* 33, 4 (2002): 449–71; Gerald Geison, "Scientific Change, Emerging Specialities, and Research Schools," *History of Science* 19, 1 (1981): 20–40.

<sup>&</sup>lt;sup>36</sup> Timothy Lenoir, *Instituting Science: The Cultural Production of Scientific Disciplines* (Stanford, CA: Stanford University Press, 1997).

<sup>&</sup>lt;sup>37</sup> Helga Nowotny, "The Place of People in our Knowledge," European Review 7, 2 (1999): 247–62.

<sup>&</sup>lt;sup>38</sup> Uwe-Hendrik Peters: "Emigration deutscher Psychiater nach England. (Teil 1:) England als Exilland fuer Psychiater," Fortschritte der Neurologie, Psychiatrie und ihrer Grenzgebiete 64, 1 (1996): 161–7.

neurosynapse research, Heinz Lehmann (1911–1999) at McGill University in Montreal, who introduced the first synthetic psychoactive drug, chlorpromazine, and Eric Kandel (born 1929) at Harvard University, a Nobel Prize winner who worked on memory processes in laboratory research settings.<sup>39</sup> To understand their pivotal scientific role, the German-speaking context is important. It provided early and intriguing interdisciplinary forms of research organization in major urban centres such as Vienna (1880s), Berlin (1910s), and Munich (1920s).<sup>40</sup> This also means that the time frame of the individual case studies is an extended one, from 1933 to 1989 (the end of the Cold War), connecting scholars and scientists who were trained in Germany or Austria with those, like Eric Kandel, who migrated as children and acquired most of their training in the so-called host countries. As will nevertheless become apparent from the individual contributions to this special issue, the age at migration and generational differences in general were very significant. The set time frame further allows us to address both the immediate consequences of disruption and constraints to the careers of émigré psychologists, psychiatrists, and cognitive scientists, through examining issues of change in concepts, programs, and disciplinary settings. This helps to more systematically examine the impact of the émigrés, facilitating new understandings of how émigrés contributed to many changes during the specific period in question.

Previous studies on émigré scientists, physicians, and academics — including the exhaustive approach of the German social historians Herbert A. Strauss and Werner Roeder, along with detailed historical investigations of change in the sciences and humanities by historians of science and politics Mitchell Ash and Alfons Soellner — have concentrated on individual biographies and the big political events that affected refugees. Ash and Soellner's 1996 volume *Forced Migration and Scientific Change* set a trend, departing from the older "contributions perspective," and it established a process-oriented approach similar to that of our special issue. Ash, Soellner, and others continued this approach over the following decade, advocating for a fundamental change of historiographical perspective and favouring a process-oriented perspective that envisages specific dynamics of change.

<sup>39</sup> Wenda Focke, *Begegnung*. Herta Seidemann Psychiatrin-Neurologin 1900–1984 (Konstanz: Hartung-Gorre, 1984); Ruth Leys and Richard B. Evans, *Defining American Psychology: The Correspondence Between Adolf Meyer and Edward Bradford Titchener* (Baltimore, MD: The Johns Hopkins University Press, 1990); Helmut Haentzschel, "Der Exodus von Wissenschaftlerinnen: 'Juedische' Studentinnen und was aus ihnen wurde," *Exil* 12, 1 (1992): 43–53; Eric J. Kandel, *In Search of Memory. The Emergence of a New Science of Mind* (New York: W.W. Norton, 1996), 54–66; Frank W. Stahnisch, "Zur Zwangsemigration deutschsprachiger Neurowissenschaftler nach Nordamerika: Der historische Fall des Montreal Neurological Institute," *Schriftenreihe der Deutschen Gesellschaft fuer Geschichte der Nervenheilkunde* 14, 1 (2006): 414–42.

<sup>&</sup>lt;sup>40</sup> Frank W. Stahnisch: "Transforming the Lab: Technological and Societal Concerns in the Pursuit of De- and Regeneration in the German Morphological Neurosciences, 1910–1930," *Medicine Studies: An International Journal for History, Philosophy, and Ethics of Medicine & Allied Sciences* 1, 1 (2009): 41–54; Frank W. Stahnisch: "Die amerikanische Rockefeller Foundation, deutsche Hirnforschung sowie einige Raetsel der internationalen Forschungsfoerderung und des Wissenschaftsaustauschs zwischen 1930 und 1945," *Schriftenreihe der Deutschen Gesellschaft fuer Geschichte der Nervenheilkunde* 15, 1 (2009): 187–214.

