Abstract

This paper presents a profile of Ludwik Hirszfeld (1874–1954) as an educator of medical personnel. Hirszfeld was an eminent immunologist, bacteriologist and seroanthropologist; the originator of the Polish school of immunology; a professor at Warsaw University, Maria Sklodowska-Curie University in Lublin and the University and Technical University in Wroclaw; and the founder of the Institute of Immunology and Experimental Therapy in Wroclaw. An account of his relations with university students and junior research personnel – relations based on respect, on multi-faceted assistance in everyday life, but above all on a love for science – is presented, depicting Hirszfeld as a teacher of scientific thinking.

Key words: Ludwik Hirszfeld, professor-student relations, relations with junior research personnel.

Streszczenie

Przedstawiono Ludwika Hirszfelda (1874–1954), wybitnego lekarza immunologa, bakteriologa, seroantropologa, twórcę polskiej szkoły immunologii, profesora Uniwersytetu Warszawskiego, Uniwersytetu im. Marii Skłodowskiej-Curie w Lublinie, Uniwersytetu i Politechniki we Wrocławiu, Akademii Medycznej we Wrocławiu, twórcę Instytutu Immunologii i Terapii Doświadczalnej we Wrocławiu, jako wychowawcę lekarskich kadr. Zrelacjonowano jego stosunki z młodzieżą akademicką oraz młodymi naukowcami, stosunki oparte na szacunku, wielopłaszczyźnowej pomocy w sprawach życia codziennego, a przede wszystkim na umiłowaniu nauki. Przedstawiono go jako nauczy- ciela naukowego sposobu myślenia.

Słowa kluczowe: Ludwik Hirszfeld, stosunki profesor–student–młoda kadra naukowa.

Maria Skłodowska-Curie once wrote: “In science we should not be interested in people, but in facts.” But how can one not remember the people who many a time created memorable facts? One of them was undoubtedly Ludwik Hirszfeld (1884–1954) – an eminent Polish immunologist, bacteriologist and seroanthropologist; a professor at Warsaw University, Maria Sklodowska University in Lublin, the University and Technical University in Wroclaw and Wroclaw Medical University; and the founder of the Institute of Immunology and Experimental Therapy in Wroclaw. His life and scientific activity have been the subject of a considerable number of publications.

The authors of this paper highlight the relations between Professor Hirszfeld and his students and junior researchers on the basis of archive materials in possession of the Polish Academy of Sciences in Warsaw, the Institute of Immunology and Experimental Therapy in Wroclaw and the Ossolinski National Institute in Wroclaw, as well as accounts by people who remember Professor Hirszfeld.

Ludwik Hirszfeld remembered Professor Silberschmidt, his teacher in the Department of
Hygiene in Zürich, this way: “I am indebted to him for a deeply ingrained sense of responsibility and for the understanding that the student is like a plant that needs regular tending.” “I don’t trust people who despise teaching. They are egocentrics devoid of the deepest drive: the drive to give. They can be replaced by a gramophone,” Hirszfeld declared. “Lectures should provide students not only with facts essential to practice their profession, but also with an insight into the philosophy and charm of the given field of knowledge, into how ideas are born and into the techniques of investigative creativity … Thus science can shape not only the intellect, but also sculpt the soul,” he stated [1].

Before World War II, Hirszfeld was the co-founder of the State Department of Hygiene in Warsaw, its manager, deputy director and an organizer of research. Feliks Przemyski noted that a proper climate for research, in which a young generation of researchers could grow and develop, was created in the Department. In 1924 the Free Polish University established an ad personam chair for Hirszfeld, in which he was active for seven years, giving lectures in, among other things, bacteriology and immunology. From 1926 onward, he gave commissioned lectures at the Warsaw University Faculty of Pharmacy, and shortly before the outbreak of World War II he was appointed to a Chair at this Faculty [2, 3].

In 1944, Hirszfeld was sent to Lublin, where he cofounded the Maria Sklodowska-Curie University. He headed the Department of Medical Microbiology, and also lectured on serology, immunology and pregnancy pathology. He would warmly remember the young trainee doctors exhausted by the war: “After years of wandering those children would come not only to hospitals, but also from the underground and from the concentration camps – those children would come, so hungry for knowledge, so longing for the higher forms of life, and at the same so bruised and bereaved that they not only had to be given a vision of the academic life for which they were so eager, but also had to be provided with some food and a roof over their heads”

Hirszfeld’s Lublin years were remembered by Tadeusz Pniewski from Kalisz, who at that time was an assistant at the Department of Microbiology: “My recollection of you [Professor Hirszfeld] from those days is and will forever remain for me a recollection of the quietest and safest haven, and your small room in Ogrodowa Street, at Dr Chrominski’s house, I remember as the four walls within which I could leave behind every complaint, each worry, and come out fortified and strong. God knows how grateful I am to you for those days.” However, in Lublin Hirszfeld did not find propitious conditions for his broad scientific plans [4–7].

