In memoriam: Martine T. Orne, 1927-2000

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To link to this article: http://dx.doi.org/10.1080/00207140008410365

Published online: 31 Jan 2008.

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Martin T. Orne, one of the leading figures in the modern era of hypnosis research and editor of this journal from 1961 to 1992, died of cancer on February 11, 2000, at the age of 73. Orne made classic contributions to our knowledge of the nature of hypnosis and its applications to psychotherapy and behavioral medicine. From his distinguished academic bases, first at Harvard and later at Pennsylvania, he helped bring new status to the scientific study of hypnosis and vigorously promoted its use in medicine and psychotherapy. Martin Orne is survived by his wife, Emily Carota Orne, a research psychologist who was his longtime collaborator at the Unit for Experimental Psychiatry; their son, Franklin; and daughter, Tracy.

Martin Orne was born in Vienna on October 16, 1927, into a family of physicians; his father, Frank Orne, was a surgeon, and his mother, Martha Brunner-Orne, was a psychiatrist who made distinguished contributions to the understanding and treatment of alcoholism. In 1938, escaping the Nazi onslaught, the family emigrated to the United States, settling first in New York City, where Martin attended the Bronx High School of Science, and later in Boston. Orne received his bachelor’s degree from Harvard in 1948 with a major in social relations, an innovative department that cut across the fields of psychology, sociology, and anthropology and which cemented his commitment to a broad, interdisciplinary approach to human behavior. Orne received his medical degree from Tufts in 1955 and his doctorate in psychology from Harvard in 1958.

After completing his medical internship at the Michael Reese Hospital in Chicago, Orne returned to Harvard for his psychiatric residency at the Massachusetts Mental Health Center in Boston. From 1960 to 1964, he was senior research psychiatrist at MMHC. In 1964, he moved to the University of Pennsylvania, where he held appointments in both the Department of Psychiatry and the Department of Psychology. At Penn, he directed the Unit for Experimental Psychiatry at the Institute of the Pennsylvania Hospital; following reorganization of the hospital in 1995, the Unit moved to facilities within Penn’s School of Medicine. At the time of his death, Orne was professor emeritus in the Department of Psychiatry and adjunct professor emeritus in the Department of Psychology.

Throughout his career, Orne was primarily concerned with the objective, scientific study of private, subjective experience, and hypnosis was the perfect vehicle for pursuing this topic. Many of Orne’s papers on hypnosis were critical of popular, long-standing claims about hypnosis. His bachelor’s thesis, which remains a classic, compared subjects’ produc-
tions during hypnotic age-regression to artifacts from their actual childhood. Together with later work in Orne's laboratory by Donald O'Connell, this line of research showed convincingly that age-regression did not necessarily revive childhood memories or replace adult modes of psychological functioning with those of childhood. Another classic experiment, conducted with Frederick J. Evans, showed that antisocial and self-injurious behavior, apparently produced by hypnotic suggestion, was actually a response to the demand characteristics of the experimental setting in which the suggestions were given and had nothing to do with hypnosis per se. Similarly, Orne and Evans showed that hypnosis did not enable subjects to transcend normal limits of human performance.

There were positive contributions, too. Orne's doctoral dissertation introduced the concepts of both trance logic and the real-simulator design. This paper shaped much of the agenda of hypnosis for research for more than two decades. He sponsored the efforts, by Ronald E. Shor and Emily Carota Orne, to develop the Harvard Group Scale of Hypnotic Susceptibility, a group-administered adaptation of the Stanford Hypnotic Susceptibility Scale, Form A, which injected substantial economies into the assessment of hypnotizability, and permitted investigators with limited resources to enter the field. He also made other contributions to the assessment of hypnotizability. A series of papers—one with Fred Evans and Peter Sheehan, another with Edgar Nace and the late Gordon Hammer—shed new light on the nature of posthypnotic suggestion. A clever adaptation of the double-blind paradigm permitted him and his colleagues, Fred Evans and Thomas McGlashan, to demonstrate convincingly that hypnotic analgesia was not merely a variant on the placebo response. He also sponsored work by Helen Pettinati and John Kihlstrom that uncovered new features of posthypnotic amnesia.