<sup>&</sup>lt;sup>41</sup> Strauss and Roeder, International Biographical Dictionary of Central European Émigrés 1933–1945; Ash and Soellner, Forced Migration and Scientific Change.

<sup>&</sup>lt;sup>42</sup> Also see Lewis A. Coser, *Refugee Scholars in America: Their Impact and Their Experiences* (New Haven, CT: Yale University Press, 1984); Karoline Decker, "Divisions and Diversity: The Complexities of Medical Refuge in Britain, 1933–1948," *Bulletin of the History of Medicine* 77, 4 (2003): 850–73.

<sup>&</sup>lt;sup>43</sup> Cf. Mitchell G. Ash, "Cultural Contexts and Scientific Change in Psychology: Kurt Lewin in Iowa," American Psychologist 47, 2 (1992): 198–207; Thomas Sturm and Mitchell G. Ash, eds., Psychology's Territories: Historical and Contemporary Perspectives from Different Disciplines (Mahwah, NJ: Lawrence Erlbaum, 2006); Mitchell G. Ash, "Forced Migration and Scientific Change in the Nazi Era," Oberwolfach Reports 51, 1 (2011): 6–10; Alfons Soellner, Deutsche Politikwissenschaftler in der Emigration. Ihre Akkulturation und Wirkungsgeschichte, samt einer Bibliographie (Opladen: Westdeutscher Verlag, Opladen, 1996); Shula Marks, Paul Weindling, and Laura Wintour, eds., In Defence of Learning —

Our special issue of *History of Intellectual Culture* considers the "brain gain" in North America and Great Britain that the new arrivals precipitated.<sup>44</sup> Yet it also ponders technical skills, organizational patterns, and specific scientific know-how transported *with* refugee academics from Germany, Austria, and Hungary.<sup>45</sup> Studies of émigré psychologists, psychiatrists, and cognitive scientists provide a framework for in-depth analyses of essential topoi of historical epistemology and the interchange of practice and theory,<sup>46</sup> the organization of group research, and cultural differences in institutional settings.<sup>47</sup>

Since the aim of this international special issue is to enrich current debates about "scientific cultures" or "science in context,"<sup>48</sup> the assembled articles show how new interdisciplinary research fields developed, for example, in psychiatry research, clinical neuroscience, and cognitive psychology.<sup>49</sup> It comes as no surprise, then, that the first "Neuroscience Study Program," one of several new interdisciplinary academic societies evolving in the early 1960s from the biophysics research of Francis O. Schmitt (1903–1995) at the Massachusetts Institute of Technology<sup>50</sup> included a substantial number of émigré researchers and academics. Historiographically, the study further concentrates on interactions with not only physiologists, psychoanalysts, and physicians, but also mathematicians, computer scientists, and so on.<sup>51</sup> These fields

*The Plight, Persecution, and Placement of Academic Refugees, 1933–1980* (New York: Oxford University Press for The British Academy, 2011).

<sup>&</sup>lt;sup>44</sup> Cf. Jean Medawar and David Pyke, *Hitler's Gift: The True Story of the Scientists Expelled by the Nazi Regime* (New York: Arkade Publishing, 2001); Lothar Koch and Eric Koch, *Deemed Suspect: A Wartime Blunder* (Toronto: Methuen, 1980), 230–45.

<sup>&</sup>lt;sup>45</sup> Michael Hubenstorf: "Vertreibung und Verfolgung. Zur Geschichte der oesterreichischen Medizin im 20. Jahrhundert," Das Juedische Echo 50, 2 (2001): 277–88.

<sup>&</sup>lt;sup>46</sup> Wolfgang Stroesser, Deutsche Gesellschaft fuer Neuropathologie und Neuroanatomie e. V. 1950–1992. Eine Untersuchung zur Entwicklung der Gesellschaft und zur Foerderung des Faches Neuropathologie in Deutschland (Berlin: Deutsche Gesellschaft fuer Neuropathologie und Neuroanatomie e. V., 1993); Juergen Peiffer: "Die Vertreibung deutscher Neuropathologen 1933–1939," Nervenarzt 69, 1 (1998): 99–109; Wolfgang Burgmair and Matthias M. Weber, "'das Geld ist gut angelegt, und Du brauchst keine Reue haben'. James Loeb, ein deutsch-amerikanischer Wissenschaftsmaezen zwischen Kaiserreich und Weimarer Republik," Historische Zeitschrift 277, 3 (2003): 343–78; Volker Roelcke: "Wissenschaften zwischen Innovation und Entgrenzung: Biomedizinische Forschung an den Kaiser-Wilhelm-Instituten, 1911–1945," in Sozialdarwinismus, Genetik und Euthanasie. Menschenbilder in der Psychiatrie, eds. Martin Bruene and Theo R. Payk (Stuttgart: Wissenschaftliche Verlagsgesellschaft, 2004): 92–109.

