

# Donald Pearce Hayes

*November 30, 1927 — October 17, 2006*

Donald P. Hayes, Professor Emeritus of Sociology, died at his home in Cayuga Heights on October 17, 2006. Professor Hayes was born in Baltimore, Maryland in 1927, the son of missionaries working in the vicinity of Foochow (now called Fuzhou) in China. He lived in China until the family's continued stay was made impossible by the outbreak of the Sino-Japanese War in 1937. His family settled in South Pasadena, California, where Don attended public schools.

Don left home at 15 to work on an orange ranch owned by family friends in nearby Claremont. At 16, he worked as a dorm counselor and bus driver at the Norton School in Claremont, where he graduated in 1946. He then enlisted in the U.S. Army, serving with the 88th Division on a peacekeeping mission at the Italian-Yugoslav border.

After completing his military service in 1948, Don enrolled at Pomona College, where he earned a B.A. degree in 1952. His freshman year, he met Florence (Lolly) Colburn, also a freshman at Pomona, whom he married in 1950. Attracted by the science-oriented graduate program in Sociology at the University of Washington, he enrolled in 1952 and received his degree in 1959, studying under George Lundberg and Frank Miyamoto. He then spent a year as a Postdoctoral Fellow at the Department of Social Relations at Harvard, followed by another year back in Seattle.

He joined the faculty of the University of California in Riverside in 1962 as Assistant Professor of Sociology. The following year, 1936, he came to Cornell, where he spent the rest of his academic career, retiring as Professor Emeritus in 1998. At Cornell, he served as Director of the Social Psychology Laboratory, Director of Undergraduate Studies, Director of Graduate Studies, Department

Chair, Secretary of the Graduate Faculty, and member of the University Senate. He served on the Undergraduate Admissions Committee for the College of Arts and Sciences for over 20 years, and the College's Human Subjects Committee for over 25 years. In his positions of academic leadership, he advocated for a natural science orientation for the social sciences, with an emphasis on quantitative measurement and analysis.

Don and Lolly had five children. All four daughters graduated from Cornell and went on to earn doctorates in law from Cornell (Peggy and Judy), and Harvard (Leslie and Louise). His son, Bruce, graduated from Harvard and earned a doctorate in linguistics from MIT.

Don's research reflected his belief that the methods of the natural sciences, particularly the use of objective measures and controlled experiments, can be successfully applied to the study of social life and human interaction. His work influenced the direction of the discipline and made lasting interdisciplinary contributions to social science. With Leo Meltzer, Don showed that experimental subjects can make accurate judgments of affect in a three-way conversation by attending only to a panel of lights that were illuminated during the time the participants were speaking. Long before it became fashionable, he emphasized biological influences on human behavior. In a research collaboration with Loren Cobb supported by the NIH and NSF, Don monitored subjects living in isolation for long periods in the Social Psychology Laboratory. They found that biological rhythms with a range of periodicities governed the subjects' propensity to engage in spontaneous speech.

The impact of his research extended beyond the scientific community. In a study with Judith Grether, he found that summer vacation plays an important role in differences in student achievement, with at-risk students falling behind their peers more during the summer months than during the academic year. He developed a replicable measure of lexical difficulty (LEX) by gathering thousands of texts from libraries, archives, and human subjects (<http://www.soc.cornell.edu/hayes-lexical-analysis/schoolbooks/>). Using the LEX measure, he tracked changes in the intelligibility of scientific articles, with the results published in *Nature* in 1992. Working with Margaret Ahrens, he also applied LEX to the "motherese" hypothesis in child language acquisition. In work that dominated Don's Emeritus years, he gathered hundreds of American textbooks and dozens more schoolbooks from Canada, France, Sweden and New Zealand, and compared their LEX scores with time series verbal test scores. He concluded that simplification of schoolbook vocabulary over the decades correlated to students' declining vocabularies and general knowledge. Although he formally retired from Cornell as Professor Emeritus in 1998, he actively continued his research on language. His principal publications included:

Hayes, Donald P. and Leo Meltzer (1972) Interpersonal judgments based on talkativeness: fact or artifact? *Sociometry* 35: 538-561

Hayes, Donald P. and Loren Cobb (1979) Ultradian biorhythms in social interaction. In Siegman, A. & Feldstein, F. (eds.) *On Time and Speech*. Hillsdale, New Jersey: Erlbaum, pp. 57-70.

Hayes, Donald P. and Judith Grether (1983) The school year and vacations: When do students learn? *Cornell Journal of Social Relations* 17: 56-71.

Hayes, Donald P. (1988) Speaking and writing: distinct patterns of word choice. *Journal of Memory and Language* 27: 572-585.

Hayes, Donald P. and Margaret G. Ahrens (1988) Vocabulary simplification for children: a special case of 'motherese?' *Journal of Child Language* 15: 395-410.

Hayes, Donald P. (1992) The growing inaccessibility of science. *Nature* 356: 739-740.

Hayes, Donald P., Loreen T. Wolfer, and Michael F. Wolfe (1996) Schoolbook simplification and its relation to the decline in SAT-Verbal scores. *American Educational Research Journal* 33: 489-508

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