Forced Migration of Displaced Scholars in the 20th Century and Its Impact in the Circulation of Knowledge and Ideas¹

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Abstract

This review article is an analysis of forced migration of the displaced scholars and scientists from European universities that arrived in Britain in some periods of the twentieth century, especially during the First and the Second World Wars, and the inter and post-war years; presenting in the final part of this paper, in some detail, how in the contemporary period, the pattern of the academic migration to Britain has changed.

Key words: forced migration, displaced scholars, Britain, contemporary period, inter and post-war years

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Migración Forzada de Académicos Desplazados en el Siglo XX y su Impacto en la Circulación de Conocimientos e Ideas⁴

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Resumen

Este artículo de revisión, es un análisis de la migración forzada de los académicos y científicos desplazados de las universidades europeas que llegaron a Gran Bretaña en algunos períodos del siglo XX, especialmente durante la Primera y la Segunda Guerra Mundial, y los años de entre y posguerra; presentando en la parte final de este artículo, con cierto detalle, cómo en el período contemporáneo ha cambiado el patrón de la migración académica a Gran Bretaña.

Palabras clave: migración forzada, académicos desplazados, Gran Bretaña, periodo contemporáneo, años de entre y posguerra

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Migração Forçada de Acadêmicos Deslocados no Século XX e seu Impacto na Circulação de Conhecimentos e Ideias⁷.

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Resumo

Este artigo de revisão é uma análise da migração forçada de estudiosos e cientistas deslocados de universidades européias que chegaram à Grã-Bretanha em alguns períodos do século XX, especialmente durante a Primeira e a Segunda Guerras Mundiais, e os anos entre e pós-guerras; apresentando na parte final deste artigo, com algum detalhe, como no período contemporâneo o padrão da migração acadêmica para a Grã-Bretanha mudou..

Palavras-chave: migração forçada, académicos deslocados, Grã-Bretanha, período contemporâneo, anos inter e pósguerra

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Introducción

However, in order to understand what this immigration of scientist and scholars represented to Britain, it is necessary to explain this phenomenon. According to Brandi (2006), highly qualified migrations which have always been present within the more general migratory flows and, in certain historical periods, have assumed significant importance in the circulation of knowledge and ideas. Despite being extremely important from the point of view of historical view and the spread of ideas, this perception has a very weak relationship with the current phenomenon of migration of researchers and technicians. In fact, these last are characterized by generating a strong impact on the productive system of both the country of origin and destination.

Brain drain is the term used to refer to the migration of skilled human resources in the seek for better standards of living and quality of life, higher salaries, access to advanced technology and more stable political conditions in the developed countries. This results into a loss of considerable resources when these people migrate, with the direct benefit to the recipient country who have not covered the cost of educating them. The intellectuals of any country are some of the most expensive resources because of their training in terms of material cost and time, and most importantly, because of lost opportunity (Dodani & LaPorte, 2005, Boswell, 2009).

Dodani & LaPorte (2005), indicate that the moving of highly skilled work force is encouraged by the rise of knowledge economies in Europe, the United States, Canada, Japan and, more recently, India and China who seek to attract talent from anywhere in the world in order to increase technological innovations, the production of patents and profits.

Things have changed over the years, as Sieglin & Zuñiga, (2009) referred in their research study, there is another reason why highly educated are migrating to developed countries. They found that due to the internationalization of higher education the number of students who study one or two terms in foreign universities has increased in the last years. During those stays they receive access to high technology and get familiarized with advanced research and with the job opportunities offered by this technology. This experience achieves for those students an in-depth critical analysis of their future professional development and generates in them the wish to move abroad after finishing higher education.

All of the above is decisive to understand the different periods and factors that have contributed to the immigration of scientists and academics to Great Britain, bringing with them the scientific and technological development of the country, being determinant for the improvement of the economy, the quality of life, and social development.

Historical migration of scientists and scholars to Britain

The largest forced movements of population were in Europe and in the Middle East and followed both world wars. The refugee phenomenon has been largely identified with the twentieth century, and until the 1950s it was European in origin (Hirschfeld, 1984). Europeans had just managed to settle the refugees from the First World War when they had to strive with a new mobility, of

refugees. However, the Nazi dismissal had no comparable scale to any other migration in the past (Bentwich, 2012).

