

Israel Halperin 1911-2007

A student of the legendary Johannes von Neumann at Princeton in the 1930s, a wrongfully accused spy in Canada in the 1940s, a distinguished mathematician and a tireless campaigner for human rights until well into his 90s, Israel Halperin embodied the expression, "a rich and varied life."

His parents were Russian immigrants. His father, Solomon Halperin, was born in a small village called Antonine in Ukraine and his mother, Fanny Lundy, came from the village of Gorodok near Romania. They met on a boat to London, England, corresponded and reconnected later in Canada. They were married in Montreal and settled in Scarborough in the east end of Toronto where they raised their four children, Ben, Israel, Clara and Bill.

After Malvern Collegiate, Israel entered Victoria College at the University of Toronto in 1928, graduating with a bachelor's degree in 1932, having won a mantle-full of awards including top marks in mathematics and physics every year. Two years later he had earned his master's degree and was at Princeton University registered for his Ph.D. "Those were the days when refugees were coming out of Europe, and those in mathematics seemed to head first for Princeton, because the Institute [of Advanced Study] and the University's math department were both there," Prof. Halperin said in an interview in 1984. "There was hardly a day in the common room [of Fine Hall] we wouldn't see a new face and ask who that was, and the answer would be some mathematician we'd heard of, who was a great researcher."

Among them were physicist Albert Einstein and mathematician Johannes von Neumann, the father of computer science and inventor of robotics and game theory. Naively, Mr. Halperin asked Prof. von Neumann, if he would direct his doctoral thesis, not realizing that he had such an exalted research position that he was not required to supervise graduate students.

Nevertheless, Prof. Neumann (who was doing work on operator theories and about to invent continuous geometries) took him on, giving Mr. Halperin the distinction of being the great Neumann's only Ph.D student. After completing his doctorate, Prof. Halperin worked at Yale as a Research Fellow from 1936-37, and spent the next two years as the Benjamin Pierce Instructor at Harvard University. He wanted to come back to Canada so he accepted a position in the fall of 1939 as an assistant professor of mathematics at Queen's University in Kingston, having already published several mathematical papers. He was 28. The following December, he married

Mary Esther Sawdey (the sister-in-law of his Harvard colleague, physicist Wendell Fury). The Halperins had four children: Stephen (1941), Constance (1944) William (1945) and Mary Elizabeth (1948).

In 1942, Prof. Halperin took military leave from Queen's to enlist in the Royal Canadian Artillery and was commissioned as a second lieutenant. Mostly, he worked at Canadian Army Research and Development Establishment in Ottawa on artillery problems, explosives and secret intelligence research into rockets and other issues. He attained the rank of major before his discharge at the end of the Second World War. While in Ottawa, he made the acquaintance of Gordon Lunan (obituary Oct. 15, 2005) a lieutenant in the Canadian Army who worked on Canadian Affairs, a newsletter for troops serving overseas. Mr. Lunan was actively trying to recruit informants and solicit information from scientists sympathetic to the Soviet Union. He mentioned Prof. Halperin in four reports to his Soviet spy-master Colonel Rogov, although never as the source of any secret information.

After the war, Prof. Halperin resumed his teaching career at Queen's and moved his family back to Kingston where he and his wife built a house in west end of the city. And then his life went haywire. Igor Gouzenko, a cipher clerk in the Soviet Embassy in Ottawa, had defected in September of 1945, bringing with him a list of names of alleged spies and fellow travellers. One of them, Gordon Lunan, implicated Prof. Halperin. The RCMP swooped down on him on Feb. 15, 1946, raided his office and whisked him away. (Partly because of the repercussions of Mr. Gouzenko's defection, the Canadian government had still not rescinded the War Measures Act, which had been in force since 1939.) Prof. Halperin was held incommunicado by the RCMP at its Rockcliffe Barracks on an order signed by then Justice Minister, Louis St. Laurent, pending an appearance before the Kellock-Taschereau Royal Commission.

Prof. Halperin's identity became known after he wrote a letter to John Bracken, the Progressive Conservative Party leader, which was read in the House of Commons on March 21, 1946. "For the past five weeks I have been held in solitary imprisonment, denied access to legal counsel and newspapers; in short, cut off from the outside world," he wrote. "I charge the minister of justice with using his authority in a way which sets a dangerous precedent, one which should alarm every Canadian citizen." He then described himself as coming from a family "whose concern for our country was sufficient to put two sons in uniform. One of them is writing this letter; the other is at the bottom of the ocean."

When he was summoned to appear before the Royal Commission, he refused to make any statement without legal representation. His hearing was adjourned until March 27, 1946. Meanwhile, Prof. Halperin's wife Mary and his sister Clara Halperin (later Muskat), a lawyer, presented a habeas corpus petition to Mr. Justice Walter Schroeder in his chambers at Osgoode Hall in Toronto, arguing that Prof. Halperin's detention was "irregular, illegal, defective, insufficient." On March 26, 1946, Judge Schroeder granted the writ and Prof. Halperin was released, but required to appear in Ottawa Weekly Court four days later, where he was

represented by A. H. Lief (obituary Feb. 17, 2007). When his hearing before the Commission was reopened, he refused to answer what he described as a "cross examination." A month later he was charged with conspiracy and violating the Official Secrets Act, and was committed for trial in Dec. 1946.

