WILLIAM JAMES MCGILL
(1922–1997)

(Photo courtesy of Dr. Kimberly Jameson, Summer 1997.)
IN MEMORIAM

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William James McGill, age 75, died of heart failure on October 19, 1997, in Thornton Hospital, La Jolla, California. Ann, his wife of nearly 50 years, his daughter Rowena, and his son Bill were with him. During a private funeral at Mary Star of the Sea Catholic Church in La Jolla, Richard Atkinson, President of the University of California, eulogized his long-time friend as a man of leadership, integrity, and scholarship.

William J. McGill's distinguished career spanned the most formative era of modern psychology. The young Irish-Catholic McGill grew up in the Bronx borough of New York City. Educated at Our Lady of Mercy and then at Cathedral Boys, the scholarship school run by the New York Catholic Archdiocese, McGill received an excellent classical education.

Winning a New York State Regents Scholarship provided McGill the means to attend Fordham University. The university curriculum, based on the Jesuit Ratio Studiorum, provided training in Latin, Greek, science, mathematics, philosophy, logic, epistemology, ontology, and related classical subjects. Psychology, normally taught as the study of the soul, caught the young McGill's interest when a visiting Belgian Jesuit taught experimental psychology by requiring students to read Woodworth's 1938 *Experimental Psychology*, cover to cover.

McGill graduated in January 1943, during the darkest days of WWII. His mathematical talents earned him a special post of engineer for an airplane manufacturer. Following the war he returned to Fordham as a master's student enticed by psychometrics and a renowned faculty. Graduating with a master's degree in 1947, he married Ann Rowe in 1948. Ann suggested he apply to a very fine university that graduated several of her uncles—Harvard. When accepted at Harvard he asked Chairman Edwin Newman why Harvard admitted him. Newman replied that when reviewing the various transcripts he noticed that McGill had failed religion. Newman said that anyone who had failed religion and yet graduated from a Jesuit school must possess some other very redeeming values.

The faculty consisted of B. F. Skinner, S. S. Stevens, J. C. Licklider, E. G. Boring, Walter Rosenblith, Frederick Frick, K. L. Lashley, and Georg von Bekesy, to mention a few of the many stars of psychology. They were assisted by an entering class that included William James McGill, Ira Hirsch, Mark Rosenzweig, D. H. Howes, and W. D. Ward, to mention a few of the luminaries that emerged from that crucible of psychological science. In 1951, he joined the staff of MIT's Lincoln

Receiving his Harvard Ph.D. in 1953 under the direction of Walter Rosenblith, McGill continued research at Lincoln Laboratory. In 1954 he joined Miller and Licklider to offer a radical new program in cognitive science as part of the MIT curriculum. During this period, he published important papers on information theory, multivariate information transmission, and with W. J. Garner the relation between information and variance analyses.

That theoretical momentum continued during a lengthy career at Columbia University. Beginning in 1956 as associate professor of psychology McGill became professor and chairman (1960–1963). His output of theoretical ideas reads like an ambitious graduate student's wish-list: applications of information theory in experimental psychology (1957), serial effects in auditory threshold judgments (1957), search distributions in magnified time (1960), the slope of the loudness function (1960), loudness and reaction time (1961), random fluctuations of response rate (1962), stochastic latency mechanisms (1963), and with C. G. Mueller in 1963, theories in sensory psychology. McGill also reviewed in his own unique, compelling style important monographs by Attneave, Torgerson, Restle, and Kullback and edited volumes by Luce and by Bush and Estes.

When McGill visited the Institute for Mathematical Studies in the Social Sciences at Stanford University in 1963–1964, he brought along a view of psychological processes that complemented the theoretical ideas of Patrick Suppes, W. K. Estes, R. C. Atkinson, Gordon Bower, Michael Cole, and Edward Crothers, to name a few of the prominent psychologists peopling the Institute's Ventura Hall. Three important products developed during that sabbatical year. The first was an increased appreciation by many Institute graduate students of the theoretical value of stochastic processes. The second was the now famous unpublished manuscript "Introduction to Counter Theory in Psychophysics." During the year this compelling work evolved into an extensively illustrated seven-chapter, 231-page monograph that remains as one of the most advanced works on psychophysics. The third, and perhaps the most important outcome, was his contribution to the founding of this journal.

The year 1964 found the Columbia Psychology Department in turmoil. McGill succumbed to the lure of a newly founded department at the University of California campus in La Jolla (UCSD)—an easy catch for the new chairman, George Mandler. The year was 1965 and Mandler and McGill began building the type of research-based department McGill hoped to create at Columbia. Also, maintaining his theoretical orientation toward the mechanisms of sensory processes, he published with John Gibbon "The General Gamma Distribution and Reaction Times" (1965). Additional theoretical results followed in "Neural Counting Mechanisms and Energy Detection in Audition" (1967), "Polynomial Psychometric Functions in Audition" (1968), "Variations on Merill's Detection Formula" (1968), and with Goldbert two papers on pure tone intensity discrimination. The talented faculty McGill and Mandler
recruited formed a powerful corps that by 1995 elevated the department to 10th rank among departments evaluated by the National Academy of Sciences.