In 1933, Hitler came to power as Chancellor of the German Reich, and he proceeded to carry through the National Socialist Revolution which aimed at a totalitarian racial state. No person who was not of Aryan race or who held political opinions different from the National Socialist Party could hold public office (Bentwich, 2012). Jews, non-Aryans and political opponents were persecuted; and by September 1939 two thirds of the 700,000 Jewish population migrated from Germany and Austria (Adams, 1968). This migration unlike the ones following the Russian persecution of 1881-1905 or the Fascist Revolution in Italy, included a large number of men and women highly trained and skilled, learners, members of the learned professions (theology, law and medicine), university teachers and research workers (Adams, 1968).

The universities and research institutes in Germany were for the most part, state bodies which professors, lecturers and research workers were state officials subject to the purge decrees (Bentwich, 2012). For the Nazi mind, it was intolerable that Jewish who were only one percent of the German population occupied one eighth of the professional chairs in the German universities, and had won the twenty-five percent of all the Nobel Prizes awarded to Germans (Bentwich, 2012). In addition, it was outrageous for the Nazis that German universities had involved a number of Jewish scholars and scientists from the countries of Central and Eastern Europe.

According to Bentwich (2012), Professor Planck, the Nobel Prize Awarded physics, and the President of the Kaiser Wilhelm Society for the Advancement of Science, personally requested Hitler to stop the dismissal of scientists on racial and political grounds, emphasising the relevance of the physical sciences for the welfare of Germany, to which Hitler replied "Our national policies will not be revoked or modified, even for scientists. If the dismissal of Jewish scientists mean the annihilation of contemporary German science, we shall do without science for a few years". The academic society of Germany offered little resistance, and some scientists that opposed were dismissed such as the Nobel Prize awarded physics Max von Laue. The displaced scholars needed to leave Germany to look after their futures (Pustelnikovaite, 2021)

In 1933 and 1934, six hundred and fifty scholars emigrated from Germany, included six Nobel Prize winners, scientists of international reputation, professors of every discipline, a large number of lecturers and assistants. The most prominent of all these scientists, Professor Albert Einstein, was one of the first forced to leave his country. He meant a double offense for the Nazis, he was a Jew and his Theory of Relativity was opposed to the "Aryan' physics, "the physics of the Nordic Species of Man" (Bentwich, 2012).

The academic society in other nations united and felt the call to action after the Nazis announced their intention to ban Jewish and other peoples from the public life (Cox, 2021). In every country of Western Europe, in Czechoslovakia and Turkey, in North America and the British Commonwealth, not only protests went up, but also practical measures of rescue (Bentwich, 2012). The principle was that scholars and scientists formed a world society of brotherhood, which should share knowledge regardless of race and religion, and that the learning and science of those displaced was not the property of any nation to use or to

discard, but belonged to all mankind (Bentwich, 2012). This article is concerned only with the migration of the displaced scholars and scientists that found refuge in Britain and limited only to British work in this particular affair. To this regard, a key figure in the beginning of this academic assistance was Sir William (later Lord) Beveridge (Adams, 1968) who organized the Academic Assistance Council, AAC, a quick response to the Nazi regime. Alongside a notable woman, Tess Simpson, the superb Hungarian physics, Leo Szilard, the Nobel Laureate A. V. Hill, and Walter Adams, future LSE, London School of Economics, Director, the then LSE Director William Beveridge played the central role in turning the AAC into an effective organization able to help those German scholars betrayed by their own universities (Cox, 2021) and that together they formed part of what one writer has called "the most remarkable physical movement in the intellectual world since the migration of Greek scholars following the Byzantine Empire in the 15th century (Bentwich, 1953 p. 10).

When Beveridge in 1933 learned about the horror his fellow academics in Germany were living, he urged himself and Szilard to "create a refugee settlement committee in England" to rescue the displaced scholars. He used his reputation and his prestige within the academics of the world, and together with Szilard gathered people who were willing to rescue, help and re-establish hundreds of the most prominent endangered scholars (Cohen, 2021).

According to Bramwell (1988), during the first years of the German migration, Britain was not the preferred destination. Restrictive regulations on immigrations and the fear of an inevitable increase of unemployment, made the British government refuse to accept a large number of German refugees from political and racial grounds. However, soon after the outbreak of war, there were 55,000 officially recognized refugees from Germany, Austria and the Sudetenland in Britain. At this point, two social groups had been excluded from these restrictions on asylum because the British government found them beneficial for the country.