Hirszfeld arrived in Wrocław, a totally destroyed city situated on the Odra River, on August 1st, August 1945. In the afterword to Waldemar Kozushek’s work devoted to this great scientist, it is written that the fast and effective development of the Wrocław academic community would not have been possible without the participation of outstanding Polish scientists from different fields of knowledge. Right from the start Polish science was entering Wrocław on a major scale, as if to compensate for all the losses and humiliations of the war years. Hirszfeld, who effectively combined his research with the education of young personnel, sought to form his own school of followers who would survive him [8].

In the Medical Faculty of Wrocław University and at Wrocław Technical University, Hirszfeld lectured on bacteriology, serology, immunology and pregnancy pathology. He headed Wrocław University’s Department of Medical Microbiology until 1954. Jadwiga Maress-Babczyszyn recalls that his lectures were attended not only by medical students, but also future lawyers, specialists in Polish studies and engineers – the whole academic community of Wrocław. Nobody else attracted such an audience [9].

Jerzy B. Kos, a Wrocław physician and man of letters, recalls those years: “He lectured like an inspired prophet. He steered clear of the spot behind the lectern. He would usually stand between the first rows of desks, keeping his eyes fixed on the faces of the listeners, watching for their every reaction. When talking about immunology, he would speak as a strategist commanding the operations of phagocytes and antibodies in defense of the human being. As he presented them, complicated immunity problems were like stories about eternal striving for harmony in the world, in which the human being is only one element. The Professor’s lectures in serology introduced the students to the world of his youth, his first scientific interests and discoveries. I learned not only the ideas which had led to the differentiation and naming of blood groups, but also the history of his friendship with the German serologist Gumben, the attractions of ‘the learned philosophers’ heaven’ – Heidelberg and the mountains on the Neckar River – and I also heard for the first time the story of a man who had survived the [Warsaw] Ghetto.” The lectures were delivered in impeccable Polish [9].

Even in the Warsaw Ghetto, where Hirszfeld had organized various courses during World War II, the fascinated listeners would forget about their hunger, humiliation and threat of death. For the few hours of his lectures they felt human again.
Hirszfeld declared: “The lecture should make the students dreamy, so that they do not see the grey wall of knowledge, which they have to oh-so-labouriously climb under the terror of examinations.” In Kos’s opinion: “He knew how to excite, how to fire the imagination and arouse hope. He was also generous in sharing with his closest co-workers, and with us – young trainee doctors.” “If you want to fire people’s enthusiasm, you must burn yourself,” the Professor himself would often repeat. He was exceptionally friendly towards students [9].

Grzegorz Fedorowski wrote that Hirszfeld knew his students by face and name, and often by nickname. Gifted with a prodigious memory, he usually addressed them by their first names, warmly, like a father. The main means of recruiting personnel for the Department were examinations. Regardless of the student’s exam nerves and the associated temporary mental block, Hirszfeld could properly evaluate the student’s level of knowledge and intelligence, and thus his/her suitability for a specific kind of research work. He taught not merely medicine, but above all bold and scientific thinking [10].

In both the winter and summer semesters of the academic year 1948/1949, as a 3rd year student at the Wroclaw University Medical Faculty, Zbigniew Domoslawski – a clinician, historian of medicine, and the former head of the Department of Liberal Medical Sciences in Wroclaw – attended lectures given by Professor Hirszfeld in the lecture hall at the Department of Microbiology. In those days, when generally only a few students had textbooks, attendance at each lecture was high. The students would strain their ears to catch the lecturer’s every word, and would meticulously note it down, bearing in mind the upcoming examinations. Besides numerous Medical Faculty students, the lecturers and assistants at the Department of Microbiology would also turn up en masse at the lectures. The Professor was sensitive to the needs of the students and would hold seminars, requiring the students to write papers, which meant they could enter deeper into the mysterious world of medical science. He would also consent to students taking the examination earlier. Like Jerzy Strojnowski, Professor Domoslawski thought that Hirszfeld imbued his students with appropriate philosophical and ethical views, making a permanent contribution to the philosophy of both medicine and science.

Anna Przondo-Mordarska, recollecting the Professor’s passion for teaching, remembered something he wrote to her: “... in my opinion, at lectures the student should learn not only facts indispensable for him/her to practice his/her profession, but also the philosophy and attraction of a given branch of knowledge; he/she should gain insight into how ideas are shaped, into the technique of investigative creativity; the professor’s task is to win followers and create a school” [3, 11, 12].

