

*They Also Served – Jewish and Oppositional Émigré Neurologists
and Psychiatrists in the Armed Forces of North America during
and after the Second World War*

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“For me, the most beautiful thing is to be in contact with a few fine Jews—a few millennia of a civilized past do mean something after all.”

— Albert Einstein, in his exile in Princeton, NJ
(1939)¹

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¹Qtd. after Walter Isaacson, *Einstein: His Life and Universe* (Toronto: Simon Schuster, 2007), p. 407.

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Introduction

Over the past fifteen years, the role of Jewish service members in the Canadian and US Armed Forces has been more systematically studied,² and the role that émigré German-trained scientists played in military-related research programs – particularly the Manhattan Project – has been an important though relatively understudied topic within the historiography of forced migration and wartime science.³ Yet the group of émigré neurologists, psychiatrists, and pathologists with their valuable contributions to Allied military medicine still forms a *not-so-well-trodden* path in the historiography of military medicine. Approximately 85 percent were of Jewish origin, with 10 percent displaying socialist and communist political allegiances, and 5 percent leaving Nazi Germany for a variety of personal reasons.⁴ During the Second World War, up to 550,000 Jews had

Karl T. Neubuerger, while I also wish to include my gratitude to Dr. Stephen Pow, Dept. of History, for his meticulous adjustment of the English language in this article.

²Derek J. Penslar, *Jews and the Military: A History* (Princeton: Princeton University Press, 2013); Bruce Wolk, *Jewish Aviators in World War II: Personal Narratives of American Men and Women* (Jefferson, NC: McFarland Books, 2016).

³Jeff Hughes, *The Manhattan Project: Big Science and the Atom Bomb* (New York: Columbia University Press, 2002); Beverley Driver Eddy, *Ritchie Boy Secrets: How a Force of Immigrants and Refugees Helped Win World War II* (Guilford, CT: Stackpole Books, 2021).

⁴The notoriously difficult identification is however based on the problematic classification of the Nuremberg Laws and other decrees enacted in Nazi Germany between 1935 and 1938, as these expanded the group of people deemed non-Aryans. The realization of being “Jewish” befell many of the physicians and scientists – who either saw themselves as non-religious or as “cultural” Jews keeping the traditions of the Jewish holidays – because of social influences after the Nazi administrators enacted the German race laws between 1933 and 1935. Herbert Strauss and Werner Roeder (eds.), *International Biographical Dictionary of Central European Émigrés 1933–1945. The Arts, Sciences, and Literature*, vol. 2 (Munich: K.G. Saur, 1983), xlv–lvii; Editorial, “The Plight of Refugees,” in: *The Times* (26 June 1936), p. 19;

<https://www.proquest.com/docview/123914313?accountid=9838&parentSessionId>

=om9pfcJyRLaLRiCoKQuofeHsP4V91CgBXZi9sqAQqXc%3D&pq-origsite=primo&sourcetype=Historical%20

Newspapers. For a more in-depth analysis and critique of the classification of émigré scientists and their “Jewish origins,” see the Epilogue of *Great Minds in Despair: The Forced Migration of German-Speaking Neuroscientists to North America, 1933 to 1989* (Montreal: McGill-Queens University Press, 2025). The book offers an extensive distinction between self-identification, religious practice, cultural affiliation, and types of forced classification by Nazi Germany. For our narrative purposes here, the term *Jewish* is applied externally, and thus descriptively, while keeping some of the ambivalence of the distinction and the complex ways that cultural and religious identity was imposed, experienced, and self-claimed – especially among émigrés who identified as non-religious or as *cultural* Jews, as will become visible from the three detailed case examples considered in the second part of this article.

generally enlisted in the US Armed Forces, and 17,000 served in the Canadian Armed Forces.⁵ Among these were refugee academics and physicians who had fled Nazism and Fascism in Europe during the 1930s and 1940s.⁶ As soon as the Second World War broke out, they declared their willingness to serve in the Allied Forces and, interestingly, they often possessed prior military training in the German Imperial Army or the Austro-Hungarian Imperial and Royal Army during the First World War.⁷ Their work in areas of military pathology, neurosurgery, psychological testing, and psychotherapy domains, as well as in public health programs, will be examined in this article.⁸ The important contributions of Jewish and oppositional émigré physicians and scientists, along with the challenges they had to endure during the process of their forced migration, were recently highlighted at The Military Museums in Calgary. The past exhibit “*She also Served: Jewish Women in the Canadian Armed Forces*,” was curated by librarian emerita Sandra Lipton and artist Jennifer Eiserman with the Founder’s Gallery, and it remains present online via the University of Calgary’s Library and Archival Collections.⁹

⁵ Jessica Cooperman, “Jews in the US Armed Forces,” in: Jon Butler (ed.), *Oxford Research Encyclopedias, American History* (Oxford: Oxford University Press, 23 March, 2022); <https://oxfordre.com/americanhistory/view/10.1093/acrefore/9780199329175.001.0001/acrefore-9780199329175-e-950>; Sandra Lipton, “She Also Served: Bringing to Light the Contributions of the Canadian Jewish Servicewomen of the Second World War,” in: *Canadian Jewish Studies* 25, 2 (2017), pp. 93-116; esp. 98; <https://cjs.journals.yorku.ca/index.php/cjs/article/view/40016/36221>.

⁶ Robert Koehler, “The Ritchie Boys: Docu – Germany-Canada,” in: *Variety* (3-5 January 2005), p. 23; <https://web-p-ebshost-com.ezproxy.lib.ucalgary.ca/ehost/pdfviewer/pdfviewer?vid=0&sid=62b19a5a-b285-4099-a42d-c14f127bfd05%40redis>.

⁷ Uwe Lohalm, “‘The Jews in the Army’ – On the Origins and Pervasiveness of a Prejudice,” in: Insa Kummer (ed.), *Key Documents of German-Jewish History – A Digital Source Edition* (Hamburg: Institute for the History of German Jewry, 2016), pp. 1-9; <https://dx.doi.org/10.23691/jgo:article-120.en.v>; Werner T. Angress, “The German Army’s ‘Judenzaehlung’ of 1916. Genesis – Consequences – Significance,” in: *Leo Baeck Institute Yearbook* 23, no. 2 (1978), pp. 117-137; <https://doi.org/10.1093/leobaek/23.1.117>.

⁸ Donald H. Avery, *The Science of War – Canadian Scientists and Allied Military Technology During the Second World War* (Toronto: University of Toronto Press, 1998), pp. 182-183.

⁹ Sandra Lipton and Jennifer Eiserman (curators), “*She also Served: Jewish Women in the Canadian Armed Forces*” (Calgary: The Military Museums, 2021); <https://live-ucalgary.ucalgary.ca/she-also-serves>. See also the works on the marginalized contributions of Jewish and Gentile women within the Allied war effort by Olga Gruhitz-Hoyt, *They also Served: American Women in World War II* (Syracuse, NJ: Carol Pub. Group, 1995) and Gavin Lettie, *American Women in World War I: They also Served* (Niwot, CO: University of Colorado Press, 1997).

In my recent book, entitled “*Great Minds in Despair: The Forced Migration of German-Speaking Neuroscientists to North America, 1933 to 1989*,”¹⁰ I have explored the wider historical research topic of the impact of the exodus of millions of people from Central Europe on the medical and research landscape in North America. Counted among them were hundreds of neuroscientists and biological psychiatrists from Nazi Germany and its surrounding countries who were forced to emigrate in the 1930s and 1940s.¹¹ Many of them settled in North America, where they profoundly changed the development of the biomedical sciences in both civilian and defence-related domains. Placed in unfamiliar clinical and research settings in Canada and the United States, they helped reform the fields of neuroscience, psychiatry, clinical psychology, and the cognitive sciences, even as they rebuilt their own lives in exile.¹² The book explores how generational factors, gender, international networking, refugee organizations, and national funding agencies shaped their experiences and affected postwar remigration.

Historians can also look at the related topic analyzed by Ellin Bessner in her book, “*Double Threat: Canadian Jews, the Military, and World War II*,” to explore the general development in Canada regarding Jewish servicemen’s and servicewomen’s contributions during the Second World War. Bessner’s book offered an important vantage point for my own research, while her scope was much broader as she did not primarily focus on the history of medicine and science.¹³ Yet the general perspectives that she worked out have been pertinent to the historical examinations in this article, too, for example, when she stated:

More than a million Canadians served in World War II. Among them, Canada’s Jewish soldiers faced something unique: they were not only standing beside Britain against the dark forces of Nazism and dictatorship,

¹⁰ Stahnisch, *Great Minds in Despair*, pp.3–26.

¹¹ Frank W. Stahnisch and Guel Russell, “New Perspectives on Forced-Migration in Neuroscience during the Twentieth Century – Introduction,” in: *Journal of the History of the Neurosciences* 25, 2 (2016); pp. 219-226; <https://www.tandfonline.com/doi/epdf/10.1080/0964704X.2015.1121694?needAccess=true>.

¹² Frank W. Stahnisch, “Introduction to Émigré Psychiatrists, Psychologists, and Cognitive Scientists in North America since the Second World War’,” in: *History of Intellectual Culture* 12, 1 (2017-19), pp. 1-14; <https://journalhosting.ualgary.ca/index.php/hic/article/view/69266>.

¹³ Ellin Bessner, *Double Threat: Canadian Jews, the Military, and World War II* (Toronto: New Jewish Press, 2018), pp. 217-223.

but also fighting to save their own people from destruction. They did so while encountering widespread antisemitism at home, in the barracks, and even on the battlefield.¹⁴

Bessner explored the history of Canadian Jews who served in the Allied war effort between 1939 and 1945. The use of the notion of a “double threat” in her title was based on a letter that Prime Minister William Lyon Mackenzie King (1875-1950) sent to the Canadian Jewish Congress (CJC) in March 1947, acknowledging the contribution of Jewish troops to the Allied Victory.¹⁵ The total estimated number of Jews serving in the war was 16,883, of which 10,235 served in the Army, 5,889 in the Royal Canadian Air Force, 596 in the Navy, and 163 in other allied armed forces.¹⁶ The *double threat* of having to face Nazism and Fascism in Europe, as well as needing to fight for Jewish Survival in the context of the Holocaust, was something also faced by the not-inconsiderable number of physicians and scientists identified in *Great Minds in Despair* – the group of about forty refugees who served in the Allied war effort after their arrival in North America was thus really high. Out of the overall number of four hundred émigré neurologists and psychiatrists, this translates to at least 10 percent who got involved in the Allied war effort as service personnel or as researchers, advisors, and workers in administrative capacities.¹⁷

Central to the opening of her book has been Bessner’s concerns with how the Canadian-Jewish contribution to the Second World War had been commemorated in the past. As she states in her introduction, when she visited the Bény-sur-Mer Canadian War

¹⁴ Bessner, *Double Threat*, p. xv.

¹⁵ David Rome (ed.), *Canadian Jews in World War II, Part I: Decorations* (Montreal: Canadian Jewish Congress, 1947), foreword.

¹⁶ Bessner, *Double Threat*, p. 24.

¹⁷ Avery, *The Science of War*, p. 207. This overall amount of 10 percent, however, only includes those émigré neurologists and psychiatrists who joined the Allied Forces as active servicemen and servicewomen or contributed to the Allied war effort as biomedical scientists, including in research projects funded by the Canadian Defence Research Board. Yet, the given percentage does not contain those clinical neuropsychiatrists who, during and after the Second World War, worked for the Veterans’ Administration, particularly in the United States. While there was some overlap in personnel, this group was largely active in the postwar period. For more information on the topic, please consult: Elspeth Cameron Ritchie and Maria D. Lorente (eds.), *Veteran Psychiatry in the US – Optimizing Clinical Outcomes* (Cham, Switzerland: Springer, 2029), pp. 17-28.