<sup>&</sup>lt;sup>47</sup> Howard J. Faulkner and Karl A. Menninger, *The Selected Correspondence of Karl A. Menninger*, 1919–1945 (New Haven, CT: Yale University Press, 1989); Anne Harrington, *Reenchanted Science, Holism in German Culture from Wilhelm II to Hitler* (Princeton, NJ: Princeton University Press, 1996); Gerald N. Grob, "Mental Health Policy in Late Twentieth Century America," in *American Psychiatry after World War II* (1944–1994), eds. Roy W. Menninger and John Nemiah (Washington, DC: American Psychiatric Press, 2000), 232–40; David A. Hollinger, "Why Are Jews Preeminent in Science and Scholarship?" *Aleph. Historical Studies in Science and Judaism* 2, 1 (2000): 145–63; Cornelius Borck, *Hirnstroeme. Eine Kulturgeschichte der Elektroenzephalograhie* (Goettingen: Wallstein, 2005).

<sup>&</sup>lt;sup>48</sup> In fact, forced migration phenomena in psychology, psychiatry, and the cognitive sciences cannot be seen as independent from such larger trends. They rather exemplify specific cases of broader social and cultural contexts of modern scientific developments. See, for example, the perspectives given by Christopher Geertz, *The Interpretation of Culture* (New York: Basic Books, 1973); Mario Biagioli, *The Science Studies Reader* (London: Routledge, 1993).

<sup>&</sup>lt;sup>49</sup> Lothar Pickenhain, "Die Neurowissenschaft – ein interdisziplinaeres und integratives Wissensgebiet," *Schriftenreihe der Deutschen Gesellschaft fuer Geschichte der Nervenheilkunde* 8, 1 (2002): 241–6; Ulrich Troehler, "Theodor Kocher und die neurotopographische Diagnostik: Angewandte Forschung mit grundlegendem Ergebnis um 1900," *Gesnerus* 40, 2 (1983): 203–14; Stanley Finger, *Origins of Neuroscience* (New York: Oxford University Press, 1994); David Millett, "Hans Berger: From Psychic Energy to the EEG," *Perspectives in Biology and Medicine* 44, 4 (2001): 522–42.

<sup>&</sup>lt;sup>50</sup> Francis O. Schmitt, *The Never-Ceasing Search* (Philadelphia: The American Philosophical Society, 1990).

<sup>&</sup>lt;sup>51</sup> Stephen Pow and Frank W. Stahnisch, "Eugenics Ideals, Racial Hygiene, and the Emigration Process of German-American Neurogeneticist Franz Josef Kallmann (1897–1965)," *Journal of the History of the Neurosciences* 25, 3 (2016): 253–74; Valentin Braitenberg, "Hirnforschung zwischen Lokalisationslehre und Systemanalyse," *Attempto* 35, 6 (1970): 43–

were particularly altered through the process of forced migration. The objective of our special issue is hence a thorough analysis of how émigré psychologists, psychiatrists, and cognitive scientists shaped research approaches after their arrival in Canada and the United States.<sup>52</sup>

The specific research questions addressed in this special issue of *History of Intellectual Culture* align with larger discourses in history and philosophy of science and in modern science and technology studies.<sup>53</sup> Since knowledge in the life sciences is increasingly integrated into today's discourses of politics, economics, and culture, its context becomes more and more relevant.<sup>54</sup> Psychiatry research and the neurological sciences became involved in what French historian and philosopher Michel Foucault (1926–1984) termed modern "biopolitical discourses," most notably in discussions since the 1930s around eugenics and euthanasia programs.<sup>55</sup> Related discourses impinge on, for example, eugenics and biological psychiatry in North America.<sup>56</sup> Yet, still lacking is a detailed historical account of the developments in early and midtwentieth-century psychiatry research and biomedicine that highlight the interdisciplinary dynamics in psychiatric clinics, psychophysiological laboratories, and mental health institutions.

