

PROFESSIONAL ISSUES

Centennial Anniversary of Neal E. Miller

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Last year was the 100th birthday of Neal Miller. A truly versatile psychologist, Miller assumed various roles, including scientist par excellence, learning theorist, neuroscientist, teacher, and author. Investigative efforts led to discoveries in several diverse areas of psychology, including learning and motivation, psychotherapy, behavioral medicine, and biofeedback.

The committee's role is to initiate and guide the transaction of various activities that will represent Miller's contributions and support the integrative approach for the study of human nature.

Members of the committee are the following:

- **Niels Birbaumer**, professor of behavioral neurobiology and medical psychology, Tübingen University, Germany, and a recipient of the Albert Einstein World Award of Science of the World Cultural Council.
- **Ted Coons**, professor of psychology, New York University, who worked with Miller on investigations of behavioral responses to specific site stimulation. Ted is in the process of writing a book about the life and science of Neal Miller.
- **Barry Dworkin**, professor of neural and behavioral sciences, Penn State University, who worked with Miller on autonomic conditioning.
- **Bruce McEwen**, professor of psychology and head of the Laboratory of Neuroendocrinology at the Rockefeller University, with whom Miller pioneered psychological research on stress.
- **Arnon Rolnick**, clinical psychologist in private practice and at Ben Gurion University, Israel, head of the Accreditation Committee, Israeli Association for Applied Psychophysiology and Biofeedback. Arnon initiated this committee.
- **Ron Rosenthal**, psychologist in private practice and at Baptist and South Miami Hospitals, expert in neuromuscular retraining for stroke, brain injury, and orthopedic problems. Ron is a former student of Miller and is continuing the biofeedback path Miller initiated.
- **Ed Taub**, behavioral neuroscientist and professor at Columbia University, director of the Taub Training Clinic and CI Research Lab, and responsible for the development of constraint-induced movement therapy. Ed worked alongside Miller on research on the plasticity of the nervous system.

- **Paul Wachtel**, CUNY Distinguished Professor, City College and Graduate Center, City University of New York. Paul extended and expanded Miller's attempts to integrate psychoanalysis and learning theory.
- **Jay Weiss**, professor, Department of Psychiatry and Behavioral Sciences, Emory University School of Medicine. Jay worked with Miller on stress and its effects on health and behavior.

The NealMiller.org Web Site

The NealMiller.org site is intended to act as a major reservoir of his work and the work of those who have followed in his footsteps. The site is composed of seven central categories that represent the various areas of Neal Miller's contributions to the applied and theoretical field of psychology.

- The first page is an overview of Miller's biography and scientific activities. Based on Ted Coons' to-be-published book, a map of Miller's history and activity is featured.
- The second page, titled "Learning and Motivation," focuses on his work in this area, which was both extensive and groundbreaking. In collaboration with John Dollard, Miller revealed four rudimentary aspects of instrumental learning: drive, cue, response, and reward. Furthermore, Miller showed that fear can be a learned response and can operate as a reinforcing agent.
- In the area of psychoanalysis, Miller examined Freudian concepts from a learning perspective, specifically stimulus-response theory. Notions including frustration and aggression, approach-avoidance conflict behavior, and displacement were meticulously investigated and finally explained via learning terminology. This section provides a detailed description of Miller's foray in to psychoanalysis and reveals the process used in his attempt to integrate psychoanalysis and learning theory. In addition, a list of published works related to this content is featured.
- The section on behavioral medicine describes the results of Miller's shift in attention to a focus on physiology. Latter years were devoted to the investigation of behavioral factors upon which stress is contingent, the role of learning on psychosomatic illness, and the applicability of biofeedback.

- The biofeedback page explains how Miller's question regarding the possibility of influencing autonomic, involuntary responses through learning principles led to the birth of biofeedback. The path Miller followed is recounted, and the ongoing pertinence of this question and related research is discussed.
- Neuroscience is a section concerning Miller's early work that led to the discovery of specific brain sites, such as reward-escape sites and how he raised awareness of the importance of research on behavioral responses to pharmacological agents.
- Students: In this section, we list the impressive list of Miller's students and collaborators. This page also hosts testimonials that his students wrote specifically for our site.

The Centennial Anniversary Celebration Committee would like to invite readers to visit <http://www.nealmiller.org>, to browse the site, and to share in our appreciation of the legacy left by Neal Miller. We would like to express our interest in your ideas regarding celebratory activities that could be conducted to commemorate Neal, so please write

to the committee (neal.miller.anniversary@gmail.com) with suggestions. In addition, you are encouraged to post material that is related to, or follows on from, Miller's query into the application of learning principles to gain autonomic control.



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