

Peter Jan Knegtmans, *Geld, ijdelheid en hormonen. Ernst Laqueur (1880-1947), hoogleraar en ondernemer* (Amsterdam: Boom, 2014, 356 pp., ISBN 978 90 8953 362 3).

How Ernst Laqueur (1880-1947) survived the Second World War is truly remarkable. Of Jewish heritage, he was dismissed from his position as professor of Pharmacology at the University of Amsterdam by 1940. As a consequence, he was prohibited from continuing to supervise the research at his pharmaco-therapeutic lab. This measure was especially harsh, as the laboratory not only served Laqueur's academic research but also that of the pharmaceutical company Organon, which he had co-founded in 1923. The stakes were high, involving not only financial revenue and production but also the international competition to discover new hormones (Laqueur's area of specialization) and introduce them in medical practice.

The chapter covering the Second World War is a natural climax in Peter Jan Knegtmans' biography of Laqueur (2014). Knegtmans is clearly revisiting familiar terrain, having previously authored both a work on the history of the University of Amsterdam (UVA) and one dealing specifically with this academic institution during the Second World War. The comprehensive account of Knegtmans' expertise and the level of suspense the author maintains make the chapter particularly fascinating.

Banned from his laboratory, Laqueur worked as a physician within Amsterdam's rapidly marginalized Jewish community. His energies were increasingly consumed by the struggle to survive, as he tried to arrange for permits and to be included on lists that would give himself and his family a brief respite from deportation. His family capital bought him some time, but it was in the end a matter of luck that Laqueur and his wife were not deported. Two of his daughters and their families were less fortunate. Laqueur and his wife were devastated but did what they could by sending care packages of bread and tobacco, while they were held in Westerbork.

When reading about Knegtmans' depiction of Laqueur, the German term *Macher*, meaning 'doer' in English, comes to mind. Laqueur was not a passive bystander, as his wartime activities illustrate. Laqueur consistently aimed to maximize his professional potential. 'He had the ability to take chances and seize opportunities', Knegtmans writes. By studying medicine, he was able to establish a medical practice, ensuring the maximum freedom and respect attainable by Jews in Prussia (he was originally from Breslau – now Wrocław). Upon embarking on an academic career, 'taking chances' included specializing in the rising field of physiology. The introduction of physical-

chemical methods brought one breakthrough after another. Laqueur saw promising opportunities. He would specialize in the emerging and highly lucrative field of hormone research.

After obtaining his PhD in chemical physiology at the University of Breslau in 1905, Laqueur's search for a permanent academic position took him to Heidelberg, Halle, Königsberg, and Groningen. His willingness to accept jobs from the eastern corners of Germany to the provincial Dutch town of Groningen attests to Laqueur's flexibility. It was, however, not always clear where flexibility turned into opportunism. Laqueur did not hesitate to convert to the Protestant Reformed Church in 1906 (despite strong objections from his parents) to circumvent any potential disadvantages that Jews faced in pursuing an academic career in Germany at the time. In 1917, accepting a position at the Vlaamsche Hoogeschool, the German university in occupied Ghent, briefly placed him on the wrong side from a historical perspective.

Once he became a professor at the University of Amsterdam, Laqueur wisely chose to focus on hormones, the active substances in organic extracts. These substances started to inspire medical researchers all over the world after two Canadian scientists discovered insulin in 1921. Soon thereafter, Laqueur engaged in obsessive efforts to purify and produce insulin himself – to the extent that his children called him *Insulinvati*. Around the same time he started working with Van Zwanenberg's meat-packing company, with which he co-founded the pharmaceutical company Organon. The funding and material support that Laqueur derived from Organon enabled him to conduct research at the international vanguard. Laqueur's research group was the first to isolate the male hormone testosterone in 1935. Contributing significantly to Laqueur's international standing, this discovery probably remains the greatest source of his renown. His work during the prewar years therefore brought him the professional acknowledgement he craved for so long.

Knegtmans colors his narrative with remarkable detail throughout the book, gathering an impressive collection of personal material from the Laqueur family. In addition to correspondence and diaries of Laqueur and his wife, he obtained those of other family members, including Laqueur's mother and some of his children. Nearly every page attests to the wealth of source materials. In a few instances, the overall portrayal of Laqueur almost disappears behind a mass of details. Laqueur's brief Belgian escapade, for example, came to an end when he contracted an illness at the same time that the despised Vlaamsche Hoogeschool closed in November 1918. Given the precariousness of the situation, a short assessment of how Laqueur's position in Ghent affected him personally or his international standing would have been welcome. Instead, the author simply moves on to Laqueur's attempts to find a new position.

Most of the time, however, the solid narrative supports historical understanding of the book's subject. Knegtmans, for example, writes

extensively about Organon and Laqueur's role in its research, based on the Organon company archives and correspondence between Laqueur and the university administration. This book is an important contribution to the vastly growing literature on the history of R&D in the Netherlands. Knegtmans highlights, for example, Laqueur's recurrent struggles with the university administration to obtain approval for his collaboration with Organon. The university administration held that teaming up with corporate industry was incompatible with the task of the university. Laqueur, by contrast, had long ago adjusted the motto from the early days of his career of 'aim for the truth, no matter whether it is useful' to 'Suchet nicht nur die Wahrheit, wenn sie nützt, doch freut euch, wenn dies der Fall ist'.

In sum, *Geld, ijdelheid en hormonen. Ernst Laqueur, hoogleraar en ondernemer* is a rich and moving biography of a striking individual, whose life story coincided with one of the most exciting periods in the pharmaceutical history of the twentieth century.

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