By reflecting on the intriguing case studies in this special issue, it becomes easier to grasp the career and life developments of émigré psychologists, psychiatrists, and cognitive scientists over time; their interaction with the receiving contexts in the countries they first migrated to (e.g., England and Turkey) as well as those they ultimately settled in (e.g., Canada and the United States); and the interaction with networks from other disciplines (between psychology and cognitive science, or between medicine and psychoanalysis in trauma therapy). The breadth of the focal perspectives chosen here, as well as the length of the study period, allows going beyond several limitations in previous approaches or the current state of the art in this field and offers insightful perspectives on the émigrés' participation in dynamic developments that have been much needed and that are emphasized here.

Pursuing such a topic necessitates scrutiny of biomedical working groups and collective biographies on "a meso-level" (i.e., between academic societies and individual scientists), as French sociologist Bruno Latour contrived. Methodological approaches such as Latour's "actor-network-theory" or Thomas Kuhn's

<sup>8;</sup> Ohad Parnes, "'Trouble from Within': Allergy, Autoimmunity, and Pathology in the First Half of the Twentieth Century," Studies in History and Philosophy of Biological and Biomedical Sciences 34, 4 (2003): 435–54.

<sup>&</sup>lt;sup>52</sup> Bernd Holdorff, "Emigrated Neuroscientists from Berlin to North America," *Journal of the History of the Neurosciences* 25, 3 (2016): 227–52; Koch and Koch, *Deemed Suspect*, 230–54.

<sup>&</sup>lt;sup>53</sup> Stephen Shapin, "Science and the Public," in *Companion to the History of Modern Science*, ed. Richard C. Olby (London: Routledge, 1990): 990–1007; Julie Thompson Klein, *Interdisciplinarity: History, Theory, and Practice* (Detroit, MI: Wayne State University Press, 1990), 17–76; Volker Roelcke, "Programm und Praxis der psychiatrischen Genetik an der Deutschen Forschungsanstalt fuer Psychiatrie unter Ernst Ruedin: Zum Verhaeltnis von Wissenschaft, Politik und Rasse-Begriff vor und nach 1933," *Medizinhistorisches Journal* 37, 1 (2002): 21–55.

<sup>&</sup>lt;sup>54</sup> Soraya De Chadarevian, *Molecularizing Biology and Medicine 1910s to 1970s* (Amsterdam: Harwood Academic Publishers, 1998).

<sup>55</sup> Benno Mueller-Hill, Toedliche Wissenschaft. Die Aussonderung von Juden, Zigeunern und Geisteskranken, 1933–45 (Reinbek: Rowolth, 1984); Michael Kater, Doctors under Hitler (Chapel Hill: The University of North Carolina Press, 1989); Goetz Aly, ed., Aktion T4 1939–1945. Die "Euthanasie-Zentrale" in der Tiergartenstrasse 4, 2nd augm. ed., (Berlin: Edition Heinrich, 1989); Hans-Peter Kroener, "Von der Rassenhygiene zur Humangenetik: NS-Wissenschaftler diskutieren ihre Rolle, ihr Fach und ihr Selbstverstaendnis," in Kontinuitaet und Neuanfang in der Hochschulmedizin nach 1945, eds. Gerhard Aumueller, Hans Lauer, and Heinrich Remschmidt (Marburg: Schueren, 1997): 37–53; Axel Karenberg, "Neurosciences and the Third Reich" (Special Issue), Journal for the History of the Neurosciences 15, 3 (2006). <sup>56</sup> Christopher M. Hincks, "Canadian Psychiatry," Canadian Medical Association Journal 57, 1 (2004): 161–5; Jack D. Pressman, Last Resort: Psychosurgery and the Limits of Medicine (Oxford: Oxford University Press, 1998); Ian R. Dowbiggin, Keeping America Sane: Psychiatry and Eugenics in North America and Canada, 1880–1940 (New York: Cornell University Press, 2003); William E. Pickwren, Psychology and The National Institute of Mental Health: Historical Analysis of Science, Practice, and Policy (Washington, DC: American Psychiatric Association, 2004).