Cemetery in Revers, France, in July 2011,¹⁸ not only was she impressed by the number of tombstones displaying the Star of David under Jewish surnames, but Bessner also stumbled upon the epitaph on the tombstone of:

"B-11603 Bombardier
G.[eorge] Meltz
Royal Canadian Artillery
8th July 1944, Age 25, [reading:]
'He died, so that Jews shall suffer no more!'"¹⁹

Bombardier Meltz's motivation to fight for Jewish Survival could be found among many of the émigré neurologists and psychiatrists, alongside their ongoing need to rebuild their careers in the early field of neuroscience, and in displaced scholars' self-perceptions of their cultural and religious identity in exile.²⁰ In *Double Threat*, Bessner emphasized that it was *their war* – the war of Jewish communities in North America and of European refugees who remained deeply concerned about the fate of their families and friends overseas under Nazi and Fascist oppression.²¹ When they arrived in the

¹⁸ My own similar experience occurred six years later when paying my respects to the fallen liberators of Europe and visiting the rows of nearly 700 Canadian war graves at the Reichswald Forest War Cemetery on Grunewaldstrasse outside Kleve (GPS location: N 51 44 21 E 06 04 48) on the Dutch border. This memorable experience arose while I was pursuing archival research in Nijmegen (The Netherlands), while I had just gotten off a public transport bus, when trying to reach my nightly accommodations in Kleve (on the German side).

¹⁹ The lettering within the Stars of David read: ת.נ.צ.ב.ה. (the acronym composed of the Hebrew letters Tav + Nun + Tsadeh + Bet + He), representing the verse תהא נפשוֹ/ה בצרורֹה החיים (*t'hay nafsho/ah tzrurah b'tzror hachaim*) from the first book of Samuel, 25:29 in the Hebrew Bible ("May his soul be bound up in the bond of eternal life."); the grave marker (2010) at the Beny-sur-Mer Canadian War Cemetery remains situated outside Revers in Normandy, France; <https://www.veterans.gc.ca/en/remembrance/memorials/canadian-virtual-war-memorial/detail/2059759>.

²⁰ Sybille Quack (ed.), *Between Sorrow and Strength: Women Refugees of the Nazi Period* (Cambridge, UK: Cambridge University Press, 1995), pp. 1-10.

²¹ Bessner, *Double Threat*, p. 16. As Private Guy Stern (1922–2023) – born to Jewish parents in Northern Germany – emphasized, émigrés were drawn to engage in the war theatre as they sought to be "working with real war criminals" that had taken their home country from them, in Driver Eddy, *Ritchie Boy Secrets*, p. 291. Stern became a *Richie Boy* at Camp Richie, MD, where he completed his training as an interviewer within the US Army. Following his return to Europe, he prepared reports based on interviews with prisoners of war for his commanders. After his demobilization and return to America, Dr. Stern completed his graduate studies and became a Professor of Literature at the University of Maryland. In 2022, he received an honorary doctoral degree from the University of Hildesheim in his hometown.

safety and freedom of their refuge in North America, their sorrows and concerns, however, remained. Thus, in the second part of this article, detailed case studies are provided that offer valuable insight into the experiences and contributions of émigré scientists.

The Second World War, while seeing the detrimental effects of vast military conflict and the human catastrophe of the Holocaust, also had a positive impact on émigré neurologists and psychiatrists, as it ushered in the resilience of Jewish and oppositional scientists and physicians and their impressive valour when serving alongside their comrades in the Allied war effort. Contributing to wartime research, public health activities, medical education, and health care initiatives gave émigré neuroscientists a place and the standing in the Allied forces, which they could later transfer into Canadian and American society and the medical and scientific community of the postwar period, as the case examples of this article will show.

Cultural and Scientific Background Developments in Nazi Germany

The 367 émigré neurologists and psychiatrists – who had been marginalized, persecuted, and expelled from their positions because of their Jewish religion or in opposition to the political regime in Germany, Austria, and subsequently neighbouring countries – arrived in North America from the 1930s onward. They represented a significant group also in relation to the numbers of their colleagues in their host countries; this was the case both with respect to their absolute number and regarding their proportion among the total of only four hundred neurologists in the United States at the time.²² My book and the present article add here the (forced) migration perspective to this narrative by exploring the status which the experiences of uprootedness, expulsion, traumatization, re-adaptation, identity formation, and group networks played.²³ A major political and juridical event upon which many historians have agreed as the decisive cause for the forced migration of German-speaking scientists and physicians was the inauguration of the *Law for the Restoration of a Professional Civil Service* (7 April 1933) after the NSDAP seized power. The living situation of Jewish scientists and physicians further

²²Michael J. Aminoff and Larry R. Faulkner (eds.)

, *The American Board of Psychiatry and Neurology: Looking Back and Moving Ahead* (Washington, DC: American Psychiatric Publishing, 2012), pp. 237-250.

²³ Stahnisch, *Great Minds in Despair*, pp. 3-26.

deteriorated with the Nazi Book Burnings outside major university campuses on 10 May 1933, and the inauguration of the Nuremberg Race Laws on 15 September 1935.²⁴ Various areas in neuropsychiatry became rejected as they were regarded as forms of “Jewish Science” that fell short of racial, eugenic, and medical National Socialist ideologies. On the one hand, many doctors had what the Nazis considered “Jewish family backgrounds.”²⁵ On the other hand, many physicians who held materialistic views were suspicious of the unclear boundaries between neurology, psychiatry, and psychoanalysis that were typical of the wider German-speaking *Nervenheilkunde* field.²⁶ Whether they wanted it or not, the ousted Jewish émigrés found themselves confronted with their own “Jewishness,” either through persecution by the Nazis or through their own self-identification in a secular world turning against them.

In the relevant forced migration scholarship, the “*Brain Gain Thesis*” – which I critique and offer nuance toward both in my book and in this article – is often taken as an unquestioned given in studies on the forced migration of academics following the Nazis’ rise to power.²⁷ Research literature on the receiving countries has primarily tended to take the intellectual, academic, and institutional dimensions of the forced migration wave into account, whereas the individual fate and adaptation problems of many émigré researchers remain still under-investigated. I thus look at the fate of a group of German and Austrian émigré-physicians and -researchers who can be classified as early brain researchers and who immigrated to the United States or Canada either transitionally or

²⁴ Shlomo Aviner, “Where They Have Burned Books, They Will End Up Burning People,” in: *Jewish Review of Books* 7, no. 2 (2017): pp. 1-5; <https://jewishreviewofbooks.com/articles/2788/burned-books-will-end-burning-people/>.

²⁵ Michael Gruettner and Sven Kinas, “Die Vertreibung von Wissenschaftlern aus den deutschen Universitäten 1933–1945,” in: *Vierteljahrshefte fuer Zeitgeschichte* 55, 1 (2007): pp. 123–86; esp. 144; <https://www.degruyterbrill.com/document/doi/10.1524/vfzg.2007.55.1.123/html?srsltid=AfmBOop2SJ1gqAeQLC87fpZ-2ex-aYxmAfdhLivnAFIG5XyaMt6lgJk3>.

²⁶ Frank W. Stahnisch, “German-Speaking Émigré Neuroscientists in North America after 1933: Critical Reflections on Emigration-Induced Scientific Change,” in: *Oesterreichische Zeitschrift fuer Geschichtswissenschaften* 21, 3 (2010): pp. 36–68; esp. 57–61; <https://journals.univie.ac.at/index.php/oezg/article/view/3850/3588>.

²⁷ Jean Medawar and David Pyke, *Hitler’s Gift: The True Story of the Scientists Expelled by the Nazi Regime* (New York City: Arcade Publishing, 2001), pp. 231-240; John Cornwell, *Hitler’s Scientists: Science, War, and the Devil’s Pact* (New York City: Viking, 2003), pp. 127-141.

for good. My work here is based on the previous perspectives developed by Mitchell Ash and Alfons Soellner in their edited collection on *Forced Migration and Scientific Change – Émigré German-Speaking Scientists and Scholars after 1933*.²⁸ According to these historians, the process of forced-migration often constituted an end or at least a drastic change to the career patterns of this group, and the interluding period of the Second World War and the unfettering prospects of military work were one important factor for scientific, professional, and, most importantly, biographical changes. This ranged from complete or temporary interruptions of their careers, e.g., in the dramatic case of neuroanatomist and cardiovascular researcher Rudolf Altschul (1901–1963) at the University of Saskatchewan who was interned in Britain as an *enemy alien* and experienced a torpedoing aboard the *SS Arandora Star*, before he was able to commence his new, subsequent career in Canada through his research work for the Aviation Physiology Committee of the Defence Research Board).²⁹ We also see changes of career directions as in the biographical case of neurologist Wilhelm G. Niederland (1904–1993), who coined the psychiatric notion of the “*survivor syndrome*” after the Holocaust, based on his psychiatric examination and advisory work for the post-war US Military Administration in West Germany and supporting the compensation claims against the Federal Republic of Germany.³⁰ Yet, the process of forced migration also translated into the creation of new fields abroad, for example, the emergence of the field of trans-cultural psychiatry in Canada through the contributions of neuropsychiatrist Eric D. Wittkower (1899–1983) at McGill University – a figure who represents one of the detailed case studies later in this article.

Once again, it is plausible to identify the adaptation and manifestation of German-style research programs in particular areas of the North American neurosciences after the Second World War. Many of the émigrés in the United States and Canada, however, had to await prolonged relicensing periods and were often excluded from regular positions as physicians and medical researchers during the war, as has already been pointed out in Don Avery’s book *The Science of War*; albeit, this publication did not specifically examine

²⁸ Mitchell Ash and Alfons Soellner (eds.), *Forced Migration and Scientific Change – Émigré German-Speaking Scientists and Scholars after 1933* (Oxford: Oxford University Press, 1996).

²⁹ Library and Archives Canada (LAC), Ottawa, ON (National Research Council Fonds), RG77, box: 31 vol. 279: file 61: National Research Council – Methodology.

³⁰ Wenda Focke, *Niederland: Psychiater der Verfolgten – Seine Zeit, sein Leben, sein Werk, ein Portraet* (Wuerzburg, Germany: Koenigshausen & Neumann, 1992), pp. 114-120.

psychiatric or neuroscientific work endeavours as part of the Allied war effort.³¹ The vast forced migration of German-speaking émigré scientists and scholars, who had to flee Nazism and Fascism in Europe since the 1930s, involved approximately 3,000 Jewish and oppositional scientists and 6,000 physicians and health care researchers globally.³² Among these were more than 600 psychiatry- and neurology-trained individuals – the most famous “posterchild” being psychoanalyst Sigmund Freud (1856–1939) from Vienna –³³ who were ousted from their positions in Nazi Germany and occupied countries.³⁴ Although this situation contrasts with the in-depth scholarship regarding the exodus of the psychoanalysts, it will not be explored further here due to its ample, earlier coverage in the literature. Yet the seminal books by American historians Elizabeth Lunbeck: *The Psychiatric Persuasion*; Joseph Schwartz: *Cassandra’s Daughter*; and Jonathan Engel: *American Therapy* should be mentioned as highlights within this important corpus of literature.³⁵ Broadly characterized, the goal of German-speaking émigré neurologists, biological psychiatrists, and neuropathologists was certainly not to change the traditions in the field of the brain sciences and mental healthcare in North America. After all, they had merely sought a safe haven from Nazism while trying to re-establish their careers and striving to make genuine contributions.³⁶

This re-establishment of their livelihoods was quite remarkable, given the hardships they had to endure before and during their arrivals in North America, as is

³¹ Avery, *The Science of War*, pp. 278-295.

³² Hans-Peter Kroener, “Die Emigration deutschsprachiger Mediziner im Nationalsozialismus,” in: *Berichte zur Wissenschaftsgeschichte* 12, 1 (1989): pp.1-44; <https://onlinelibrary.wiley.com/doi/10.1002/bewi.19890120411>.

