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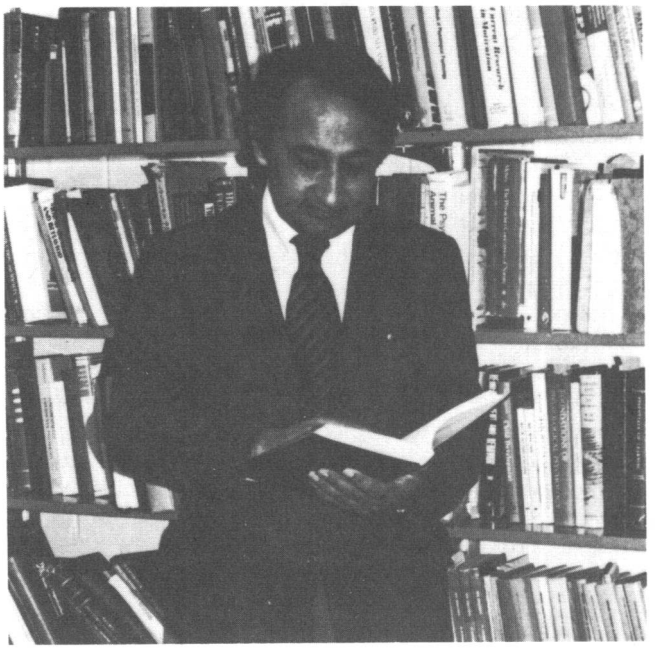
Dalbir Bindra (1922–1980)



Dalbir Bindra's death is a blow to psychology and to his past and present colleagues in Canada and elsewhere – a bad blow especially for Canadian psychology. He was a source of strength in the Department at McGill before he became Chairman, and as Chairman he strengthened the Department further both in teaching and in research, in addition to his own function in both fields.

For me, for a quarter of a century, he was one of those to whom I could turn for discussion of a problem or advice on a manuscript. I found him invaluable as a critic – clear, persuasive, and firm. I am left deeply in his debt.

D. O. Hebb
Dalhousie University

Dalbir Bindra was the quintessence of the rational man. From an early age he dedicated himself with uncommon objectivity and analytic skill to psychology as science. For him the important problem in psychology was the concomitance of neural and behavioral events. This classic problem has fascinated some of the great minds in the history of thought. With courage, persistence, optimism, and singleness of purpose, he applied all his theoretical and experimental skills to this problem. His faith in science was unusually strong.

Dalbir Bindra came a long way from Rawalpindi, then part of India, where he was born in 1922 into a family of the Kshatriya, or "Warrior" caste. He had two sisters and three brothers. His brothers pursued military careers; two became generals, one an admiral. Dalbir Bindra was viewed as different from the others. From an early age he developed scholarly interests. He enjoyed reading and frequented libraries. His early education was in English, Hindustani, and Urdu. He had never heard of psychology until his second year in Punjab University in Lahore when by chance he encountered a book in The Thinkers Library, called *Psychology*. Other books that influenced him in those early years were the 1940 edition of *Conditioning and Learning*, by E. B. Hilgard and D. G. Marquis, and the 1938 edition of *Experimental Psychology* by Robert S. Woodworth. He also read Pavlov. His university education was a melange of biology, philosophy and psychology. The psychology resources of Punjab University in the 1940s were few indeed, but Dalbir Bindra was always persistent in the pursuit of his interests. Influenced by one of his teachers, he took the unusually bold step of applying for admission to Harvard. He was accepted. Because of the war, reaching Harvard was a problem. He sailed on an army troop ship by a long and devious route across the Pacific and landed in the United States at the end of November 1944.

In his first year at Harvard, Dalbir Bindra took the proseminar then run by J. G. Beebe-Center and came under the influence of Boring, Allport, Stevens, and others. Fellow students at that time included Jim Egan, Davis Howes, George Miller, Leo Postman, Mark Rosenzweig, and Virginia Sanders. Dalbir Bindra completed an M.A. in 1946 and a Ph.D. in 1948. His Ph.D. research director was J. C. R. Licklider, who at the time was interested in audition. Bindra, on the other hand, was primarily interested in animal behavior. His first published research was on hoarding in rats.

Dalbir Bindra spent two years at the American University in Washington and joined McGill in 1949. At that time D. O. Hebb had just replaced Robert B. MacLeod as chairman. MacLeod had left McGill to become chairman at Cornell. The department was understaffed and ill equipped. Its aspirations were inversely proportional to its resources. From the day of his arrival, and for thirty-one years, Dalbir Bindra occupied a vital place in McGill psychology. He was a dedicated teacher, a meticulous scientist, a respected protagonist, and loyal to the goals of the department – goals he himself helped to create. In return, McGill, with its many strengths in the brain sciences, provided an admirable climate for the pursuit of his particular research interests.

The question, What makes rats hoard?, was the origin of Bindra's early interest in motivation. He did research and published a series of papers on the topic.