"disciplinary matrices" can provide useful historiographical angles regarding the interplay between science and society so prominently implied by psychiatry research and cognitive science.<sup>57</sup>

One of our hypotheses is that conceptual changes in modern mind and brain sciences and related fields were triggered by increasing scientific acceptance of interdisciplinary research models in North America. Investigation of the contributing fields is highly desirable, for that very reason, because "external" disciplinary threats to individual research disciplines such as psychiatry, neurology, and pathology resulted in many attempts at fostering collaborative transactions. This trend is reflected in, for example, the appearance of dynamic metaphors and cultural and political notions, such as "energy," "power," or "motion," seen by many scholars as paving the way for a dynamic understanding of the central nervous system at the beginning of the twentieth century.<sup>58</sup> The general development of psychiatry research and the cognitive sciences compels us to take a closer look at the role of German émigré scientists and academics between the 1930s and 1970s as well as the immediate post-war period.<sup>59</sup> This is strikingly reflected by the steady growth of the Neuroscience Research Program, from two dozen participants at its meetings in 1963 to the foundation of the international Society for Neuroscience (SfN) with more than 500 attendees in the 1970s. Today these numbers have grown vastly; an annual meeting of the SfN brings together 30,000 neuroscientists and psychiatrists. Two-thirds of the founding presidents of the Society for Neuroscience were participants in the preceding Neuroscience Research Program, and nearly all neuroscientists winning Nobel Prizes between 1963 and 2000 were SfN members. 60 Similar developments can also be found in the Cognitive Science Society, the American Society for Microbiology, the American Society for Human Genetics, and the Max Planck Society for the Advancement of Science.

The research presented in this special issue of *History of Intellectual Culture* further scrutinizes the social contexts of German-trained psychiatry and psychology refugees with the scientific and clinical concepts they used and their laboratory practices, along with interchanges of tacit knowledge, laboratory protocols, and organizational patterns, to assess their impact on Canadian and American academia. Historical experiences, background knowledge of émigré psychiatry researchers and cognitive scientists, and the "cultural embeddedness" of experimental systems are examined, paying tribute to Karin Knorr-Cetina's notion of "intensification of society" in the research clinic and laboratory. 61 Viewing the development of modern research in psychiatry and cognitive psychology as influenced, if not driven, 62 by sociocultural changes leads to a historiographical approach that takes local research determinants into account and pays attention to differing organizational cultures. 63 Our special issue also explores historical archival evidence

<sup>&</sup>lt;sup>57</sup> Bruno Latour, "One More Turn after the Sociological Turn . . .," in *The Science Studies Reader*, ed. Mario Biagioli (New York: Routledge, 1999): 276–89; Kuhn, *The Structure of Scientific Revolutions*, 10–12.

<sup>&</sup>lt;sup>58</sup> Olaf Breidbach, *Die Materialisierung des Ichs*: *Zur Geschichte der Hirnforschung im 19. und 20. Jahrhundert* (Frankfurt am Main: Suhrkamp, 1997); Michael Hagner: "Gehirnfuehrung: Zur Anatomie der geistigen Funktionen, 1870–1930," in *Ecce Cortex. Beitraege zur Geschichte des modernen Gehirns*, ed. Michael Hagner (Goettingen: Wallstein, 1999): 144–76.

<sup>&</sup>lt;sup>59</sup> Judith P. Swazey and Frederic G. Worden, "On the Nature of Research in Neuroscience," in *The Neurosciences: Paths of Discovery*, eds. Frederic G. Worden, Judith P. Swazey, and Gerald Adelman (Cambridge, MA: MIT Press, 1975); Donald B. Tower, "The Neurosciences-Basic and Clinical," in *NIH: An Account of Research in its laboratories and Clinics*, eds. De Witt Stetten, Jr. and William T. Carrigan (Orlando, FL: Academic Press, 1984): 48–70.

<sup>&</sup>lt;sup>60</sup> George Adelman, "The Neurosciences Research Program at MIT and the Beginning of the Modern Field of Neuroscience," *Journal of the History of the Neurosciences* 19, 1 (2010): 15–23.

<sup>&</sup>lt;sup>61</sup> Karin Knorr-Cetina, "Das naturwissenschaftliche Labor als Ort der 'Verdichtung von Gesellschaft'," Zeitschrift fuer Soziologie 17, 1 (1982): 85–101.