³³ Anthony D. Kauders, “The Crisis of the Psyche and the Future of Germany: The Encounter with Freud in the Weimar Republic,” in: *Central European History* 46, 2 (2013): pp. 325–45; <https://www.cambridge.org/core/journals/central-european-history/article/abs/crisis-of-the-psyche-and-the-future-of-germany-the-encounter-with-freud-in-the-weimar-republic/098083FF2A2A9EE2FA05471E5D504A1C>.

³⁴ Regarding the established numbers from our database project for North America, this amounts to approximately two thirds of all contemporary émigré German-speaking neurologists and psychiatrists that came to the United States and Canada: database of the “German-Speaking Émigré Neuroscientists in North America, 1933–1989” research project (Access® software) at the History of Medicine and Health Care Program of the Cumming School of Medicine, University of Calgary (2012–22).

³⁵ Elizabeth Lunbeck, *The Psychiatric Persuasion: Knowledge, Gender, and Power in Modern America* (Princeton: Princeton University Press, 1994); Joseph Schwartz, *Cassandra’s Daughter: A History of Psychoanalysis* (London: Karnac Books, 2003); Jonathan Engel, *American Therapy: The Rise of Psychotherapy in the United States* (London: Gotham Books, 2009).

³⁶ David W. Haines, *Safe Haven? A History of Refugees in America* (New York City: Kumarian Press, 2010).

apparent with the Vienna-born and -trained neurologist Leo Alexander (1905–1985), who served as medical expert to the prosecution at the Nuremberg Doctors' Trials in 1945-47.³⁷ Dr. Alexander from Frankfurt am Main, Germany, is likely the most well-known physician among the cohort of the émigré neuropsychiatrists in the wider public. He featured prominently as a neurological expert in the medical case deliberations about the Nuremberg Doctors' Trials in the widespread b/w documentary footage gathered by the US Army Signal Corps videographers led by Hollywood director John Ford (1894–1973).³⁸ Whether they came for brief stints like Alexander, to gather data for the Nuremberg Doctors' Trials, or for longer periods, these remigrating neuropsychiatrists all needed to re-engage in Central European matters without losing their personal, religious, and cultural self-respect. Embedded in the Armed Forces or as civilian co-workers when demobilized, they were often used as experts, journalists, and cultural officers.³⁹ Neuropsychiatrist Alexander was but one of them. He had already presented to a Recruit Reception Center, following his American naturalization, to join the US Army at the time of Pearl Harbour. Yet Dr. Alexander needed to wait until 1943 before he was accepted as a military psychiatrist with the Medical Corps at High Wycombe of the 8th Air Force, stationed in Britain; he ultimately rose to the rank of a major with the USAF. He was later transferred to the intelligence objectives subcommittee of the 7th Army, a unit that secured intelligence on German medical practices in prison and concentration camps.⁴⁰ Starting in 1946, in preparation for the Nuremberg Doctors' Trials, he examined neuropsychiatric patients who had been part of coerced human subject experiments and studied the fate of those killed in the Nazi euthanasia program in the mental asylum of

³⁷ Gerald N. Grob, *Mental Illness and American Society: 1875–1940* (Princeton: Princeton University Press, 1983), pp. 195-200.

³⁸ Leo Alexander, *The Treatment of Shock from Prolonged Exposure to Cold, Especially in Water* (Classified Reports; Document Rep. 250. Item 24, File No. XXVI-37, 1–228 – July 1945), edited by US Army Medical Corps. Washington, dc: Government of the US, 1946) – (https://corescholar.libraries.wright.edu/cgi/viewcontent.cgi?article=1016&context=special_books).

³⁹ Anne C. Schenderlein, *Germany on their Minds: German Jewish Refugees in the United States and their Relationships with Germany, 1938–1988* (New York City: Berghahn, 2020), p. 11.

⁴⁰ Frank W. Stahnisch, "Neuroscience Research in the Max Planck Society and a Broken Relationship to the Past: Some Legacies of the Kaiser Wilhelm Society after 1948," in: *Journal of the History of the Neurosciences* 32, 2 (2023), pp. 81-122; esp. 98-102; <https://www.tandfonline.com/doi/epdf/10.1080/0964704X.2023.2182090?needAccess=true>.

Brandenburg-Goerden.⁴¹ He played a prominent role as an expert for the prosecution during the Nuremberg Doctors' Trials (see Figure 1).

Figure 1. German-American neurologist and psychiatrist Major Dr. Leo Alexander (1905-1985), represented in this photograph examining a female survivor of the Nazi coerced human subject experiments, served as medical expert to the prosecution at the Nuremberg Doctors' Trials from 1945-47.



(Source: courtesy of Wikimedia Commons; https://commons.wikimedia.org/w/index.php?search=Leo+alexander&title=Special:Search&profile=advanced&fulltext=1&advancedSearchcurrent=%7B%7D&ns0=1&ns6=1&ns12=1&ns14=1&ns100=1&ns106=1#/media/File:Leo_Alexander.jpg; attribution 4.0 international – CC BY 4.0).

⁴¹ Paul J. Weindling (ed.), *From Clinic to Concentration Camp: Reassessing Nazi Medical and Racial Research, 1933–1945* (London, UK: Routledge, 2017), pp. 63–9.

As part of “*his job in Germany*,” Major Alexander later visited former leading brain researchers of the Kaiser Wilhelm Society (Germany’s national research foundation and cluster of non-university-based institutes – now known as the Max Planck Society for the Advancement of Science). These brain researchers included Julius Hallervorden (1882–1965), Hugo Spatz (1888–1969), and Willibald Scholz (1889–1971), who gave open interviews to him regarding their involvement in coerced human subject experimentation that made it into Alexander’s famous report, entitled “Neuropathology and Neurophysiology, including Electro-encephalography, in Wartime Germany.”⁴²

Jewish and Oppositional Émigré Neurologists and Psychiatrists in the Allied War Effort

From 1940 to 1941, the overarching process of interning German and Austrian refugees during the raging Battle of Britain and the imminent threat of a naval invasion (*Operation Seelöwe*)⁴³ – one which saw over 2,000 of the German-speaking émigrés shipped to Canada and interned (often together with German POWs) in specialized internment camps –⁴⁴ came to an end and gave way for a more accommodating stance, first in Britain *vis-à-vis* medical relicensing of refugee doctors who often lamented about being interned and thus pulled away from the Allied war effort, a cause they had been eager to join. They could, however, be released from internment early if they volunteered for the British Forces, as was the case with British neuropathologist Hans Weiss (b. 1926?),⁴⁵ and clinical psychologist Hugh Lytton (born as Heinz Lichtenstein, 1921–2002), who later became a psychology professor at the newly inaugurated University of

⁴² Leo Alexander, “Neuropathology and Neurophysiology, including Electro-encephalography, in Wartime Germany,” Document L 170 AUS, Hq. ETOUSA, Allied Forces. Supreme Headquarters, CIOs Item No. 24, Medical (Nuremberg: Combined Intelligence Objectives Sub-Committee, 20 July 1945); <https://archive.org/details/101641401.nlm.nih.gov/page/n1/mode/2up>.

⁴³ Alexander Bevin, *Inside the Nazi War Machine: How Three Generals Unleashed Hitler’s Blitzkrieg upon the World* (New York City: New American Library, 2010), pp. 259–60.

⁴⁴ Walter W. Igersheimer, *Blatant Injustice: The Story of a Jewish Refugee from Nazi Germany Imprisoned in Britain and Canada during World War II*, edited and foreword provided by Ian Darragh (Montreal: McGill-Queen’s University Press, 2005), pp. 62–5.

⁴⁵ Official SPSL letter to the British authorities to release German émigré neuropathologist Hans Weiss from internment in a camp near Birmingham, UK, in 1941. File Internment of refugees, 1939–1941, shelf mark Ms. S.P.S.L. 65–66/3 (fol. 15), SPSL Collection, Bodleian Libraries, Oxford University, United Kingdom.

Calgary. They both decided to “do their bit” for the Allied war effort by taking up the opportunity to work in civilian ammunition factories for the British Armed Forces.⁴⁶ While *enemy aliens* were exempt from conscription, they could volunteer for the Pioneer Corps of the British Army.⁴⁷ While for many, a non-combat role was not very appealing, many joined to show their loyalty to Britain in the fight against Nazi Germany. In March 1944, Lytton, for example, was able to register with the British Army and was assigned to a team where he and other émigrés translated German documents for British Intelligence. This position eventually sent him to Allied-occupied Germany as a British soldier in March 1945. He was part of a specialist unit whose goal was to search for documents from industry and institutions that could be useful to the Allies, while harbouring understandable feelings of rejection and resentment upon re-entering his home country.⁴⁸

In 1941, medically trained German-speaking émigrés residing in Britain could benefit from the newly developed moderate approach taken by the Home Office’s Advisory Committee. As pointed out in Peter Leighton-Langer’s *The King’s Own Loyal Enemy Aliens: German and Austrian Refugees in Britain’s Armed Forces, 1939–45*,⁴⁹ among those whose qualifications had been recognized and who had shown their allegiance to King George VI (1895–1952) by pursuing medical research in the British Armed Forces was Sir Ludwig Guttmann (1899–1980). Later, a world-renowned neurosurgeon, it was Dr. Guttmann who inaugurated the Paralympic Games out of his wartime neurorehabilitation approaches in the United Kingdom. He was a driving force behind the organization of the innovative British Army’s spinal cord unit of Stoke Mandeville in

⁴⁶ Gianluca Fantoni, *Soldiers, Angels, and Avengers: A History of the Jewish Brigade* (Montreal: McGill-Queen’s University Press, 2026), pp 3-20.

⁴⁷ Peter Leighton-Langer, *The King’s Own Loyal Enemy Aliens: German and Austrian Refugees in Britain’s Armed Forces, 1939–45* (London, UK: Vallentine Mitchell, 2006), p. 308; Ronald Stent, *A Bespattered Page? The Internment of His Majesty’s “Most Loyal Enemy Aliens”* (London, UK: André Deutsch, 1980), p. 212.

⁴⁸ Hugh Lytton’s army service in West Germany ended in 1947. See: Erna Kurbegović, “From German Youth to British Soldier to Canadian Psychologist: The Journey of German Émigré Dr. Hugh Lytton (1921–2002),” in: *History of Intellectual Culture* 12, 1 (2017–19): pp. 1-14; <https://journalhosting.ucalgary.ca/index.php/hic/article/view/69207/53550>.

⁴⁹ Leighton-Langer, *The King’s Own Loyal Enemy Aliens*, pp. 308-309.

preparation for the D-Day landings.⁵⁰ As the war progressed, with its scores of casualties, physically wounded, and psychologically traumatized, innovative Emergency Medical Services provided work opportunities for émigré neuropsychiatrists in military hospitals and veterans' rehabilitation facilities. While many refugee physicians, especially those from non-neuropsychiatric disciplines, had already migrated onward to North America, Australia, or other parts of the British Empire, most of the clinical psychiatrists who arrived in Britain stayed, often being aided by Cambridge neurophysiologist Archibald Vivian Hill (1886–1977) and London economist Lord William Beveridge's (1879–1963) British Society for the Protection of Science and Learning.⁵¹ Ten years after their arrival, almost all of them had been relicensed, had obtained additional qualifications, and found work opportunities in England, Wales, Scotland, and Northern Ireland.⁵² This was indeed the case with the prominent neurosurgeon Sir Ludwig ("Poppa") Guttmann, whose example illustrates how perseverance in continuing earlier research projects could eventually lead to a valuable enrichment of clinical work for the Allied Forces.⁵³

While a Canadian counterpart did exist in the organization of the Canadian Society for the Protection of Science and Learning (CSPL),⁵⁴ which went through a prolonged inauguration phase from 1933 to 1935, many countries had already responded to the growing refugee crisis from Nazi Germany after Adolf Hitler (1889–1945) had come to power. In Canada, however, an organized support body became fully operative only in 1938 (and until 1941) with the Canadian Society for the Protection of Science and

⁵⁰ Frank W. Stahnisch and Jeremy Tynedal, "Sir Ludwig Guttmann (1899–1980)," in: *Journal of Neurology* 259, no. 7 (2012): pp. 1512–14; <https://link.springer.com/article/10.1007/s00415-012-6431-8>.