The first group included wealthy industrials and businessman that could contribute to create new employment opportunities. And the second group comprised well-known artists and scholars that will secure prominent Jews who had achieved distinction in pure science, applied science for the country not only to obtain advantage of their knowledge and experience, but also to generate a favourable impression of Britain in the world. It was the AAC the most important relief organization for refugee scholars. The AAC was created to be an emergent organization to help displaced scholars. However, after the passing of the Nuremburg Laws, in 1935, it became apparent that there was a need for a permanent group to help scholar victims of political and religious persecutions (Rall, 2017). The AAC was later re-named as the Society for the Protection of Science and Learning, SPSL. The change in its name had the purpose of refraining from political controversy, and as the SPSL it became very strong in promoting the cause of academic freedom by openly criticizing the Nazi and fascist regimes (Rall, 2017).

The total number of refugee scholars registered with the SPLS was 1400 scholars expelled from Germany, 418 from Austria, 140 from Italy, 60 from Spain, and from 1936, Soviet scholars. It is relevant to mention that when the problems of the Society for the Protection of Science and Learning increased in 1938, the United Stated of America became the host for German-speaking academic refugees for their greater ability to accept them in the country (Bramwell, 1988).

Relevant scholar refugees that found shelter in Britain universities

During the 20th century, the world witnessed the most substantial and extensive population movement. This period was described as the "century of refugees" or "the century of displaced persons" (Donau, 1999). The journeys of all the displaced scientists and scholars is essential to understanding how contemporary Britain came to be.

Beveridge, Hill and Simpson, were at the centre of activities of the AAC and SPLS that created a network of support gathering people who were willing to rescue and help to re-establish hundreds of the most prominent scholars that were in danger (Cohen, 2021). Simpson, Tess as she was known, devoted totally to helping scholar refugees. She became the trusted human contact for the refugee scholars. The two immediate practical tasks of the organization were firstly to form a registry of the displaced scholars and secondly, to collect information concerning openings in all countries for their use (Rall, 2017).

The AAC had an Allocation Committee, which included Hill, and established groups of experts to evaluate of the German referees in different disciplines. The aim of this committees was to determine whether the refugee was likely to be allocated in academic work not only in Britain (Ibid.). For the SPLS, it was not always easy to find support among Britons, since they perceived the foreign scholars will take jobs from the British scholars. To illustrate this, The British Medical Association was reluctant to support displaced physicians.

Hill inspired other scientists with his work at the AAC. This was the case of Bernard Katz, a Jew of Polish descent, who did all that was needed to go and work with Hill in Britain. Katz won the Nobel Prize in Physiology in 1970. For other scholars, their stay in Britain was not permanent, as stated by Bramwell (1988). As stated earlier in this document, the United States had at the time relatively more favourable immigration conditions for the academics, better employment and education opportunities.

Another factor that made America attractive to them was the feeling of security far from the Nazi regime. Other reason for this re-migration was the fact that the USA has been a country of immigrants from the beginning and scholars felt much comfortable within their society, such was the case of the political scientist Franz L. Neuman, who left the LSE and moved to the University of Columbia in New York. Despite the different motives scholars had to re-migrate, the major decision was that refugees needed to make their living and look after their professional development. This was the case of humanities scholars and social scientists who found themselves unable to establish in Britain.

Whether they stayed long or short in Britain, natural scientists had an extraordinary long-term impact in British universities. In the 1950s, the art historians Leopold D. Ettlinger, Nikolaus Pevsner and Ernst Hans Gombrich contributed significantly to the establishment of art history as a subject equal to the other historical disciplines in Britain (Bramwell, 1988). Other world-class professors displaced, friends with Gombrich, that settled in Britain were Max Born, Hannah Arendt, Karl Mannheim, Theodor Adorno, Isaiah Berlin, Friedrich von Hayek, Austrian economist, Karl Popper, Austrian-British philosopher of science, Ludwig Wittgenstein, Austrian-British philosopher, and Sigmund Freud, Austrian neurologist and founder of the psychoanalyst (Feichtinger, 2001).

In the end, Hill transformed the AAC from a charity organization to help displaced refugees, into the SPLS, a body standing for the fundamental principles of all academic and research work. According to Cooper (1992), the cultural impact of the refugees was enormous. In 1983, Simpson generated a list of refugee scholars. Among others, there were the names of 16 Nobel Laureates, 80 fellows of the Royal Society, and 34 fellows of the British Academy. However, according to Adams (1968) by 1945 the number of scholars that the SPLS was able to rescue and help to re-establish was of 2541 academics, half of them with permanent positions: 612 stayed in Britain, 624 travelled onward to the United States, 80 scholars took positions in Latin America, 74 went to universities within the Commonwealth, 66 scholars emigrated to Palestine, and 62 scientists found jobs in Turkey and the Middle East.