His character was best summed up by Pawel Jasienica: “He was a teacher who was not afraid of his pupils” [13]. Marek Jaworski, like many others, maintained that Hirszfeld was gifted with an exceptional talent for teaching. Jaworski wrote: “I have no confidence in people who despise teaching. They are egocentric, devoid of the deepest urge – the urge to give. He would give his utmost.” Professor Hirszfeld would often emphasize the importance of teaching in the activity of scientists, since he saw, and deplored, that for most of them teaching was becoming increasingly peripheral to their work. He wrote: “Teaching is a sublimated paternal instinct and a social instinct” [14].

He was pleased that his students did not feel his “supervision as oppression, but always as friendship, as cordial collaboration.” “I can say, without fear of being accused of sentimentalism, that I love young people. The professor’s functions are grounded on three instincts: the paternal instinct, the scientist’s instinct and the artist’s instinct. The three instincts must cooperate in order to create professorial activity,” he stated in one of his speeches. He was a person who not only “loved young people with all his heart for their youth and drive for knowledge, but also loved his colleagues for their knowledge, loved each human being, seeing all the positive characteristics in him/her first,” noted Zygmunt Albert, a Wroclaw professor of pathology [15].

He was a direct, friendly, warm person, gifted with a sense of humor. “Let us not stint on warmth – it may be useful to those who are freezing in loneliness,” he would say. He was endlessly kind. “There is only one form of immortality worth seeking – human kindness,” he said. He recollected the interwar years: “We did not strive for a wider social life, yet I would often invite home scientists visiting Warsaw and our Department. I did so not only because of the desire to establish contacts, but also because of the duty of hospitality, and I also wanted our children, who were already in their adolescence, to be within the influence of the spirit of science and the distant world.” Janina Wartenberg, a Wroclaw immunologist and bacteriologist, felt that everybody was important to him; his warm, cordial attitude to everyone without exception won widespread admiration. “An ordinary, unassuming person, as great men are modest”, she recalls. He once said to her: “Child, you look haggard, maybe you should take three days off?” In the early 1950s, after a successful speech in Warsaw,
she was invited by the Hirszfelds to dinner at the Grand Hotel, where she spent a few hours in a pleasant, convivial atmosphere. The Hirszfelds would organize social gatherings around Christmas and balls for children. They would enquire: “How is your father? How is your mother? Are your children in good health?” For each child born to a member of the staff they would buy layettes with their own money – invaluable gifts in those hard post-war times. Hirszfeld infected people with his youthful enthusiasm. When on a stroll, he would take out a notebook in which he would note down things to attend to in the Department. Then he would take his walking companion by the arm and with the words “you know, my dear friends” he would begin a story about his undertakings in a confidential tone, which one uses only when talking about things close to one’s heart [16, 17].

The Hirszfelds left their flat on Wittiga Street in Wroclaw to Ewa Bohdanowicz, a Wroclaw pediatrician and hematologist who used to stay with them there. The flat was full of mementos, and Bohdanowicz changed little in the study there. It seems to her that her beloved Professor will enter any moment and ask her, as usual: “Well, what’s up, my child?” She remembers Sunday dinners on Wittiga Street, to which the Professor and his wife would invite their friends and assistants; as many as 20 people would sit at the table [17].

People that Professor Hirszfeld had befriended persons would arrive, often directly from the Institute, at the Hirszfelds’ for dinner, as a matter of course. The famous immunologist was also invited to the homes of various people and families [18].

Hirszfeld liked to quote Ernst Maro: “If I assign my student a topic and he/she comes after three months and does not know more about it than I, the student is a dud.” Hirszfeld had exceptional intuition. “He simply knew what was the most essential in the biological understanding of the world,” Marian Mordarski, a professor at the Institute of Immunology and Experimental Therapy, noted. In his professorial work Hirszfeld felt “like a gardener strolling about a flowery garden of human souls, stopping to prop up a flower here, to pull out a weed there, but when he sees a beautiful specimen he attends to it with special care and affection.” He often repeated: “If I sometimes dreamed of how I would like to live on in the memory of the young, it was never as a professor, nor, God forbid, as a director, but as a gardener of human souls. And I thought that the aim of life is to deserve to be remembered that way.” He fully appreciated everyone who wanted to work. Saving oneself was, in his opinion, marching in one’s own funeral procession during one’s own lifetime. Tadeusz Sporzynski recollected the Professor’s unusual attitude to his students and co-workers. He would sit up late at night with his juniors, scrupulously inspecting their work. In order to encourage them he would give them independent assignments that could be carried out quickly and published. After classes he liked to chat, sitting on a table. Maria Osinska recalls that in one’s dealings with Hirszfeld one felt independent, and at the same time safe and protected. When she went on a scholarship to the Pasteur Institute in Paris, she was known to no one there, but when they learned that she was Hirszfeld’s assistant, she became a “somebody”; everywhere she could hear whispers “that’s Hirszfeld’s researcher!” [2, 19].