⁵¹ David Zimmerman, "The Society for the Protection of Science and Learning and the Politicization of British Science in the 1930s," in: *Minerva* 44, no. 1 (2006): pp. 25–45; <https://link.springer.com/article/10.1007/s11024-005-5405-8>.

⁵² Paul J. Weindling, "Alien Psychiatrists: The British Assimilation of Psychiatric Refugees, 1930–1950," in: *International Relations in Psychiatry: Britain, Germany, and the United States to World War II*, edited by Volker Roelcke, Paul J. Weindling, and Louise Westwood, pp. 218–35 (Rochester, NY: University of Rochester Press, 2010).

⁵³ Guttmann L, Rescinding of License to Practice Medicine, Learning English, Translated Transcripts of Documents. Wellcome Library for the History and Understanding of Medicine, London; Ludwig Guttmann Papers (pp/gut/A.1/3, box 1 (1938/1939), p. 6.

⁵⁴ Paul Stortz, "'Rescue Our Family from a Living Death': Refugee Professors and the Canadian Society for the Protection of Science and Learning at the University of Toronto, 1935–1946," in: *Journal of the Canadian Historical Association* 14, no. 1 (2003): 231–261; <https://www.erudit.org/en/journals/jcha/2003-v14-n1-jcha849/010326ar/>.

Learning, inaugurated through Canadian faculty associations and spearheaded by the University of Toronto's President Henry John Cody (1868–1951). By the time of the outbreak of the Second World War, this concerted endeavour had come somewhat too late when it began helping the very last scholars to escape Nazi-controlled Europe; a total of forty-two physicians and researchers were helped and supported by the Canadian Society for the Protection of Science and Learning.⁵⁵ Yet, what emerged from the empirical findings from our own database is that sixty-five émigré neurologists, psychiatrists, and neuropathologists (among many other biomedical scientists and physicians) did arrive in Canada, though they were largely helped by *external* aid sources, such as the Society for the Protection of Science and Learning in Britain or the Rockefeller and Carnegie Foundations in the United States,⁵⁶ but without help from the Canadian Society for the Protection of Science and Learning itself.

One important *internal* development, which benefitted the émigré German-trained neurologists and psychiatrists on this side of the Atlantic, was the significant role that Canada assumed for the scientific and medical advancement of the Allied war effort during the Second World War. As prefaced above, the war was as much a battle of scientific minds as it was of bullets and bombs, and research programs came up with important contributions to giving the Allies an edge in the conflict.⁵⁷ The centre of wartime research existed around the National Research Council at 100 Sussex Drive in Ottawa (which had already been founded in 1913,⁵⁸ and had grown to prominence during the First World War),⁵⁹ the armed forces themselves, and various Crown corporations undertaking research in weapons, aeronautics, nutrition, medicine, and other areas.

⁵⁵ Irving Abella and Harold Troper, *None Is Too Many: Canada and the Jews of Europe, 1933–1948* (New York City: Random House, 1983), p. 60.

⁵⁶ These absolute numbers are derived from the database project "German-Speaking Émigré Neuroscientists in North America," at the History of Medicine and Health Care Program (HOMHCP) of the Cumming School of Medicine (CSM), University of Calgary, AB (2012–2022).

⁵⁷ Avery, *The Science of War*, pp. 14–40.

⁵⁸ Mel Thistle, *The Inner Ring: The Early History of the National Research Council of Canada* (Toronto: University of Toronto Press, 1966).

⁵⁹ The effective postwar president of the NRC, General Andrew George Latta McNaughton (1887–1966), had been a former member of the Canadian Expeditionary Forces in Europe. McNaughton came into the position following his research-coordinating role as deputy chief of the general staff of the Canadian Army from 1920 to 1928.

Canadian and Allied researchers carried out studies in areas of motion sickness, psychoactive drugs, life-threatening injuries and shock, psychological aptitude tests, military pathology, and gunshot wounds under the supervision of Dr. Charles H. Best (1899–1978) from the University of Toronto.⁶⁰ The Ontario Banting Institute also made improvements to aircrew equipment and conducted research into the effects of fatigue and shock phenomena, often including contributions from young Canadian investigators and skilled international specialists – émigrés among them.⁶¹ In 1944 and 1945, the three hundred National Research Council intramural scientific staff had an average age of about twenty-six.⁶² Because of men like Prime Minister Mackenzie-King and engineer Clarence Decatur Howe (1886–1960), who was a Liberal Party politician and Minister of Munitions and Supply, organizing Canada's war effort, Canada became an important player in the Allied scientific war effort and in military medicine applications. These endeavours turned out especially impactful when the Privy Council officially designated the National Research Council as a War Unit in 1943, thus giving the National Defence Research Board self-governing power as well as financial and decision-making leverage.⁶³

⁶⁰ LAC, Ottawa, ON (National Research Council Fonds), RG24, box: 10 vol. 4117: file 30: Department of National Defence – Content.

⁶¹ It is tragic that physiologist Sir Frederick G. Banting (1891–1941), who personally supported aeronautic research and who wanted to demonstrate an innovative flying suit in England, which stopped pilots from passing out during high-speed descent maneuvers, died himself from a plane crash 16 kilometers south of Musgrave Harbour in Newfoundland. The plane suffered from engine trouble after its takeoff from Gander. And while the operator and navigator died on the spot, Dr. Banting passed away one day after the crash, on 21 February 1941, since rescue teams had failed to reach the plane wreck early enough. Michael Bliss, *Banting – A Biography* (Toronto: University of Toronto Press, 1984), pp. 305-308.

⁶² Paul J. Weindling, *John W. Thompson: Psychiatrist in the Shadow of the Holocaust* (Rochester, NY: University of Rochester Press, 2010) p. 69.

⁶³ LAC, Ottawa, ON (National Research Council Fonds), RG77, box: 171 vol. 288: file 1-1-15: Department of National Defence: Exchange of Information with the U. S. A. (Dean Mackenzie, Director of Scientific Research, National Research Council of Canada).

Table 1. Émigré neuroscientists and psychiatrists in Canada pursuing war-related medical, research, or military work during or after their emigration to North America.⁶⁴

Name	Life years	Place of birth (modern names only)	Country of origin at time of birth (current day country if applicable)	Primary institution(s) in Canada	Main title(s) after emigration	Research field(s) and/or clinical field(s)	Notes
Altschul, Rudolf	1901–1963	Prague	Austria-Hungary (Czech Republic)	University of Saskatchewan	Head, Department of Anatomy	Neuroanatomy	Received Defence Research Board funding for neurodegeneration-related laboratory analyses.
Igersheimer, Walter Wilhelm	1917–2012	Göttingen	Germany	Yale University, private practice	Professor	Paediatrics, psychiatry, group psychotherapy	Canadian Veteran's Administration Psychiatry.
Olszewski, Jerzy	1913–1964	Vilnius	Russia (Lithuania)	McGill University, University of Saskatchewan, University of Toronto	Chair, Department of Neuropathology	Neuropathology	Engaged in pathology-related research for the Defence Research Board in the 1940s.
Lehmann, Heinz	1911–1999	Berlin	Germany	Douglas Hospital (McGill University)	Chairman, Department of Psychiatry	Psychopharmacology	Received Defence Research Board funding for neurochemical laboratory analyses.
Lytton, Hugh	1921–2002	Nuernberg	Germany	Tavistock Clinic, University of Exeter, University of Calgary	Professor, Department of Psychology	Child psychology, psychometrics	British Army Pioneer Corps and Military Intelligence work.
Selye, Hans	1908–1982	Vienna	Austria-Hungary (Austria)	Montreal Neurological Institute (McGill University), Université de Montréal	Director, Institute of Experimental Medicine and Surgery, Université de Montréal	Neuroendocrinology, stress response	Received Defence Research Board funding for neurochemical laboratory analyses.
Weil, Robert	1909–2002	Vimperk	Austria-Hungary (Czech Republic)	Dalhousie University	Associate Professor, Department of Psychiatry	Neuropathology, social psychiatry, mental health care	Canadian Veteran's Administration Psychiatry.
Wittkower, Erich	1899–1983	Berlin	Germany	McGill University	Associate Professor of Psychiatry	Psychosomatics, transcultural psychiatry	Medical Corps of the British Armed Forces.
Wyant (Weiss), Gordon Michael (Gunter Maximilian)	1914–2009	Frankfurt am Main	Germany	Loyola University (Chicago), University of Saskatchewan	Head, Department of Anaesthesia	Anaesthesiology, neurology of pain	Interned as an "enemy alien" and incarcerated in Australia (1940–41). Served in the Royal Army Medical Corps (1941–45).

This step offered considerable autonomy to the National Defence Research Board, rather than the other possibility of creating a governmental department structure dedicated to research and innovation, which would have subsumed both the National Research Council and defence research projects, or the option of leaving defence research as a subset of the National Research Council in Ottawa.⁶⁵ The best model was believed to be

⁶⁴ Information according to the database of the "German-Speaking Émigré Neuroscientists in North America, 1933–1989" research project (Access® software) at the History of Medicine and Health Care Program of the Cumming School of Medicine, University of Calgary (2012–22).

⁶⁵ Ray Fletcher Farquharson, "The Medical Research Council of Canada," in: *Canadian Medical Association Journal* 85, no. 22 (25 November 1961), pp. 1194–1198; esp. 1196.

the inauguration of a coordinating agency within the Department of National Defence itself, equivalent to the three existing services and not requiring further political decision-making, thus offering the conditions for rapid action. In search of its leadership, Charles Best, who was one of the Council members advising Mackenzie-King during the war, knew of the work that his former trainee, physiologist Omond Solandt (1909–1993), was doing in Britain. Based on their recommendations, Solandt was nominated and later accepted the position as a director of the Defence Research Board, confirmed by the Privy Council. When, immediately after the war, the Department of National Defence exchanged information with the US National Research Council, it turned out that the three areas in which émigré neuroscientists had been active in work for the Allied war effort figured among the domains to which they had been contributing alongside their Canadian, American, and British colleagues:

- (1) drugs, addition, and narcotics;
- (2) clinical and laboratory-based neurology and psychiatry;⁶⁶
- (3) pathological research and registries.⁶⁷

⁶⁶ One example is the research headed by German-trained Czech psychiatrist Robert Weil (1909–2002) at Dalhousie University in Nova Scotia. He not only worked for the Defence Research Board during the Second World War on questions of personnel testing and psychological mood questions (LAC), Ottawa, ON (Special Collection), MG28V5, box: 5 vol. 7: file 5: Robert Weil – Psychology. He also was committed to Cold War research on the problem of “social war neurosis: Robert J. Weil, “Mental Health and Disasters,” in: *Symposium in Human Problems in The Utilization of Fallout Shelters*, edited by George W. Baker and John H. Rohrer, pp. 67–77 (Washington, DC: National Academy of Sciences / National Research Council, 1960).

⁶⁷ LAC, Ottawa, ON (National Research Council Fonds), RG24, box: 171 vol. 4217: file 700: Department of National Defence – Exchange of Information with the U. S. A.