His trial came to a halt when the Crown called Mr. Lunan as a witness and he refused to testify pending the outcome of his appeal against his own conviction on spy charges. The court reconvened for Prof. Halperin's trial in March of 1947 and the charges against him were dismissed when Mr. Lunan again refused to testify. After 13 harrowing months, Prof. Halperin was legally a free man, but he was still under suspicion in the groves of academe where several of his colleagues wanted him fired. The man who came to Prof. Halperin's defence was Robert Wallace, principal of Queen's, who quickly moved to reinstate his salary, academic status (coincidentally, he had been on unpaid research leave since Oct. 1946) and sabbatical, according to Frederick Gibson in *Queen's University: To serve and yet be free*. When a member of the university's board of trustees wrote to Principal Wallace declaring that "some Alumni" felt that "a Communist fellow-traveller" was not the "the type of individual who should be teaching in a Canadian university," the principal replied that "until a man is proved guilty, he has to be deemed as innocent." Nevertheless, Prof. Halperin's continued employment at Queen's was only happily resolved after a heated debate at the board of trustees in May, 1948. Among the testimonials sent on Prof. Halperin's behalf was a letter from the Institute of Advanced Study at Princeton signed by Albert Einstein and 11 others describing him "not only as a mathematician of high standing but also as a man of greatest integrity" and finding it "impossible to believe" that he could be guilty of any real breach of trust or honour."

For the rest of his life Prof. Halperin refused to discuss his ordeal, with family, colleagues or even historians Frederick Gibson or Michiel Horn, author of *Academic Freedom in Canada*. His sister Clara, who had acted for him in obtaining the writ of habeas corpus, declined to comment on her brother for this obituary. Prof. Halperin was elected a fellow of the Royal Society of Canada in 1953 and given its Henry Marshall Tory Medal in 1967. He continued to teach at Queen's until 1966, with regular sabbatical leaves to the U.S. and Europe, when he was hired away by the U of T. At least one of his Queen's students, George Elliot, now a distinguished mathematician, followed him down the road to Toronto.

Nobody was doing operator algebras in Canada when Prof. Halperin began teaching at Queen's in 1939, so he not only brought that field, which is basically a combination of algebra, geometry and quantum mechanics, to this country, but he was also largely responsible for its survival for the next 30 years until it became a hot topic internationally in the 1960s, according to Prof. Elliott. During Prof. Halperin's long career, which extended long beyond his mandatory retirement in 1976, he published more than 100 papers and influenced waves of younger mathematicians. He also completed two substantial manuscripts that Prof. Von Neumann left in an inchoate state when he died in 1957, *Continuous Geometry* (1960, 1980) and *Continuous Geometries with a Transition Probability* (1981).

Mathematician Peter Rosenthal was attracted to the University of Toronto as a young assistant professor largely because of Prof. Halperin's work on operators on Hilbert space (a kind of infinite dimensional space). In the late 1960s, Prof. Halperin founded an international newsletter to broadcast and monitor developments in operator algebras and established the First Canadian Annual Symposium on Operator Algebras and Their Applications in 1972 -- many of the participants who gathered for these informal discussions were former students. Eight years later, those same mathematicians started the Israel Halperin prize, in honour of his 70th birthday, which is given every five years to a younger mathematician who has done significant research in the area of operator theory or algebras. The symposium is now in its 35th year.

"He was a very good mathematician, a very sharp and very clear thinker and he was also very interested in human rights work," said Prof. Rosenthal. Nobody can say precisely why Prof. Halperin became a committed campaigner for scholars who were being repressed by their own governments, but it is reasonable to suppose that his own incarceration and subsequent problems with academic freedom spurred him to act on behalf of other scholars.

He was really a committee of one, acting on one case at a time, and conducting his campaigns in a very dignified letter-writing mode. Typically he would write to Nobel Laureates asking them to add their names to his campaign literature. With French mathematician Henri Cartan, he formed an international committee of scientists and scholars at the International Congress of mathematicians in Vancouver in 1974 to lobby for the release of Leonid Plyushch, a Russian mathematician who had been incarcerated in a psychiatric hospital and subjected to insulin therapy. He was released in 1976, at least partly because of the 10,000-name petition that Prof. Halperin helped accumulate. Prof. Halperin became the secretary of the Canadian Committee of Scientists and Scholars and campaigned successfully for the release of José Luis Massera from prison and torture in Uruguay in 1984 and Anatoly Shcharansky from a Soviet labour camp in 1986 and for permission to immigrate to Israel. The New York Academy of Sciences gave him the Heinz R. Pagels award in 1999 in recognition of his work in advancing the human rights of scientists around the world.

Mathematics is widely considered a young person's vocation, but Prof. Halperin continued as an active scholar well into his 80s and was having "serious mathematical thoughts," even in the last year of his life, according to Prof. Rosenthal. A few months ago, he decided to give up mathematics -- he was 96 -- and gave away some of his papers. By then Prof. Halperin and his wife Mary had long since moved from the family home into a condominium and he was suffering serious repercussions from a genetic heart condition. Eventually, his circulatory system wasn't able to distribute sufficient blood to service his organs and he had to go into hospital on March 5, 2007. He died of organ failure on March 8, 2007 at the age of 96.

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