Despite his gentleness, he could be firm in matters of principle. In a letter to Jerzy G. from Łódź, he wrote: “Unfortunately, I cannot give your work a positive evaluation. It consists partly of generalities and partly of incorrect formulations, so that the whole is not fit for publishing … I would advise you to work longer experimentally, and only later set yourself greater tasks… Therefore please take my frankness in good part. I do not question your good intentions, but it would not be good on my part to delude you as to the value of the manuscript” [20].

Hirszfeld cared about his co-workers, not only about their scientific work. In October 1951, in a country contending with numerous post-War difficulties, including food shortages, Hirszfeld wrote to the director of the Central Meat Industry Trade Office in Wroclaw, justifying a request for 15 kg of fat to be issued to the Medical Microbiology Department’s canteen: “The staff at the Department is constantly dealing with infectious material, and when there are possibilities of becoming infected, a lack of immunity due to malnutrition may contribute to the occurrence of infectious diseases […] The majority of the Department’s staff give blood for experimental purposes. It is highly recommended that the loss of blood be compensated by increasing their food rations” [21].

Hirszfeld cared about the exchange of scientific ideas. In a letter dated May 1947 he informed Sergiusz Siengalewicz, a professor of forensic medicine in Poznan, that his assistant could come to Wroclaw immediately and stay for as much as a few months, to take part in research into the Rh factor. Hirszfeld offered him a flat at the Department. The ending of the letter is evidence of the close intimacy between Hirszfeld and Siengalewicz: “If your assistants have adopted your charm, they will be very welcome here.” He readily consented to employ other scientists’ staff for a specified time (usually a few months), especially assistants from the country’s gynecological clinics in Poznan and elsewhere [22].
Professor Hirszfeld helped young people with many difficulties, but the range of this help exceeds the scope of the present article. A poem sent to Hanna Hirszfeld three years after her husband’s death by one of his students is evidence of how young people adored Hirszfeld:

For you we were always dear,
You would welcome us with such tenderness,
Now we are left all alone here,
We shall no longer await you joyfully,
I talked with you only once,
As I bashfully entered the surgery,
I heard the words:
"Dear children, sit down, how are things going?"
Then a handshake – and friendliness,
You asked: "Have you got a scholarship?"
"Is your room warm enough?"
The tone of Your voice was so kind – fatherly…

The author, a student, “was aware that that the above sentences had no artistic form, but they arose from grief at the loss of the beloved Professor” [23].

Ludwik Hirszfeld would say that "a good teacher should give his/her students not only a certain set of facts, not only formal knowledge, but he/she should arouse their scientific curiosity and enrage them with the originality of an approach” [24].

Hirszfeld created a school around himself from which dozens of independent researchers graduated – microbiologists, immunologists and pathologists. "We are not immortal – we must think about our successors. A man of science must be prepared for the fact that others will live in the edifice he is erecting,” he would often say. He maintained that one person is not enough to solve scientific problems; that not one life, not two lives, but hundreds of lives need to be woven into the field of scientific activity. “Get your scientific sons, grandchildren and the next young generations interested, encourage them, get them involved, develop their skills, broaden their knowledge, teach them and once again teach them.” He would assign a variety of research problems to his co-workers. He was convinced that universities should be a kind of sanctuaries. Among his alumni there were Bronisława Fejgin, Andrzej Kelus, Zbigniew Kostuch, Kazimierz Lachowicz, Henryk Makower, Władysław Manski, Feliks Milgrom, Feliks Przesmycki and Janina Slomska. The Professor’s closest co-workers – Roza Amzel, Wanda Halber, Roza Zaydel and Tekla Epstein – did not live to see the country liberated from the Nazi occupation [1, 24].

The Professor was characterized by understanding, tolerance and kindliness. Envy, so frequent in the world of science, especially towards successful colleagues, was alien to him. Andrzej Gorski writes that despite the fact that he [the Professor] did not share the Nobel Prize with Karl Landsteiner, nowhere is there any mention of his feeling disappointed or as if it was unjust. On the contrary, he always spoke warmly and enthusiastically of Landsteiner [25, 26].

If the authors of this article have succeeded in sketching, albeit roughly, a portrait of this eminent
immunologist, serologist and microbiologist in a different dimension than hitherto, they will consider their task accomplished.

Ludwik Hirszfeld – an eminent scientist and educator, a tolerant and kind man who created a new medical school, who continuously “infect ed” university students and junior researchers with creative drive, and by whom he was adored – was very accurately characterized in a posthumous tribute by Mirosław Krzykowski, a student at the Wrocław University Medical Faculty: “As a scientist, as a doctor, and above all as a person he understood with his great mind and big heart the sense and essence of our life” [27]. The accounts by Professor Zbigniew Domosławski and Dr Jerzy Bogdan Kos, doctors who came into contact with this world-famous scientist when at the university, are uniquely valuable.