Table 2. Émigré neuroscientists and psychiatrists in the United States pursuing war-related medical, research, or military work during or after their emigration to North America.⁶⁸

Name	Years lived	Place of birth (modern names only)	Country of origin at time of birth (current day country if applicable)	Primary institution(s) in the United States	Primary title(s) after emigration	Research field(s) and/or clinical field(s)	Notes
Alexander, Leo	1905-1985	Vienna	Austria-Hungary (Hungary)	Columbia University	Professor of Neurology	Neurology, clinical psychology, biomedical ethics	1944-1947 Neuropsychiatric expert for the prosecution at the Nuremberg Doctors' Trials.
Bibring, Edward	1894-1959	Stanislau	Austria-Hungary (Hungary)	Boston Analytical Society	Adjunct Professor, Massachusetts General Hospital	Neuropsychiatry, psychoanalysis,	US Veteran's Administration psychoanalyst.
Eissler, Kurt	1908-1999	Vienna	Austria-Hungary (Austria)	Private practice (Chicago, then New York)	Psychoanalyst	Neuropsychiatry, psychoanalysis	Served in the US Army as a neuropsychiatrist from 1943-1946. Co-founder of the Sigmund Freud Archives. Spouse of Ruth Selke Eissler.
Eissler Selke, Ruth	1906-1989	Odessa	Russia (Ukraine)	Michael Reese Hospital (Chicago), New York Psychoanalytic Society	Child psychiatrist (Michael Reese); Training Analyst (New York)	Psychology, psychoanalysis	Neuropsychiatrist in the US Army.
Friedman, Lawrence	1907-1986	Satmar	Austria-Hungary (Hungary)	Los Angeles Psychoanalytic Society and Institute	Dean of Instruction and Chairman, Education Committee	Psychology, psychoanalysis	Served in the US Army from 1942-1946 in the Medical Corps.
Grotjahn, Martin	1904-1990	Berlin	Germany	Menninger Clinic (Topeka), Southern California Institute for Psychoanalysis; University of Southern California	Staff physician (Menninger); Clinical Professor of Psychiatry (USC)	Psychiatry, dreaming, group therapy, psychotherapy	Served in the US Army Medical Corps from 1943-1946.
Hakerem, Gad	1919-2008	Schwerte	Germany	New York Department of Mental Hygiene, Queen's College (City University of New York)	Director of Nursing Services (Israel); Senior Research Scientist (NY); Professor of Psychology (Queen's College)	Psychopharmacology	Served in the British Army/IDF in the 1940s.

⁶⁸ Information according to the database of the "German-Speaking Émigré Neuroscientists in North America, 1933–1989," research project (Access® software) at the History of Medicine and Health Care Program of the Cumming School of Medicine, University of Calgary (2012–22).

Hecht, Manfred	1918-2006	Vienna	Austria-Hungary (Austria)	Postgraduate Center for Mental Health (New York), private practice	Psychoanalyst	Psychology, psychoanalysis	Was also a singer, performing in multiple Broadway musicals in the 1940s and continuing his singing career into the 1950s. Served in the US Army from 1943-1945.
Hoff, Hans	1897-1969	Vienna	Austria-Hungary (Austria)	Columbia University	Dean, University of Vienna	Neurology, encephalitis, postural reflexes	Psychiatrist in the US Army – returned to Austria in 1949 after the war.
Kuffler, Stephen	1913-1980	Táp	Austria-Hungary (Hungary)	Harvard University	Professor of Ophthalmic Physiology and Biophysics	Neurophysiology, ophthalmology	Served as a radio operator in the Australian Navy.
Kuhlenbeck, Hartwig	1897-1984	Jena	Germany	Medical College of Pennsylvania	Professor of Neurology and Anatomy	Neuroanatomy, neurobiology, morphologic evolution of the brain	Armed Forces Institute of Pathology / US military public health program in the Pacific Theatre.
Lewy, Friedrich/Frederic Heinrich [also: Lewey]	1885-1950	Berlin	Germany	University of Pennsylvania	Professor of Neuroanatomy	Neuroanatomy, neurophysiology, histology, nervous system rehabilitation	Neurology consultant to the Surgeon General US Armed Forces and the US Veteran's Administration post-WWII.
Lowenbach, Hans	1905-1983	Duisburg	Germany	Duke University	Professor of Neurology; Chair, Department of Psychiatry	Neurology, psychiatry	Concurrently served in the U.S. Army, retiring in 1965 with the rank of colonel.
Neubuerger, Karl T.	1890-1972	Frankfurt am Main	Germany	University of Colorado	Professor, Department of Pathology	Neuropathology	Armed Forces Institute of Pathology / US military service research post-WWII.
Niederland, William G. [also: Wilhelm G.]	1904-1993	Szepol	Germany (Poland)	State University of New York	Professor of Clinical Psychiatry	Psychiatry, psychoanalysis, psychogeography	Compensation specialist and psychiatric advisor for the US Military Government in West Germany.
Pollak, Otakar Jaroslav	1906-1974	Brno	Austria-Hungary (Czech Republic)	Kent General Hospital (Dover, Delaware), Delaware Technical and County College	Director of Laboratory Medicine (Delaware Tech)	Neuropathology, atherosclerosis research	Animal curator for defence-related laboratories of the US Army.
Quadfasel, Fred	1902-1981	Frankfurt am Main	Germany	Boston Veterans Administration	Head, Department of Neurology	Neuropsychology, language centres of the brain, aphasia research	US Veteran's Administration neurologist.

Radó, Sándor	1890-1972	Kisvárd	Austria-Hungary (Hungary)	Columbia University	Founder and director, Graduate School of Psychoanalysis	Psychology, psychonanalysis	Engaged in pathology-related research for the US Army in the 1940s.
Riese, Walter	1890-1976	Berlin	Germany	Medical College of Virginia (Richmond)	Associate Professor of Neurology, Psychiatry, and History of Medicine	Neuropsychiatry, history of medicine, clinical neurology	Armed Forces Institute of Pathology / Global US military public health program.
Rosenstein, Alice	1898-1991	Wroclaw	Germany (Poland)	Montefiore Hospital (New York)	Psychiatrist; Neurologist	Neurosurgery, psychiatry	Considered to be Germany's first female neurosurgeon before her emigration. Served in the US Army from 1943-45, where she criticized the discharge of lesbian soldiers in the Women's Army Corps.
Rothmann, Hans	1899-1970	Berlin	Germany	Private practice (San Francisco, California)	Internist	Internal medicine	Served in the US Army during World War II in the Pacific Theatre as a medical officer.
Silberberg, Martin	1895-1966	Rybnik	Germany (Poland)	Washington University of St. Louis	Researcher, Department of Pathology (Dalhousie)	Neuropathology, neurogeriatrics, pathogenesis of osteoarthritis	Engaged in pathology-related research for the US Army in the 1940s.
Simon, Eric	1924-unknown	Wiesbaden	Germany	City College of New York, New York University	Professor of Experimental Medicine (NYU)	Neurochemistry, modes of action of narcotics, metabolism of Vitamin E	Served in the US Army from 1944-1946 in the European Theatre.
Simon, Werner	1914-2009	Bremen	Germany	University of Minnesota	Professor of Clinical Psychiatry, School of Medicine	Psychiatry, clinical psychiatry	Served in the US Army Medical Corps from 1944-1946.
Stern, John	1925-2010	Montabaur	Germany	Washington University of St. Louis; Malcolm Bliss Mental Health Center (St. Louis)	Head, Department of Medical Psychology (Washington University); Director of Research (Malcolm Bliss)	Psychophysiology, medical psychiatry, psychophysiology, physiology of attention processes	Served in the US Army from 1943-1945 in the European Theatre.
Wexberg, Leopold	1889-1957	Vienna	Austria-Hungary (Austria)	Louisiana State University, D.C. Bureau of Mental Hygiene	Director, Child Guidance Clinic (LSU); Chief, Bureau of Mental Hygiene (DC)	Neuropsychiatry	Served in the US Army from 1941-1945 as director of the neuropsychiatric departments of various army hospitals.
Zimmer, Herbert	1924-1968	Fürth	Germany	Georgetown University, University of Georgia (Athens), Hunter College (City University, NY)	Professor and Director of Bioelectronic Computer Lab (Hunter College)	Psychology, behavioural science, conditioning	Served in the US Army from 1943-1946 in the European Theatre.

Historical case studies pivotally reveal the broad opportunities created by military employment during the Second World War, which played a crucial role in reshaping scientific careers, professional development, and especially biographical shifts. The three cases assembled here represent forms of acculturation by mobilizing previous biographical experiences, educational resources, as well as conceivable military training skills. The first case study (Kuhlenbeck) represents the fate of a non-Jewish refugee neuroanatomist turning his medical, cultural, and linguistic skills into public health programming for the advancing Allied troops, the second one (Wittkower) characterizes the experiences of a Jewish refugee psychiatrist who was active in intellectual and medical circles in Britain, before migrating onwards to North America and co-creating trans-cultural psychiatry as a new field. And the third one (Neubuerger) exemplifies the biographical development of a Jewish refugee neuropathologist, who also made important editing contributions to military science publication endeavours for the military and beyond.

First Case Study: Hartwig Kuhlenbeck

One of the case examples that helps to illustrate the contributions of German-trained émigré neurologists and psychiatrists to the Allied war effort is neuroanatomist Hartwig Kuhlenbeck (1897–1984),⁶⁹ who belonged to the exceptional group of only 2–5 percent of refugees who left Nazi Germany not for the reason of being persecuted like the 85% of Jewish refugee neuropsychiatrists or the additional 10 percent of physicians who belonged to the Communist Party or the Socialist Physicians' League and thus became prime targets of Nazi persecution.⁷⁰ From his perspective as a humanistically trained German *Bildungsbuerger*, Kuhlenbeck had been critical of the emerging Nazi movement since the 1920s. Having attended a Catholic boarding school in Naumburg (Saxony-Anhalt), he completed an abbreviated wartime education, allowing him to take part as an artillery technician on the Western Front.⁷¹ There, he learned flying and became a reconnaissance pilot for his artillery unit ("*Feldfliegerabteilung 5b 2.7.1.*") during the

⁶⁹ Frank W. Stahnisch, "Hartwig Kuhlenbeck (1897–1984)," in: *Journal of Neurology* 263, 12 (2016): 2567–2569; <https://link.springer.com/article/10.1007/s00415-016-8151-y>.

⁷⁰ Michael Kater, *Doctors Under Hitler* (Chapel Hill, NC: University of North Carolina Press, 1989), pp. 12–34.

⁷¹ Personal Records — 18 March 1979. Box 1, p. 12. Hartwig Kuhlenbeck Papers. Series I: personal papers, journals (ducom.323). Archives and Special Collections, Drexel University, College of Medicine in Philadelphia.

Third Battle of Ypres.⁷² The casualties that he witnessed during the First World War drew him to the study of medicine in a double major with philosophy. He first graduated in Jena in 1921 with a philosophical thesis supervised by Nobel laureate Rudolph Christoph Eucken (1846–1928). During the interwar period, Kuhlenbeck graduated again with a scientific MD from the University of Breslau, looking at the neurodevelopmental of the telencephalon of the brain that was supervised by Heinrich von Eggeling (1849–1954). Following his peregrination as a surgeon on a transatlantic cruiser, he lived for a year and a half in Mexico. In 1927, Kuhlenbeck accepted a guest professorship in anatomy at Tokyo's Imperial University. When Kuhlenbeck returned to Germany with his wife in 1930, he told of the political street fights between right-wing and left-wing crowds in Breslau; he sensed that Nazi groups were on the rise and decided to leave Germany together with his wife Ozelia Proteau (1895–1982).⁷³

At the end of a complicated migration route that brought him from Britain to Japan, and then to the United States, Dr. Kuhlenbeck received a fellowship at Mount Sinai in New York and became an accredited and registered physician in 1935. Through acquaintance with neuropathologist Joseph Haines Globus (1885–1952), he was appointed at the University of Pennsylvania School of Medicine. This was just for a brief period, however; however, when the United States entered the war, Kuhlenbeck enlisted with the US Army Medical Corps.⁷⁴ His experience in the German Imperial Army during the First World War and his medical expertise were both useful assets when being considered for military intelligence work. In this capacity, Kuhlenbeck drafted ten major reports on health and sanitation in Japan and Korea that became the "*Anonymous Joint Intelligence Study Publishing Board Publications*" in 1944–47.⁷⁵ Although in his diary, he lamented that he was not chosen for active duty in the Pacific Theatre, he contributed

⁷² Harald F. Potempa, *Die Koeniglich-Bayerische Fliegertruppe, 1914–1918* (Frankfurt am Main, Germany: Peter Lang, 1997), p. 538.