 <sup>62</sup> Henning Schmidgen, Peter Geimer, and Sven Dierig, eds., Kultur im Experiment (Berlin: Kulturverlag Kadmos, 2004).
 63 For example, see Matthias M. Weber, "Geschichte der Kaiser-Wilhelm-Gesellschaft im Nationalsozialismus. Aus den Zwischenberichten der Praesidentenkommission der Max-Planck-Gesellschaft," Nervenarzt 73, 1 (2202): 1107–11;
 Gerald Kreft, Deutsch-juedische Geschichte der Hirnforschung. Ludwig Edingers Neurologisches Institut in Frankfurt am Main (Frankfurt am Main: Mabuse-Press, 2005).

in establishing which discursive networks acted as new cultural backgrounds for émigré psychiatrists, neuroscientists, and academics in their receiving host countries.<sup>64</sup> Attention is focused on the momentum of organizational rearrangements out of which *new epistemic cultures* emerged. It ponders important advances of seeing science in context,<sup>65</sup> while asking which notions of benefit, necessity, and interdisciplinarity were used by researchers and academics of the period. The current special issue can itself be understood as an example of a particular form of interdisciplinarity,<sup>66</sup> blending ethnographic and sociological approaches with methodologies of historical investigation.<sup>67</sup> In addition, through the specific perspectives and lenses of its contributions, it develops a central field in twentieth-century history of science and history of intellectual culture.<sup>68</sup>

# The Individual Article Contributions to This Special Issue

"Émigré Psychiatrists, Psychologists, and Cognitive Scientists in North America since the Second World War" provides a cluster of intriguing case studies of émigré psychiatrists and psychologists and their work. It is introduced by Jim Ellis, the Director of the Calgary Institute for the Humanities at the University of Calgary's Faculty of Arts, which supported the production of this special issue of *History of Intellectual Culture* through a grant to the interdisciplinary working group German-speaking Émigré Neuroscientists and Biomedical Researchers, 1933–1963. Like other humanities institutes, the Calgary Institute for the Humanities seeks to foster the most innovative interdisciplinary conversations by bringing together scholars from different disciplines to address common humanities issues from a variety of scholarly perspectives, as is represented in the current publication.

Case examples from clinical psychology in Canada are discussed in the first article, which takes Dr. Hugh Lytton's (1921–2002; born Heinz Lichtenstein) memoir as a starting point. His writing captured the feeling of many German Jews during the Nazi period in the 1930s. After realizing that young Jews had no future in Germany, Lytton immigrated to Britain in 1936 and embarked on a journey that would notably affect his personal life and career. Initially, Lytton thought that he would become a rabbi, but his experiences in Britain put him on a path toward academia and research work. Like other refugees, who had to leave their families, homes, and livelihoods behind, Lytton found living in the host country challenging, but he persevered. He began to study languages, and this proved useful when he joined the British military and later served as an interpreter at the Allies' Nuremberg Trials in 1947. Throughout this time, he became interested in social psychology, which led to a research fellowship at the Tavistock Clinic in London to train in clinical psychology. Dr. Lytton obtained a PhD in 1966 from the University of London, and went on to publish his internationally renowned work, *Parent—Child Interaction: The Socialization Process Observed in Twin and Singleton Families* (1980). Erna Kurbegović uses Lytton's memoir, personal documents, and publications to trace Lytton's journey in three countries — Germany, Britain, and lastly Canada — where in 1969 he eventually settled and obtained a faculty position in the University of Calgary's

<sup>&</sup>lt;sup>64</sup> Cf. Thomas Hoffmann and Frank W. Stahnisch, eds., Der Aufbau des Organismus. Einfuehrung in die Biologie unter besonderer Beruecksichtigung der Erfahrungen am kranken Menschen (Munich: Wilhelm Fink, 2014).

<sup>&</sup>lt;sup>65</sup> Bruno Latour, Science in Action: How to Follow Scientists and Engineers through Society (Cambridge, MA: Harvard University Press, 1987); Hans-Joerg Rheinberger, Experimentalsysteme und epistemische Dinge. Eine Geschichte der Proteinsynthese im Reagenzglas (Goettingen: Wallstein, 2001); Andrew Pickering, ed., Science as Practice and Culture (Chicago: Chicago University Press, 1994).

<sup>&</sup>lt;sup>66</sup> Wolfgang Lepenies, "Towards an Interdisciplinary History of Science," *International Journal of Sociology* 8, 1–2 (1978): 45–69.

<sup>&</sup>lt;sup>67</sup> Cf. Geertz, The Interpretation of Culture; Biagioli, The Science Studies Reader.

<sup>&</sup>lt;sup>68</sup> Frederic G. Worden, Francis O. Schmitt, Judith P. Swazey, and George Adelman, *The Neurosciences: Paths of Discovery* (Cambridge, MA: MIT Press, 1975).