All of them contributed to the store of knowledge, culture and learning in Britain and elsewhere as shown in this quote from Max Perutz, who received the 1962 Nobel Prize together with John Kendrew for their work on hemoglobin, and wrote "...the gain was mine. Had I stayed in my native Austria, even if there had been no Hitler, I could never have solved the problem of protein structure...We all [the exiled scientists] owe tremendous debt to Britain" (Medawar & Pyke, 2001 p. 11).

Contemporary Patterns of Academic Mobility

The period between the First and the Second World Wars followed a specific pattern of academic mobility with German and Austrian scientists, and scholars most migrating to Britain and the United States escaping the Nazi persecution. In general terms, academic mobility has been conditioned and constrained by the regional and international political and economic relations of power and by the work of non-government institutions such as foundation in given times. According to Kim (2009) in the contemporary period of globalization, the scale and speed of cross-border academic mobility has witnessed a shift of patterns.

During the inter-war periods, private philanthropy and the university interlaced the patterns of academic mobility and research. Academics in the fields from mathematics, physics, medicine, biology, biochemistry, bacteriology to agricultural studies that were traveling back and forth the Atlantic and many of them supported by the Rockefeller Foundation and the Education Board (Siegmund-Schultze 2001). During this period, the United Stated benefitted from the "brain drain" in Europe after the Fascism. This influx of world-class scholars and their participation in American research teams had a crucial role in the advancement of knowledge (Zimmerman, 2006).

After the Second World War, the migration changed due to the political geography marked by the end of the British Empire and the rise of America. This new state of political order formed a bipolar division of international relations between the Soviet Union and the United States within the era of the Cold War. As said by Charles Gati, Professor of European Studies at the Johns Hopkins University by 1956, the new set of the major events of the extreme politics such as the Fascism, Democracy and Communism that took place in the second half of the 20th century had a tremendous impact and the brain drain was terrific.

The term "brain drain" was coined by the British Royal Society in its report called "Emigration of Scientists from the United Kingdom" (Royal Society, 1963) to address the outflow of scientists and highly

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specialised technicians from the United Kingdom to the United States and Canada. The report mentioned that each year from the total number of science and engineering PhDs awarded in the UK, 12% were lost abroad and 7% migrated permanently to the US.

Since 1990, the academic mobility has been increased by new recruitment policy strategies and the liberalisation of trade politics by many countries such as the UK, the USA, France, Australia, Canada and Germany (Kim, 2009). In the UK, the change in local domestic regulations has favoured this flow of academic mobility; causing more foreign international staff allowed and a low proportion of permanent staff.

These changes have created greater job insecurity and market opportunity which has resulted in short-term contract-based employment; and professors negotiate their salaries individually instead of following standarised national scales. Two other factors have also greatly impacted academic mobility, university leadership that is often recruited from abroad or among corporate managers, and the research funding which is more available in the US than in the transnational space of European higher education (Kim, 2009).

Due to the changes in European higher education, researchers form European countries have come to the UK to start their careers and establish their reputation. As a consequence, the UK has reinforced her policy of internationalisation of higher education with their scheme of Post Study Work, which will permit international students to stay and work after graduation (http://www.ukba.home office.gov.uk/workingintheuk/tierl/poststu).

The current pattern of academic mobility is completely different form the past. According to Kim (2009), and more recently Khan (2021), the phenomenon of academic mobility has contemporarily shifted to a new pattern, the brain drain and the brain gain primarily. However, other factors also have taken place in this change of patterns. These are, neoliberal market principles, globalization of corporate university governance and management, and of course, personal choices and professional networks.

Conclusion

Historical, political and social events have set the standard in the migration of people around the world within which have been highly qualified human resources. In the past, migration was mainly for political and social reasons and although similar circumstances occur today, the professional development opportunities offered by the host countries are also added to them.

Forced mobility during the first and second world wars and the creation of the Academic Assistance Council (AAC) later re-named as the Society for the Protection of Science and Learning (SPSL) helped to the migration of scientists and academics to Britain. Although restrictive regulations on immigrations and the fear of increase of unemployment, made the British government refuse to accept a large number of refugees. Those who could contribute to create new employment opportunities and well-known artists and scholars who would generate a favourable impression of Britain in the world were excluded from those regulations having a big cultural impact in the country.