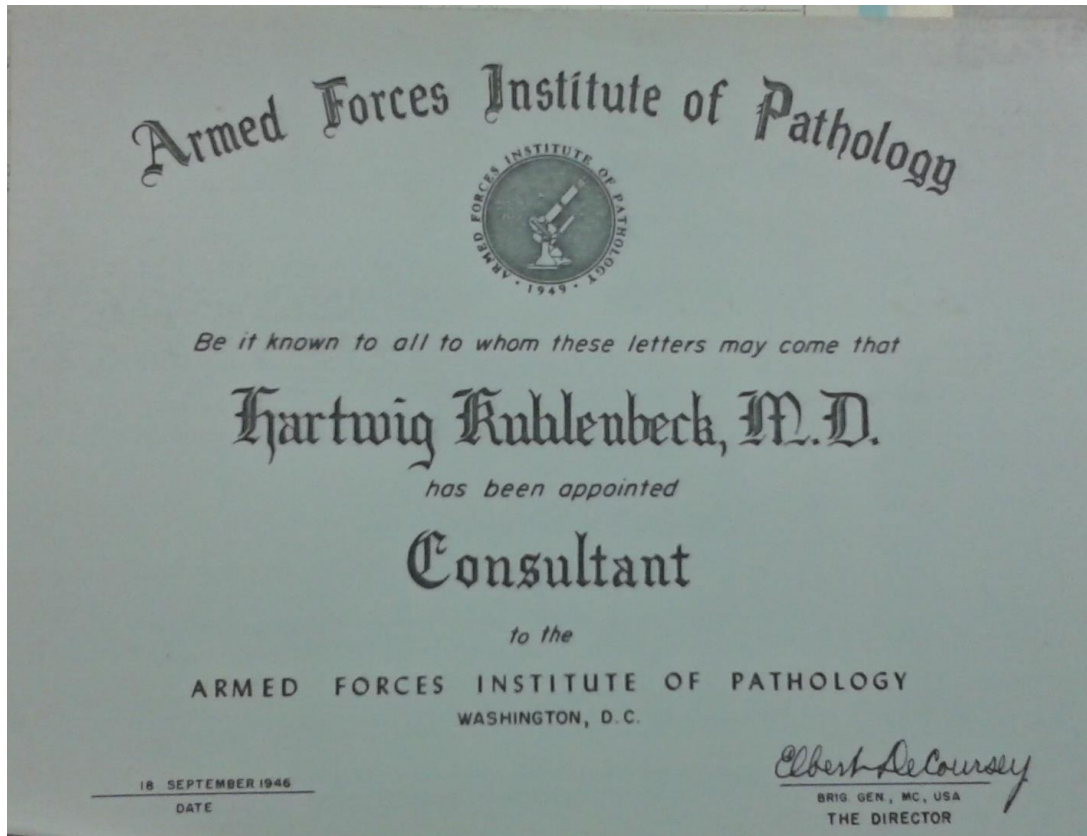
⁷³ Diary Papers (1933–34). Box 5, p. 198. Hartwig Kuhlenbeck papers. Series I: personal papers, journals (ducom.323). Archives and Special Collections, Drexel University, College of Medicine in Philadelphia.

⁷⁴ Armed Forces Institute of Pathology (1944–1945). Box 1, pp. 11–12. Hartwig Kuhlenbeck papers. Series I: personal papers, journals (ducom.323). Archives and Special Collections, Drexel University, College of Medicine in Philadelphia.

⁷⁵ The results were later published in: Robert S. Anderson (ed.), *Preventive Medicine in World War II, vol. IX – Special Fields* (Washington, DC: Medical Department, United States, 1969), pp. 137–221; <https://apps.dtic.mil/sti/tr/pdf/ADA286761.pdf>.

importantly to medical policy discussions during the Second World War, in addition to acting as a consultant to the Armed Forces Institute of Pathology (see Figure 2).

Figure 2. Photograph of Dr. Kuhlenbeck's Appointment Certificate by the Armed Forces Institute of Pathology in the United States (18 September 1946). (Image courtesy of Drexel University, College of Medicine, Archives and Special Collections—Hartwig Kuhlenbeck papers. Series I: personal papers, journals (DUCOM.323), box 1, n.pag., Philadelphia, PA).



After he was released from duty, he connected with the American Association of Anatomists and established widespread professional connections and participated in the national conferences of the anatomical science community. Kuhlenbeck returned to Philadelphia, assuming the headship of the anatomy department at the Women's Medical College, now part of Drexel University,⁷⁶ a post he held for thirty-five years, followed by

⁷⁶ Armed Forces Institute of Pathology Certificate, 18 September 1946. Box 1, n.pag. Hartwig Kuhlenbeck papers. Series I: personal papers, journals (ducom.323). Archives and Special Collections, Drexel University, College of Medicine in Philadelphia.

thirteen years as an emeritus professor dedicated to the comparative study of the brain and neurophilosophical publications. He became a beloved teacher at the Women's Medical College, personally training every medical graduate in anatomy between 1936 and 1971 and never losing his long-held recreational passion for flying that he had first developed and mastered in the Great War.⁷⁷

Second Case Study: Eric Wittkower

Another insightful case example of a medical researcher joining the Allied war effort during the Second World War was the German-trained émigré internist and psychiatrist Eric D. Wittkower (1899–1983) from the Friedrich Wilhelms University in Bonn. On April 4, 1899, Eric Wittkower was born to parents of Jewish descent in Berlin. He personally described his parents as agnostics, his father being born in Scotland and working as a merchant in Berlin. Upon his son's birth, he applied for British citizenship. Eric Wittkower had two older sisters who later perished in the Holocaust. When, during the course of the First World War, his father and his three brothers were suspected of being British agents and imprisoned, Eric was allowed to continue his high school program under the condition that he renounced his British citizenship.⁷⁸ In September of 1917, he enrolled at the University of Berlin to study medicine. In the register of students for the summer semester of 1919, it is noted that Wittkower was still *in the field*, having served from 1917 to 1918 in the supply branch of the 70th Infantry Regiment of the Imperial Army in Saarbruecken. On his return, he graduated with his MD at the University of Berlin in 1924, beginning to “introduce psychotherapeutic methods within the framework of internal medicine.”⁷⁹ From 1925 to 1930, he was an assistant in the Medical Clinic at the Charité in Berlin. From 1930 to 1933, he became an assistant in the Psychiatric Clinic under the supervision of Prof. Karl Bonhoeffer (1868–1948), one of the leading psychiatrists in Germany, while also beginning psychoanalytic training at the

⁷⁷ Stahnisch, “Hartwig Kühlenbeck (1897–1984),” p. 2568.

⁷⁸ Christina Henning, Emmanuel Delille, and Thomas Mueller, “Cross-cultural, transnational or interdisciplinary? Eric Wittkower's psychosomatic medicine and transcultural psychiatry in historical context,” in: *Transcultural Psychiatry* 60, no. 4 (2023), pp. 703-716;
https://pmc.ncbi.nlm.nih.gov/articles/PMC10504809/pdf/10.1177_13634615221149352.pdf.

⁷⁹ Eric D. Wittkower, *Some Autobiographical Notes* (hand- and typewritten, Montreal, 1981), edited by Christina Henning, Emmanuel Delille and Thomas Mueller (London, UK: Sage, 2023), p. 713;
https://pmc.ncbi.nlm.nih.gov/articles/PMC10504809/pdf/10.1177_13634615221149352.pdf.

Berlin Psychoanalytic Institute. From 1932 to 1933, he was *Privatdozent* in psychosomatic medicine at the University of Berlin, hoping ultimately to become a clinical researcher.⁸⁰

However, due to the rise of Nazism in Germany, at the end of March 1933, Eric and his wife Claire Wittkower (1907–2009) left their home country, first moving to Switzerland, and then to the United Kingdom, where he received a laboratory research fellowship at the Maudsley Clinic. The Society for the Protection of Science and Learning supported the Wittkowers, and shortly after they arrived, Wittkower's former British citizenship was restored. Pursuing further training in Edinburgh and Glasgow, he came to serve as a psychiatrist in the British Army from 1940 to 1945,⁸¹ having received an invitation from Major Ferguson Rodger (1907–1978) to continue psychosomatic research at Edinburgh Castle, which then served as a military hospital. A few months later, Major John Rawling Rees (1890–1969), the previous Director of the Tavistock Clinic who had since become Consultant in Psychiatry at the War Office, asked him to develop an Officer Selection Scheme:

A need for an Officer Selection Scheme had arisen because after Dunkirk [May/June 1940], selection of suitable candidates on the basis of battle performance was no longer possible. The Adjutant General [of the Armed Forces, Sir Ronald Adams, 1896–1976] made it clear that selection of officers should henceforth no longer be confined to public school boys, but that suitable secondary schoolboys should be considered (verbal communication). To prepare me for the job I was posted to the Royal Scots Fusiliers as an RAMC officer, received through American sources information about German officer selection procedures, and had the constant valuable advice of Sir Andrew Thorne [1895–1970], the Army Commander of Scotland. To test the validity of my appraisals, I was instructed to interview three samples, each 100, of officers at the Company Commander School in Edinburgh, and each report was compared by a neutral observer with the corresponding report by Colonel

⁸⁰ File Wittkower, Dr Erich (1899–), shelf mark Ms. S.P.S.L. 399/10 (fol. 388), SPSL Collection, Bodleian Libraries, Oxford University, United Kingdom.

⁸¹ Weindling, "Alien Psychiatrists: The British Assimilation of Psychiatric Refugees," in: *International Relations in Psychiatry: Britain, Germany, and the United States to World War II*, pp. 228–229.

Buchanan Smith [1898–1984], Commandant of the School. The results of the comparisons were regarded as satisfactory.⁸²

The Selection Scheme, as he developed it, was, in brief, as follows: the officer candidate was examined by a psychologist for personality characteristics, then interviewed for one hour by a psychiatrist, and was then tested by a Military Testing Officer (M.T.O.) for their performance in the field. This scheme was then followed by a committee meeting, and only if all members of that panel unanimously agreed, was the candidate passed, with the chairing colonel having the final decision and the option to perhaps order further exploration to be carried out. The scheme was accepted, and the first War Office Selection Board (WOSB, Edinburgh) was inaugurated.⁸³ Thereafter, Major Wittkower was transferred to Birmingham and Northfield Military Hospital, where the hospitals had to be restructured into teaching hospitals for group therapy. Wittkower took over medical, administrative, and planning tasks around organizing education for both British and US officers, while also continuing to write up the first-hand observations and findings from his previous military medical practice:

New assignments awaited me at the War Office in London. Brigadier [W.R.F.] Osmond [d. 1950], in charge of the Venereal Disease Section, was concerned about the tremendous increase of V. D. among the troops. Assuming correctly that the rate of V. D. depends to some extent on indiscriminate promiscuity, I was instructed to explore this subject and to offer advice. Captain [David Tennant] Cowan [1896–1983] and I examined hundreds of soldiers suffering from V. D. all over England. The War Office memoranda presenting our observations got lost. A résumé of my findings has been published in the *American Journal of Psychosomatic Medicine* [see Figure 3]. This was the time when London was subjected to air attacks by buzz bombs and rockets. The air bombardment was rather unpleasant.”⁸⁴

⁸² Wittkower, *Some Autobiographical Notes*, p. 713.

⁸³ John Murphy, “War Office Selection Boards 1942–46,” in: *History & Philosophy of Psychology* 10, 1 (2008), pp. 16–31; <https://explore.bps.org.uk/content/bpshpp/10/1/16>.