Department of Educational Psychology. Lytton's story is an important case study for the history of forced migration during the Nazi period, and it provides useful insights into how life experiences can affect an individual's path in the academic world. It provides a fine example of scientific change following an unexpected shift of discipline and the transfer of experiences in the British educational system to a Canadian context, while supporting other examples known in the scholarship and thus enriching the forced migration picture.

Career changes befell many émigré researchers trained in neuropathology before the Second World War. This particularly characterizes a research area that the second article, by Daniel Burston, takes on, using the biographical case of Karl Stern (1906-1975). Stern was a German-Jewish psychiatrist and neurologist who trained at the Kaiser Wilhelm Society's German Research Institute of Psychiatry, and at the universities in Frankfurt am Main and Berlin. He fled Germany in 1937 - first to London, then to Canada, where he taught at McGill University and the University of Ottawa - becoming chief of psychiatry at several major clinics in Ottawa and Montreal from the early 1950s to the late 1960s. In 1951, he published The Pillar of Fire, a memoir that chronicled his childhood, adolescence, and early adulthood, describing his medical and psychiatric training in the midst of the stampeding Nazification of Germany. The Pillar of Fire explored the challenges and vicissitudes of forced immigration and acclimating to new cultural surroundings, as did Stern's novel, Through Dooms of Love, later published in 1960. Stern's autobiographical reflections on his experience of uprootedness and losing his home country are interwoven with his narrative of conversion from Judaism to Roman Catholicism, along with a consequent alienation from the communities that still embraced his ancestral faith. Other sources that attest to Stern's lingering sense of estrangement in the midst of his flourishing career in Canada are his letters to Dorothy Day (1897– 1980), the published recollections of his nephew Walter von Baeyer (1904-1987) - himself an eminent neurologist and psychiatrist, who had trained in the Kaiser Wilhelm Society, both at the German Research Institute for Psychiatry and at the Breslau Neurological Institute - who visited the Sterns' home in Montreal during the 1950s.

The third article is by Frank W. Stahnisch and Christopher Kemp, looking at the involvement of émigré psychiatrists in the indemnification trials of previous Nazi refugees and Holocaust survivors. The concentration here is on refugee neurologist and psychiatrist William G. Niederland (1904–1993), an East Prussian psychiatrist of Jewish descent. He immigrated to North America in 1940 by a highly remarkable route, which took him all around the globe — from Europe to China, and from there to the United States via the Pacific isles. Yet of course, his adventurous flight from the Nazi regime — although it had much to do with the direction of his professional career and his psychiatric specialization — is not what distinguishes his international personal and professional career. In Dr. Niederland's remarkable working biography is seen his focus on some "inter-national" forms of suffering. His interpretation of the psychiatric contours of empathy was related to an increasingly global world while, conversely, his understanding of the conditions he described, scrutinized, and treated originated from intensive medical counselling. The article underscores the role of personal experience of émigré physicians and psychiatrists in the reconceptualization of those clinical symptoms, which Niederland saw in his medical practice. His notions of trauma and empathy emerged from the very living conditions of European refugees and Holocaust survivors themselves.

The fourth article of this special issue switches thematic gears by examining a group of German-trained cognitive scientists. Vincent von Hoeckendorf explores the broader interdisciplinary field that gave rise to the new research tradition, and he draws on mathematics, neurology, cybernetics, and psychology approaches in his contribution. This interdisciplinary field was forged upon the notion that psychology and neuroscience had similar goals and objects of study, and therefore they should combine their research efforts. Moreover, the new cognitive science model was able to bridge several gaps between psychology and neuroscience. Two questions, however, remained: Why did the 1940s and 1950s in particular see such

an emerging interest in interdisciplinary work? How did the German-speaking émigrés in the United States and Canada contribute to that development? As the author intriguingly shows, the idea of integrating psychology and neurophysiology had a long history dating back to the mid-nineteenth century with the advent of the neuron doctrine. Since that time, neural network theories were contemplated, partially formulated, and later dropped again. So, there were long interruptions in this particular line of investigation for a variety of social and epistemic reasons. This article explores also the history of the field and explains the role of émigré cognitive scientists in that development. It raises important questions about how today's theories have come to differ from the historical precursors, and how recent evidence on brain physiology and neurotechnologies allows for better understanding the advantages and disadvantages in the integration of psychology and neuroscience.