The United States took advantage and they became the host for German-speaking academic refugees for their greater ability to accept them in the country.

During the inter-war periods, private philanthropy and the university interlaced the patterns of academic mobility and research.

The United Stated has had relatively more favourable immigration conditions for the academics, better employment and education opportunities. Two other factors have also greatly impacted academic mobility, university leadership that is often recruited from abroad or among corporate managers, and the research funding which is more available in the US than in the transnational space of European higher education, and as mentioned before, the phenomenon of academic mobility has contemporarily shifted to a new pattern, the brain drain and the brain gain. Researches, scholars, and scientists who moved to different countries seeking for better opportunities represent a brain drain to their countries but a brain gain to the host countries and even to themselves, for which they have the opportunity to develop science for their own benefit and for human kind.

Sources cited

- Adams, W. (1968). The refugee scholars of the 1930s. The political quarterly, 39(1), 7-14.
- Bentwich, N. (2012). The rescue and achievement of refugee scholars: The story of displaced scholars and scientists 1933–1952 (Vol. 1). Springer Science & Business Media.
- Boswell, C. (2009). The political uses of expert knowledge: Immigration policy and social research. Cambridge University Press.
- Bramwell, A.C. (1988). Refugees in the Age of Total War. Routledge.
- Brandi, M. C., (2006). La historia del brain drain. Revista Iberoamericana de Ciencia, Tecnología y Sociedad CTS, 3(7),65-85.[fecha de Consulta 23 de Noviembre de 2022]. ISSN: 1668-0030. https://www.redalyc.org/articulo.oa?id=92430705
- Cohen, S. (2021). Challenging the injustice of wartime internment: the collaboration between Eleanor Rathbone and Esther Simpson, 1940–1942. Jewish Historical Studies, pp. 56-69.
- Cooper, R. (1992). Refugee Scholars: Conversation with Tess Simpson. Leeds, UK: Moorland.
- Cox, M. (2021). "His finest hour": William Beveridge and the Academic Assistance Council. LE
- Dodani, S., & LaPorte, R. E. (2005). Brain drain from developing countries: How can brain drain be converted into wisdom gain? Journal of the Royal Society of Medicine, 98(11), 487–491. https://doi.org/10.1177/014107680509801107
- Donau. D. (1999). ["Migrations in the 20 th century and their consequences ways forward for history lessons within a European context"]. European Seminar for Educational Staff
- Feichtinger, J. (2001). Wissenschaft zwischen den Kulturen: Osterreichische Hochschullehrer in der Emigration 1933-1945. Frankfurt and New York: Campus pp. 32-38.

- Hirschfeld, G. (Ed.). (1984). Exile in Great Britain: Refugees from Hitler's Germany. Berg Publishers.
- Kim, T. (2009). Shifting patterns of transnational academic mobility: a comparative and historical approach. Comparative Education, 45(3), 387–403. http://www.jstor.org/stable/40593182
- Khan, J. (2021). European academic brain drain: A meta-synthesis. Eur J Educ. 56: 265–278.
- Kone, Z. L. (2017). Brain Drain, gain and circulation. Handbook of Globalisation and Development, 349–370. https://doi.org/10.4337/9781783478651.00029
- Medawar, J., and D. Pyke. 2001. Hitler's gift: The true story of scientists expelled by Nazi regime. New York: Arcade Publish.
- Pustelnikovaite, T. (2021). Locked out, locked in and stuck: exploring migrant academics' experiences of moving to the UK. Higher Education, 82(4), 783-797.
- Rall, J. A. (2017). Nobel Laureate AV Hill and the refugee scholars, 1933–1945. Advances in Physiology Education, 41(2), 248-259.
- Sieglin, V., & Zúñiga, M. (2010). "Brain drain" en México. Estudio de Caso sobre Expectativas de Trabajo y disposición hacia la migración laboral en estudiantes de ingeniería y ciencias naturales. Perfiles Educativos, 32(128). https://doi.org/10.22201/iisue.24486167e.2010.128.18908
- Siegmund-Schultze, R. 2001. Rockefeller and the internationalization of mathematics between the two World Wars: Documents and studies for the social history of mathematics in the 20th century. Basel and Boston: Birkhäuser Verlag. Tanaka, M. 2005.
- Zimmerman, D. (2006). The Society for the Protection of Science and Learning and the Politicization of British Science in the 1930s. Minerva, 44(1), 25-45.