⁸⁴ Wittkower, *Some Autobiographical Notes*, p. 715. The publication of his medical experiences during the Second World War, which Wittkower refers to in this quote, is Eric Wittkower and Robert C. Davenport, “The War Blinded – Their Emotional, Social, and Occupational Situation,” in: *Psychosomatic Medicine* 8, no. 2 (1946), pp.

Figure 3. Frontpage of Eric Wittkower and Robert C. Davenport, "The War Blinded – Their Emotional, Social, and Occupational Situation," in: *Psychosomatic Medicine* 8, 2 (1946), pp. 121-137. (Image courtesy of Lippincott, Williams & Williams, Philadelphia, PA; https://journals.lww.com/bsam/citation/1946/03000/reviews,_abstracts,_notes_and_correspondence__the.10.aspx).

REVIEWS, ABSTRACTS, NOTES AND CORRESPONDENCE

THE WAR BLINDED

THEIR EMOTIONAL, SOCIAL AND OCCUPATIONAL SITUATION

MAJOR E. WITTKOWER, R.A.M.C., AND R. C. DAVENPORT, F.R.C.S.*

I. INTRODUCTION

In continuance of previous similar studies in the limbless and in monocular personnel, the following report, made jointly by a psychiatrist and an ophthalmologist, concerns itself with the state of mind of the blinded. It tries to outline the numerous subjective and objective difficulties with which the blinded ex-serviceman is confronted. Its immediate object is to help the war blinded and those in charge of them. Beyond this it is hoped that it will throw into relief problems which exist in similar form in other war disabled. Rehabilitation of temporarily or permanently disabled personnel can only be successful if regard is given not only to the men's physical readaptation, but also full cognisance is taken of their emotional state, their employment situation and their integration within their small group and within the community at large.

nearly 3,000 war blinded individuals, and a world wide organization has been built up which not only made the lives of many men and women, but has by its activities and advices, enormously advanced the cause and welfare of the blind everywhere. Its experience and experiments have produced activities and apparatus of great value. In this war during which many hundreds have come into its care in Great Britain and overseas, it has operated a hospital for service cases with grave eye injury and this has brought men and women into its special atmosphere in the earliest stages of their blinding.

II. MATERIAL AND PROCEDURE

Biographical studies extending over at least three hours for each subject were made in an unselected sample of 103 blinded persons. The sample was composed as shown in Table I.

TABLE I

1. Sex	99 men; 4 women.
2. Age varying from 19 to 49	5 men blinded during the previous war, aged 43-56.
3. Marital status (prior to blindness)	47 married; 56 single.
4. Arm of service	Army 83 (1 member of the A.T.S.); Navy 6; Airforce 8; Civilians 6 (including 3 women).
5. Rank	6 Officers; 27 N.C.O.'s; 64 Privates or equivalent.
6. Type of enlistment	16 members of the Regular Forces; 22 Territorials; 23 Volunteers; 36 Conscripts.
7. Visual defect	73 totally blind; 30 semi-sighted but within the blind standards.
8. Cause of visual defect	96 injury; 7 disease.
9. Attributability	Blindness attributable to enemy action 48 Blindness not attributable to enemy action 55 (The high percentage of cases not attributable to enemy action is explained by the fact that military activities had not then opened in Western Europe and that battle casualties from fighting in the Middle East came back from this area as and when transport permitted.)
10. Duration of disability	17 were seen within 6 months after blindness. 50 were seen between 7-24 months after blindness. 30 were seen 25 months or more after blindness. 6 were seen 20 years or more after blindness (including 5 previous war cases).

With the exception of a few cases in the factory group, all the blinded studied were, or had been, at St. Dunstan's.

Founded early in the last war by Sir Arthur Pearson, St. Dunstan's trained and looked after

* Medical Commandant and Ophthalmic Surgeon to St. Dunstan's.

Verbatim notes of every interview and a detailed report on every patient were kept. Special attention was paid to the type of reaction displayed and the factors determining it. Valuable additional information was obtained by conversation with the staff and with wives of some blinded ex-servicemen.

121-137; https://journals.lww.com/bsam/citation/1946/03000/reviews,_abstracts,_notes_and_correspondence__the.10.aspx.

In 1951, Wittkower left Britain to come to Canada after having completed his medical service in the Royal Army Medical Corps, moving to Montreal with his wife and two children.⁸⁵ Dr. Ewen Cameron (1901–1967), director of the Department of Psychiatry at McGill University, sent Peter G. Edgell (1918–2001), a young psychiatrist, to the UK as a scout and ambassador so that he could learn psychosomatic medicine with Wittkower.⁸⁶ Through these earlier contacts, Wittkower was eventually hired by McGill University's Allan Memorial Institute, where he organized the domain of transcultural psychiatry, edited the *Transcultural Psychiatric Research Review*, and helped in founding the *International College of Psychosomatic Medicine*. In Canada, after a suggestion from Cameron, he also continued with clinical research projects related to social questions of "war neurosis,"⁸⁷ overseen by the Canadian Defence Research Board after the war.

Third Case Study: Karl Theodor Neubuerger

The last case example in this article reflects on the forced migration of neuropathologist Karl Theodor Neubuerger (1890–1972) from Munich, a figure who tried to merge clinical insights derived from his patients with the latest neuropsychiatric and neuropathological research throughout his career. He was the son of the sanitary inspector Otto Neubuerger (1864–1913) and his wife Henriette (1869–1914). He attended grammar school in Frankfurt before commencing studies at the University of Freiburg im Breisgau. Neubuerger's neuropsychiatric and neuropathological training was quite comprehensive. His dissertation, "*New Views on the Emergence of Psychic Hallucinations*," for instance, was written and defended in 1914 under the supervision of the prominent psychiatrist Alfred Hoche (1865–1943), an influential leader in psychiatry yet also a notorious eugenicist and racial anthropologist.⁸⁸ When the First World War broke out, Neubuerger served in a field hospital of the German army in France and received the Iron

⁸⁵ Emmanuel Delille, "Eric Wittkower and the Foundation of Montréal's Transcultural Psychiatry Research Unit after World War II," in: *History of Psychiatry* 29, 3 (2018): pp. 282–96; <https://journals.sagepub.com/doi/abs/10.1177/0957154X18765417>.

⁸⁶ Theodore I. Sourkes and Gilbert Pinard, *Building on a Proud Past: 50 Years of Psychiatry at McGill* (Montreal: McGill University, Douglas Hospital, 1995), pp. 171–173.

⁸⁷ LAC, Ottawa, ON (National Research Council Fonds), RG24, box: 30 vol. 4128: file 11-29: Department of National Defence – Aviation Medicine & Stress.

⁸⁸ Frank W. Stahnisch, "Karl T. Neubuerger (1890–1972)," in: *Journal of Neurology* 265, 6 (2018), pp. 1493–1495; <https://link.springer.com/article/10.1007/s00415-017-8703-9>.

Cross, later writing extensively on his scientific experiences as a military physician.⁸⁹ After demobilization, he resumed postgraduate training at the German Research Institute for Psychiatry and married Katharina Wisbaum (1895–1972) in 1925, converting at that time from Judaism to Roman Catholicism. During the First World War, Neubuerger served in the German Imperial Army and received the Iron Cross while also writing about his scientific experiences.⁹⁰ After demobilization, he resumed postgraduate training in neuropathology at the German Research Institute for Psychiatry in Munich, which was a flagship research centre in the Kaiser Wilhelm Society and a world-leading research institution in the contemporary brain sciences.⁹¹ In 1926, he assumed the directorship of the local pathology office at the Eglfing-Haar asylum, collaborating closely with the Institute. At this research centre, he was made an adjunct professor in 1931 and became a scientific member of the German Kaiser Wilhelm Society, a development that highlights the essential role that pathology played in contemporary psychiatry. Dr. Karl T. Neubuerger's experiences with the network of Munich institutions had formed an excellent training environment for contemporary brain researchers.

⁸⁹ The Main State Archive of Bavaria (Bay HSta). Ministry of Culture and Science. Collection MK 17/I, Rep. 694015, No. Neubuerger, pp. 1–11.

⁹⁰ Karl T. Neubuerger, "Akute Ammonshornveraenderungen nach frischen Hirnschussverletzungen," in: *Krankheitsforschung* 7, no. 2 (1928): 219–236.

⁹¹ Frank W. Stahnisch, *A New Field in Mind: A History of Interdisciplinarity in the Early Brain Sciences* (Montreal: McGill-Queen's University Press, 2020), pp. 193–197.

Figure 4. Portrait Photograph of Major (Ret.) Dr. Karl T. Neubuerger (ca. 1955). (Image courtesy of the Historical Archives of the Max Planck Institute for Psychiatry, Munich, Germany).



In March 1933, however, a month before the imposition of the *Law for the Restoration of a Professional Civil Service*, the Kaiser Wilhelm Society, in conjunction with the government of Upper Bavaria, prohibited Neubuerger from working in his role of professor due to his “Jewish family background.”⁹² In 1938, when anti-Semitic sentiments in Nazi Germany became more widespread, Neubuerger fled with his family of three children – Maria (1926–1994), Henriette (1927–1969), and Otto Jr. (1929–2009) – to Denver, Colorado. Following a period as a Rockefeller-funded research fellow, he was offered a pathology professorship at the University of Colorado when the war ended.⁹³

⁹² Jeff Minckler, “In Memoriam: Karl T. Neubuerger, M.D. (1890–1972),” in: *Journal of Neuropathology & Experimental Neurology* 31, 4 (1972), pp. 559–61; <https://academic.oup.com/jnen/article-abstract/31/4/559/2612672?redirectedFrom=fulltext>.

⁹³ Rockefeller Foundation Collection, MS German Displaced Scholars 1935–36, Rockefeller Archive Centre, Sleepy Hollow, NY, Rockefeller Foundation Archives, KG 6.1, series 1.1, box 4, folder 46, pp. 43–46.

Throughout the 1940s, while being associated with the US Third Infantry Division in the rank of major, Karl T. Neubuerger had assembled neuropathological specimens and data related to war injuries and invalidity, which he published in an edited collection in 1944. He oversaw this project together with the prominent military pathologist Captain Webb Haymaker (1902–1984) from the Surgeon General’s Office in Bethesda, MD: *Atlas of Neuropathology by the Army Medical Museum (U.S.)*.⁹⁴ Dr. Neubuerger was clinically relicensed in 1947, and a few years later, he was even elected head of the department. Having become an adjunct pathologist with the Rose Hospital in the vicinity of Denver’s Medical School, Neubuerger emerged as a well-respected leader in creating a neuropathology research group in Colorado and playing a founding role with the American Association of Neuropathologists.⁹⁵ His contributions – frequently under the sponsorship of the United States Air Force – to an array of research topics, ranging from gunshot wounds to brain concussion, the degenerative effects in epilepsy, and neurooncology,⁹⁶ were scientifically recognized through a distinguished medical service award (1967), as well as through the Golden Kraepelin Medal of the MPI; for the latter, he was invited to travel to Germany (1966). Though Neubuerger returned to Munich – “without any remorse,” as his former neuropathology colleague Gerd Peters (1906–1987) wrote in a eulogy – to give his prize lecture and receive the medal at the Max Planck Institute for Psychiatry, the event was a rather ambivalent one, as such visits were for many other émigrés who travelled back to their home countries.⁹⁷ He confronted the pushback of the German government and scientific institutions, such as the Max Planck Society and the Ludwig Maximilians University, on the matter of recompensation for his lost academic position three decades earlier. Historians have recently investigated how

⁹⁴ Karl T. Neubuerger, Webb W. Hurteau, and Webb Haymaker (eds.), *Atlas of Neuropathology – Prepared at the Army Medical Museum Office of the Surgeon General* (Bethesda, MD: Army Medical Museum, 1944).

