

## OBITUARY

### FREDERIC MATHER LORD (1912–2000)

Frederic Mather Lord, the principal developer of the statistical machinery underlying modern mental testing, died on Saturday, February 5th, in Naples, Florida. He was 87.

In the 40 year span from the end of World War II until a near fatal automobile accident in South Africa, Dr. Lord was recognized as the preeminent authority in the statistical theory of mental tests. His 1968 text, with Melvin Novick, *Statistical Theories of Mental Test Scores*, remains today the definitive treatment of the observed score test theory popular up until that time, and the official beginning of modern item response theory.

Beginning with his Princeton doctoral dissertation in 1952 and culminating in his 1980 book *Applications of Item Response Theory to Practical Testing Problems*, Lord provided a theoretical structure for optimally combining item scores.

The statistical model Lord developed, item response theory, had two important practical consequences. First, it provided an objective way of assessing the value of each item, and second it allowed different examinees to take very different tests and yet still obtain scores that were comparable. It is this latter characteristic that has made modern computer administered tests possible. Such tests are “adaptive” in that they become more or less difficult depending on the ability of the person taking them. This makes for the possibility of much more accurate and efficient assessments. Item response theory is the only way yet found to gracefully score such tests. Lord foresaw many of the promises of adaptive testing in a series of three prescient 1971 papers.

Describing Lord’s work in 1983, William Turnbull, then president of Educational Testing Service wrote “What is rare in any discipline is the emergence of an encompassing and unifying theory—the twist of the kaleidoscope of facts and hypotheses that shows a new ordering which carries explanatory power and provides a consistent framework for understanding. The disparate pieces fall into place, the relationships between elements are made evident. The appearance of such new ordering based on an underlying logic is always a giant step in science. Lord’s work deepened the foundations of a broad synthesizing structure, placing existing work into a new perspective as special cases in a more general logical context”.

Lord was honored as a Fellow of the American Psychological Association, the American Statistical Association, and the Institute of Mathematical Statistics. He received the Educational Testing Services Distinguished Service to Measurement Award in 1983 and the National Council on Measurement in Education’s Distinguished Career Award in 1991. He served as president of the Psychometric Society and of the Division of Evaluation and Measurement of the American Psychological Association. He was also a member of the Psychometric Society, and he was on the editorial council of the Psychometric Society from 1953 until 1985—during eight of those years he was chairman of the Council and an Associate Editor of *Psychometrika*, the Society’s journal. He published over 100 professional articles, book chapters and books.

In May 1982, when a major conference was held at ETS commemorating Lord’s 70th birthday, participants came from as far away as Australia and Europe. The conference resulted in the publication of a major volume in his honor entitled *Principals of Modern Psychological Measurement*, which was edited by Howard Wainer and Samuel Messick. The volume brought together new scholarly contributions from around the world that were stimulated wholly or in part by the work of Lord.

Fred Lord was born in Hanover, New Hampshire, on November 12, 1912. His father, Frederick Pomeroy Lord, taught anatomy at the Dartmouth Medical School and his mother, Jeanette Mather Lord, was a prominent suffragette. He graduated from Dartmouth College in 1936, received a masters degree from the University of Minnesota in 1943 and a Ph.D. from Princeton in 1952. In 1944 he began his long association with what was to become the Educational Testing Service, first with the Graduate Record Office of the Carnegie Foundation, rising from Research Assistant (1944) to Assistant Director (1946). In March of 1949 he joined the newly formed

Educational Testing Service as Head of Statistical Analysis. In 1950 he moved to the Research Division where he remained until his formal retirement in 1982.

After his retirement Lord continued working until the 1985 automobile accident curtailed his professional activities. He had a life-long interest in contract bridge, achieving the rank of Life Master awarded by the American Contract Bridge League. In addition, he enjoyed the cultivation of orchids.

His 1946 marriage to Shirley Lord ended in divorce in 1973. He married Muriel Bessemer Lord in 1983. He is predeceased by a son, Steven, who died in 1961. In addition to his wife, he is survived by his sons John of Palmetto, Florida and Eric of Langhorne, Pennsylvania, and three stepchildren, Conrad M. Bessemer and Robert H. Bessemer of Pittsburgh, Diane Carnegie Bessemer of Seattle, and grandchildren.

Howard Wainer  
Martha Stocking  
Princeton, NJ  
February 11, 2000