Great Britain as an intermediary country for onward migration and the differences in the research backgrounds between German-speaking and English-trained psychiatrists are the topic of the fifth article. Aleksandra Loewenau addresses the case of German and Austrian émigré psychiatrists and neurologists in Great Britain following 1933, after the Nazis expelled them from their positions for racial and political reasons. When placing these occurrences in a wider historiographical perspective, the author's in-depth analysis delves into the living and working contexts of the refugee neuroscientists in the British Isles. She thereby analyses the very issues that influenced the international forced migration of physicians and psychiatrists during the 1930s and 1940s. Only a fraction of refugee neuroscientists, however, were admitted to Great Britain. Those lucky ones were assisted by an aggregate of charitable, communal, and academic organizations. From archival documentation, it emerges that the British government and medical circles were rather apathetic, if not outright hostile, toward German-speaking Jewish refugee psychiatrists who wished to escape Nazi Germany. A special consideration is given to the aid programs that had already begun their activities the year after the Nazis had seized power, with the foundation of the British Assistance Council by the economist and political philosopher Sir William Henry Beveridge (1879–1963) in 1933.

Since the countries of refuge were not limited to North America, yet were significantly facilitated through third countries such as Turkey and Great Britain, the last article in this issue focuses on Germanspeaking refugees who found refuge in Mustafa Kemal Atatürk's (1881–1938) Turkish Republic. The interesting case of émigrés in Turkey remains largely under-researched, and much historical work remains to be pursued. Guel A. Russell takes on this work by focusing on the Turkish Republic's offer of university positions in 1933 to thirty German academics who had been dismissed with the coming to power of the National Socialist government. That number went up to fifty-six with inclusion of the technical assistants. By 1948 the estimated total had increased to almost two hundred. Given renewable five-year contracts with salaries substantially higher than their Turkish counterparts, foreign émigrés were to implement the program of the Westernization of higher education. The ten-year-old Turkish Republic's social reforms had encompassed equal rights for women and removed gender bias in hiring. Such a high concentration of émigré academics in one institution provided a unique opportunity for studying a subject that has been neglected in scholarly literature. It provides insights into the issue of onward migration from Europe to North America by particularly exploring several case examples from psychology and psychiatry research.

Our special issue of *History of Intellectual Culture* ends with a historiographical commentary by Paul Stortz, which takes the entirety of this special issue into account and reflects on the new picture of the intellectual migration of the 1930s and 1940s in the wider context of intellectual history and the modern university system. In line with the existing scholarly literature, these new case studies show that psychiatric

<sup>&</sup>lt;sup>69</sup>As one of the few exceptions, see the German-language article by Regine Erichsen, "Vom Nationalsozialismus vertriebene Wissenschaftler auf dem Markt. Die Arbeitsvermittlung des Englischen Academic Assistance Council (SPSL) am Beispiel von Tuerkeiemigranten," *Berichte zur Wissenschaftsgeschichte* 19, 2 (2006): 219–34.

research and cognitive psychology existed at important contemporary crossroads, which the contributing authors identify as resulting from an important merger between new disciplinary movements and important external, social, and economic factors. These reshaped the field as it moved toward today's complex research landscape in the mind and brain sciences, 70 yet in concrete ways the émigré psychiatrists, psychologists, and cognitive scientists also contributed to these transformations and emphasized interdisciplinary trends. The permeable boundaries and enriching motives of these historical phenomena make them very well suited to exploration in this special issue — with all the major repercussions in North America that we still witness in the academy and research world today.

Altogether, this special issue of *History of Intellectual Culture* clearly shows that the long-term migration of scientists and physicians affected both the migrants themselves and their receiving environments. On the one hand, the arrival of the émigré scientists and scholars brought about a confrontation between two different traditions and systems. On the other hand, migrating scientists and physicians were themselves confronted with foreign institutional, political, economic, and cultural frameworks when trying to establish their own ways of knowledge generation, systems of logic, and cultural mentalities.

The twentieth century has been called the century of war and forced migration. It witnessed two devastating world wars, leading to a massive exodus that also included many psychiatrists and neuroscientists from their home countries. Fascism in Italy and Spain beginning in the 1920s and Nazism in Germany and Austria in the 1930s and 1940s forced a very large contingent of researchers and physicians with prior education in psychiatry, psychology, neurology, and related fields to leave their familiar scientific and academic institutions and seek refuge and new academic homes elsewhere in the free and democratic world.

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<sup>&</sup>lt;sup>70</sup> See also recently in Delia Gavrus and Stephen T. Casper, eds., *The History of the Brain and Mind Sciences: Technique, Technology, Therapy* (Rochester, NY: University of Rochester Press, 2017).