⁹⁵ Juergen Peiffer, *Hirnforschung in Deutschland 1849 bis 1974: Briefe zur Entwicklung von Psychiatrie und Neurowissenschaften sowie zum Einfluss des politischen Umfeldes auf Wissenschaftler* (Berlin: Springer, 2004), p. 112.

⁹⁶ Karl T. Neubuerger, *Atlas of Histologic Diagnosis in Surgical Pathology: With a Section on Exfoliative Cytology* (Baltimore, MD: Williams & Wilkins Company, 1951); John Denst, Theodore W. Richley, and Karl T. Neubuerger, “Diffuse Traumatic Degeneration of the Cerebral Gray Matter,” in: *Journal of Neuropathology and Experimental Neurology* 17, 3 (1958), pp. 450–460; <https://academic.oup.com/jnen/article/17/3/450/1823346>.

⁹⁷ Gerd Peters, “In Memoriam. Karl Th. Neubuerger (1890–1972),” in: *Verhandlungen der Deutschen Gesellschaft fuer Pathologie* 57, no. 5 (1973): 478–9; esp. 479 (author’s transl.).

the Max Planck Society sought to reintegrate refugee scholars in the fledgling Federal Republic of Germany after the war, even as the founders of the national institution for the advancement of science had openly expressed their wish to continue with the previous Kaiser Wilhelm Society tradition.⁹⁸ Accordingly, the MPI attempted to restore its reputation by contacting scientists abroad, but this gesture often led to open confrontations with the émigrés who vividly recalled the humiliating circumstances of their dismissal.⁹⁹ Given that the Max Planck Society was a publicly financed organization, many of the refugee academics in North America approached it and demanded reparations for the loss of their previous careers in Germany. Efforts to resolve these conflicts were, however, seldom satisfactory as they resulted in protracted application processes, insurmountable administrative barriers, and very often conflicts about the jurisdiction of German authorities. In Neubuerger's case, the ministry of state announced in its decision letter in 1955 to the Bavarian Department of Compensation in Munich that his claim had simply "expired."¹⁰⁰

Discussion

From the perspective of Holocaust and exile studies, this article has sought to answer important questions about how refugee physicians and scientists understood their participation in the Allied war effort in connection with the defence of the persecuted Jews and oppositional groups in Nazi and Fascist Europe. This relationship of a double threat – as academic refugees and for many as being Jewish – was often turned into positive contributions as well as the mobilization of prior experiences, skills, and enormous resilience during and after the Second World War. Despite the devastating results of vast military conflict and the human catastrophe of the Holocaust, these refugee physicians and scientists also experienced making a positive wartime and civilian

⁹⁸ Stahnisch, "Neuroscience Research in the Max Planck Society and a Broken Relationship to the Past," pp. 108-110.

⁹⁹ Reinhard Ruerup, *Schicksale und Karrieren: Gedenkbuch fuer die von den Nationalsozialisten aus der Kaiser-Wilhelm-Gesellschaft vertriebenen Forscherinnen und Forscher* (Goettingen, Germany: Wallstein Verlag, 2008), pp. 331-351.

¹⁰⁰ Schmalz Dr., (1955) Ministerial Advisor in the Ministry of State for Education and Culture, Letter (copy) to the Bavarian Department of Compensation (15 October 1955, in carbon copy to the German Research Institute for Psychiatry). Munich, Bavarian General State Archive, MK 71247, p. 3 (author's transl.).

contribution in wide areas of military research, public health activities, medical education, and health care initiatives that gave them an acknowledged place and central standing in the Allied forces, which they could later transfer into Canadian and American society and the medical and scientific community.

The fate of the émigré German-trained neurologists and psychiatrists explored in this article certainly forms only a subset of a much larger group of approximately 500,000 Jewish and oppositional refugees who fled Germany between 1933 and 1945,¹⁰¹ while the number of displaced persons from Central Europe reached a staggering eight million immediately after the war.¹⁰² Yet when put into a wider perspective, not only did the 400 scientists and physicians of this group represent about two thirds of the respective scientific community in the United States and Canada at this time, but the amount of those who served directly in the Armed Forces in North America or previously in Britain was astonishingly high, comprising 10percent of the entire group, and this is especially the case when one takes into account their traumatic forced migration experiences, career challenges, and personal plight.¹⁰³

When looking at their collective biographies before the Nazis' rise to power and before their forced migration to North America, it is striking to see that many of the émigré neurologists and psychiatrists from Central Europe already possessed prior military experiences through serving in the German and Austro-Hungarian Imperial Armies during the First World War, including in the artillery, infantry, navy, medical, intelligence, and also flying corps. Some of these figures, like Dr. Karl T. Neubuerger, even received high-level military decorations, medals, and awards for their services in the forces of their home countries.¹⁰⁴

¹⁰¹ Cilly Kugelmann and Juergen Reiche, "Nordamerika," in: *Heimat und Exil. Emigration der deutschen Juden nach 1933*, edited by Stiftung Juedisches Museum Berlin und Stiftung Haus der Geschichte der Bundesrepublik Deutschland (Berlin, Germany: Juedischer Verlag im Suhrkamp Verlag, 2006), pp. 177–80.

¹⁰² Leonard Dinnerstein, "The U.S. Army and the Jews: Policies Toward the Displaced Persons after World War II," in: *The End of the Nazi Holocaust*, edited by Michael R. Marrus, pp. 512–25 (Munich, Germany: K.G. Saur, 1989).

¹⁰³ Shula Marks, Paul Weindling, and Laura Wintour (eds.), *In Defence of Learning: The Plight, Persecution, and Placement of Academic Refugees 1933–1980s* (Oxford: Oxford University Press, 2011).

¹⁰⁴ This tradition of patriotism and pride as citizens had followed the tolerance edicts in the Austro-Hungarian Empire from 1781, and the assimilation regulations in Imperial Germany from the 1870s onward, which had granted Jewish members of society full rights as citizens and had sought to eliminate all discrimination laws in

On the whole, émigré neurologists and psychiatrists also had to overcome many challenges in the pre-existing clinical and research settings in their new host countries, including problems of medical relicensing as well as academic recognition problems *vis-à-vis* their previous certificates and diplomas.¹⁰⁵ In addition, they faced an administrative reluctance, particularly concerning those who had been interned as “Enemy Aliens” in the UK and Canada between 1940 and 1942/3, to be assessed for and accepted into military service duties.¹⁰⁶ Yet, despite such initial challenges during the first years of their forced migration to North America, often prolonged because of their onward migration from Britain and elsewhere, for many in this group of émigré physicians and brain scientists, they held what Bessner has usefully described as the enabling context of the Second World War:

[P]lenty of demobilized Jewish medical personnel credit their years of battlefield experience with accelerating their post-war careers, as was the case with the Winnipeg dentist Jack Ludwig [1923–2018]. After patching up the faces of so many wounded servicemen, Ludwig took a further medical degree in England and came home to practice as a dental surgeon [and professor at the University of Manitoba].¹⁰⁷

In the main, the history of émigré neurologists and psychiatrists in the Allied war effort was a story of ups and downs – of major personal challenges and of making do in the military and scientific communities in Canada and the US – of insights received from American and Canadian acquaintances regarding existing scientific and defence-related networks and of the actual integration of émigrés into military medicine and defence-related research programs on the western side of the Atlantic. As this article has demonstrated, such service roles and defence-related research activities often stemmed from pre-war institutional acquaintances and ongoing personal mentorship relationships

existence from before the 18th century in Central Europe. See: Peter C. Appelbaum, “Jews in the Armies of Austro-Hungary before the Great War: A Comparative Framework,” in: *Habsburg Sons: Jews in the Austro-Hungarian Army, 1788–1918*, edited by Insa Kummer, pp. 24-48 (Newton, MA: Academic Studies Press, 2016); Timothy L. Grady, *A Deadly Legacy: German Jews and the Great War* (New Haven, CT: Yale University Press, 2017), pp. 7-24.

¹⁰⁵ Stahnisch, *Great Minds in Despair*, pp. 128-160.

¹⁰⁶ Igersheimer, *Blatant Injustice*, pp. 205-210.

¹⁰⁷ Bessner, *Double Threat*, p. 218.

as existed between the Surgeon General's Office in the US with German émigré neuropathologist Karl T. Neubuerger, a former scientific member of the German Research Institute for Psychiatry in Munich, and the example of Captain Webb Haymaker who frequently visited brain science-related Kaiser Wilhelm Institutes in Germany in the 1920s and 1930s.¹⁰⁸ During the final years of the war and in the early postwar period, both these neuropathologists sifted through the published journal articles, textbooks, and extensive archival evidence to publish their findings on war-related gunshot wounds of the central and peripheral nervous system, scar tissue of the brain, the neuropathology of trauma-related sensory loss and impairment, as well as persisting seizure and paralysis symptoms in war veterans suffering from mechanical, chemical, or biological injuries sustained during their service.¹⁰⁹ Even though Neubuerger and Haymaker's *Atlas of Neuropathology* for the Army Medical Museum only appeared at the end of the Second World War, it did open additional doors for émigré neuropathologist Neubuerger to continue defence-related research projects. Moreover, the *Atlas of Neuropathology* experienced recurring interest during later conflicts in which the US Armed Forces got involved, such as the Korean War (1950–1953) and the Vietnam War (1955–1973).¹¹⁰

As emerges from the fate and the accomplishments of many émigré physicians and scientists in the case examples, besides the qualitative as well as quantitative historical material examined in this article, the spectrum of the war experiences of German-trained émigré neurologists and psychiatrists in the Allied war effort was arduous. Part of what Bessner highlighted in *Double Threat* points also to the ensuing

¹⁰⁸ Stahnisch, "Neuroscience Research in the Max Planck Society and a Broken Relationship to the Past," pp. 104-113.

¹⁰⁹ Their research extended to reviewing and examining the military medical research of the Axis Powers as is evidenced in Haymaker's publications: Nathan Malamud, Webb Haymaker, R. Philip Custer, "Heat Stroke: A Clinico-Pathologic Study of 125 Fatal Cases," in *Military Medicine* 99, 5 (1946), pp. 397-449; <https://academic.oup.com/milmed/article-abstract/99/5/397/4947175?redirectedFrom=fulltext>; Webb Haymaker and Austin D. Johnston, "Pathology of Decompression Sickness: A Comparison of the Lesions in Airmen with those in Caisson Workers and Divers," in: *Military Medicine* 117, 3 (1955), pp. 285-306; <https://academic.oup.com/milmed/article-abstract/117/3/285/4932928>.

¹¹⁰ Robert S. Henry, *The Armed Forces Institute of Pathology – Its First Century, 1861–1962* (Washington, D.C.: Office of the Surgeon General, Department of the Army, 1964), p. 2; <https://apps.dtic.mil/sti/tr/pdf/ADA304669.pdf>; Douglas Lanska, "Historical Perspective: Neurological Advances from Studies of War Injuries and Illnesses," in: *Annals of Neurology* 66, 4 (2009), pp. 444-459; esp. pp. 501-502; <https://onlinelibrary.wiley.com/doi/10.1002/ana.21822>.

legacy that the forced migrants in neurology and psychiatry had left behind as they fled Nazism and Fascism in Europe. Their service and their contributions to the Allied war effort often marked only the initiation of a process that led to more social acceptance and anti-discrimination measures in their new host countries:

When the Canadian [Jewish] veterans returned home after the war, they came back to a country that had been profoundly affected by the conflict. Over a million Canadians had put on a uniform and countless others had worked in vital industries. Many women had become accustomed to working in roles only men had previously held. Yet not everything had changed, including the widespread and systemic discrimination against Jews and other racial minorities. Restrictions were still in place in many provinces regarding land ownership, and access to some professions and to university training was still limited. This discovery came as a bitter disappointment to some Canadian Jewish veterans. It would take a few years before lobbying by the Jewish community, and by the wider human rights and labour union spheres, would move governments at many levels to bring in anti-discrimination legislation.¹¹¹

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¹¹¹ Bessner, *Double Threat*, p. 227.