This work culminated in the publication in 1959 of a book, *Motivation, a systematic reinterpretation.* Bindra had skills as a systematist. This book was an attempt to systematize and reinterpret a large body of literature within a new framework. He believed that motivation could not be explained by any unique physiological or correlated behavioral process. Motivational phenomena, such as exploration, hunger, fear, and sex, must be interpreted within the integrated context of perception, learning, and cognition. This book illustrated a general characteristic of Bindra's work. He had an integrative drive. As a psychologist in the classic tradition he was interested not only in sensation, perception, cognition, motivation, and emotion, but also in how the processes in these various domains relate and interact one with another. His book on motivation was a success, and at the time represented an important step forward in its field.

As the years went by, Bindra expanded his research interests to include psychopharmacology and neuropsychology. His research became more physiologically oriented. The neural correlates of "so-called" intelligent behavior became a preoccupation. For him, intelligence was not viewed as belonging to the traditional realm of individual difference psychology. In his own words, behavior described as intelligent was "characterized by flexible goal direction, a high capacity for retaining acquired information and for the transfer of prior knowledge to new situations, foresight characterized by anticipatory choice and planning, and their invitation of global adjectives like 'volitional' and 'conscious'." This is a more comprehensive view of intelligence than is ordinarily accepted. He believed that the central problem in psychology was the discovery of the integrative brain processes that are concomitant with intelligent behavior. After much assiduous effort he published in 1976 a book, *A Theory of Intelligent Behavior.* This was a major work. It attempted to integrate in a systematic way a massive body of data drawn from brain and behavioral science. It is probably the most comprehensive effort of its kind thus far attempted.

Although the central theme of Dalbir Bindra's research was brain and behavior, from time to time his curiosity led him to explore diverse topics. For example, his 1958 presidential address to the Canadian Psychological Association was on the relation between experimental psychology and behavioral disorders. The ideas expressed in this address are directly compatible with later developments in behavior modification. Another example of this diverse curiosity is found in a 1972 paper on weeping. His last published scientific comments, published in *Science* in 1981, were on ape language.

Dalbir Bindra contributed in many ways to McGill University, the Department of Psychology, and to psychology in general. He served on many university committees, and was for a time a member of the University Senate. He was a highly respected teacher, and guided the research of many Ph.D. students. He served for many years on the Executive Committee of the Department of Psychology, and was chairman of that department from 1975 to 1980. In 1957 he was a visiting lecturer at University College, London. This is noteworthy because while there he met his wife, Jane Stewart.

Throughout his career, Dalbir Bindra was active in psychology in Canada and played an important role in its growth. One of his interests was financial support for research in psychology. He wrote reports and published papers on this topic. From 1962–68 he was chairman of the Associate Committee on Experimental Psychology of the National Research Council of Canada. He was President of the Canadian Psychological Association in 1958–59. He was awarded the Canadian Centennial Medal in 1967. He was a Fellow of the Canadian and American Psychological Associations. In 1973 he was elected Fellow of the Royal Society of Canada, one of the very few psychologists in Canada to be so honored.

Dalbir Bindra's role as a teacher deserves special comment. He was greatly respected by undergraduate and graduate students alike, not only for his intellectual stimulation but also for his personal concern and support. Many of his Ph.D. students are now engaged in building careers of distinction. He demanded high standards of achievement and made no compromise with mediocrity; nor did he sacrifice excellence for popularity. His uncompromising intellectual integrity as a teacher was an example to others.

Dalbir Bindra was so intimately involved in the McGill community that many tended to forget that he was an Indian, living in a culture that at times must have appeared to him to be harsh, perhaps even alien. Yet he participated in many activities that are part of the Canadian way of life. He had an interest in and was a collector of Canadian art. He was attracted to Canada's woods, lakes, forests, landscapes, and wildlife. The loon held a particular attraction for him. He was greatly attached to his summer home at Lac Grenier in Quebec. He adapted to the harsh Canadian winters by learning to ski, not an easy task for a man from Rawalpindi. Although he shared many facets of our way of life he remained very much an Indian with a strong pride in Indian culture and the values of his earlier life. He held his family in India in great affection and visited them whenever the opportunity arose.

One of the happiest dimensions of Dalbir Bindra's life was his marriage to Jane Stewart, a professor of psychology at Concordia University in Montreal. All his personal and professional interests were shared with her. In 1971 he co-edited with her a book of readings on motivation. Many colleagues, friends, and visiting psychologists found gratification in the warmth and stimulating environment of their home. Their hospitality and generosity added an unusually warm facet to life in the McGill community.

Dalbir Bindra enjoyed a richly textured life. He died on the last day of the year just as he was about to leave for Italy to visit colleagues there in the field of neuropsychology. His death, at 58, completely unanticipated, was a misfortune to Jane Stewart, his family and friends, to McGill, and to the discipline of psychology to which he was deeply devoted.

George A. Ferguson
McGill University