Yet, the new university felt staggering growing pains. Concerns about civil rights, the war in Vietnam, and freedom of speech combined to whiplash UCSD. Following several tumultuous years of campus strife and riotous protests McGill became chancellor (1968–1970) of a university at war within itself, if not with the new governor of California, Ronald Reagan. Radical groups set political landmines. Professor Herbert Marcuse, the neo-Marxist philosopher, and Angela Davis aroused howls of protest and equally intense hollers of support. His courageous defense of Marcuse earned McGill the enmity of the American Legion and the Civil Libertarian of the Year Award from the American Civil Liberties Union (1969). McGill reflected on and revealed much of the inside action of these anxious years in his autobiographical account, *The Year of the Monkey* (1982).

The theorist in McGill could not help but view the transmission of hostility and rage with mathematical dispassion. He created models of the transmission of dissent, all apparent in his later work on Poisson models of sensory transmission. But the threatening, disturbing experiences at UCSD, such as the horrible self-immolation by a senior student on May 10, 1970, in Revelle Plaza, proved too much and in 1970 McGill returned to New York City, to a troubled Columbia University as its 16th president.

During the next 10 years of administrative struggle, McGill honed his ability to draw discourse from dissent. His style of dialogue and conflict resolution required building trust and honor in the midst of rancor and rage. A less energetic talent might easily have failed, but during his 10 years of stewardship, McGill presided over a rejuvenation of Columbia University. By balancing the books during a time of increasing enrollment, fostering dialogue rather than dissent, completing major new constructions, and initiating new administrative policies, he restored the university's confidence and left a legacy of optimism about the university's future. He became known as an honorable broker of diverse opinions.

The engaging, sagacious, Irish-Catholic President of Columbia also became a sought-after New York celebrity and a director of such major American corporations as AT&T, Texaco, Occidental Petroleum, and McGraw-Hill. He served as chairman of the New York State Special Advisory Panel on Medical Malpractice and important national commissions such as President Carter's Commission on a National Agenda for the 1980s and the Second Carnegie Commission on the Future of Public Broadcasting. Yet, even during these years of administrative toil, McGill continued his theoretical treatment of sensory processes. Discovering that the amount of sensory noise was not sufficiently large to account for results from many auditory detection experiments, he declared at a 1975 meeting of the New York Academy of Sciences that ideal observer theory was "mathematical claptrap."

McGill became president emeritus of Columbia in 1980 and returned to La Jolla as adjunct professor of psychology and former chancellor of UCSD. His reputation as an honorable broker of opinion led to his appointment as mediator of a labor dispute between the San Diego Symphony Orchestra and its governing board. He became chairman of the MacArthur Fellows Selection Committee, a director of the Lounsbury Foundation, the Weingart Foundation, the Armand Hammer United
World College of the American West, and a trustee of Lycee Français in New York and the Burnham Institute in La Jolla. By 1990 his interests expanded farther and he helped to found San Diego Dialogue, a group of prominent leaders in San Diego and Tijuana that discuss issues of joint importance to the neighboring border towns.

His scientific interests always lay at his fingertips. At Columbia, he discovered a kindred spirit in the Department of Electrical Engineering. Beginning in 1975 Bill McGill and Malvin Teich developed rigorous, insightful accounts of sensory processes. The series began with “Neural Counting and Photon Counting in the Presence of Dead Time” in *Physical Review Letters* (1976) and continued until the most recent paper, “Alerting Signals and Detection in a Sensory Network” (1995) in this journal. An extensive application of the ideas developed during a career of nearly 50 years will appear in the book McGill and Teich were completing at the time of Bill's untimely death.

Showered with honors and awards—UCSD named their Psychology Department building McGill Hall—he still took special pleasure mentoring young faculty who came to seek his advice. Many remember his corrections to their manuscripts and his suggestions about writing style, brevity, and the adroit use of a subtle turn of phrase. News of his death passed quickly across the Internet. Psychophysicists around the world, meeting on Fechner Day (Oct. 22, 1997), praised Bill's many accomplishments. We can remember him as a stalwart supporter of academic freedom and integrity, a positive force for the betterment of his fellow man, a keen scientist with a genius for administration, and a man of honor, courage, and energy to whom so many owe so much.

Stephen Link

*Link Psychophysical Laboratory*

*Department of Psychology*

*McMaster University*