Orne's "debunking" experiments led some colleagues to count him as a skeptic, whereas his concept of trance logic and search for real-simulator differences led others to view him as a traditional "state" theorist. In fact, Orne's view of hypnosis was subtle and nuanced. One of his mentors at Harvard, Robert W. White, had written a classic paper arguing that hypnosis was best construed as an altered state of consciousness that took place within a situation characterized by high levels of motivation. Similarly, Orne characterized hypnosis as an alteration in consciousness that took place in a particular interpersonal context. Although Orne was primarily concerned with distinguishing the "essence" of cognitive changes associated with hypnosis from "artifacts" introduced by the social context in which hypnosis took place, his real position with respect to altered consciousness and social influence in hypnosis is best characterized as "both/and" rather than "either/or" or "nothing but."

Largely as a result of his hypnosis research, Orne developed a view of research subjects as intelligent, sentient beings who sought to understand the situation they were in and to behave in accordance with that under-
standing, as it interacted with their own personal goals. His *American Psychologist* paper expounding the notions of “demand characteristics” and “ecological validity” is one of the most widely cited papers in the psychological literature. Orne was proud that his ideas had become so commonplace that they frequently appeared in textbooks without reference citations. Although he could be a trenchant critic of research that treated experimental subjects as passive receptacles for stimulus inputs, he was dismayed that some social psychologists, of a more nihilistic bent, misused them to undermine experiments whose results were inconvenient or even to dismiss laboratory research in its entirety. Orne’s argument that proper interpretation of research required the investigator to view the experimental setting from the subject’s point of view is fairly seen as a precursor to the establishment of the cognitive point of view in social psychology generally; its influence extended far beyond social psychology and influenced research in cognitive psychology, as well as linguistic theories of conversational pragmatics.

From Orne’s point of view, experimental settings have special features that are not necessarily found in the world outside the laboratory. Therefore, researchers must always be concerned with the “ecological validity” of their experiments; they cannot assume that findings obtained in the laboratory would automatically generalize to the world outside. Experimenter bias could be eliminated by keeping experimenters blind to the hypothesis being tested, but demand characteristics were inherent in the experimental situations themselves. They could not be controlled, only evaluated. For this reason, the real-simulator design was not intended as an experimental control in the usual sense but rather as a check on the experiment itself. Orne and Evans vividly demonstrated this point with a famous pair of studies on “the disappearing hypnotist.” In the first study, the simulators clearly showed that they had caught on to the purposes of the experiment. Based on the simulators’ postexperimental comments, Orne and Evans improved their design so that it would adequately test what hypnotic subjects would do. Once an appropriate experimental situation had been created, in which subjects were unlikely to see through the experimental procedure, additional control conditions could determine why the reals behaved as they did.

Orne’s focus on the objective study of subjective states such as hypnosis stimulated a lifelong interest in psychophysiology. He studied the physiological correlates of hypnotically suggested emotions and physiological responses to painful stimuli during hypnotic analgesia, and he convincingly demonstrated that some electrodermal correlates of hypnosis were artifacts of relaxation. Outside hypnosis, he studied the physiological detection of deception, alpha-wave biofeedback, and sleep. Since 1979, he engaged in an extensive collaboration with David Dinges on the nature of napping and the effects of short and long periods of sleep on human performance.
Orne was trained as both a researcher and a clinician, and he never acquiesced to the "split" between science and practice. From the beginning to the end of his career, he promoted the appropriate and effective use of hypnosis in the clinic, but he insisted that clinical practice should be grounded in empirical research. He was a strong advocate of the assessment of hypnotizability in patients. In a study with Fred Frankel, he found some phobic patients to be highly hypnotizable and suggestible and thought it likely that the mental mechanisms involved in their symptoms were similar to those responsible for hypnosis. In his clinical work as in his laboratory research, Orne balanced enthusiasm about hypnosis with caution. He was a staunch advocate of the use of hypnosis to control pain and cautiously optimistic about the psychosomatic effects of hypnotic suggestion. Much of his early work on hypnosis was motivated by an interest in self-regulation techniques that could counteract stress and fatigue. Most recently, he became involved in a project examining the effectiveness of self-hypnosis and meditation for the management of stress and pain in sickle cell anemia.

In his twin roles as clinician and researcher, Orne was a central figure in the debate, still current, over the use of hypnosis to recover forgotten memories. His 1979 paper, "On the use and misuse of hypnosis in court," published in this journal, set the terms for a debate over forensic hypnosis. Subsequently, he and his colleagues conducted a series of laboratory studies that revealed the limitations of hypnotic suggestions for hypermnesia. Orne's view that hypnosis is unduly suggestive and could lead witnesses to confabulate—or, at least, to have undue confidence in their memories—was favorably cited in more than 30 state supreme court decisions, as well as by the United States Supreme Court. He led a committee of the American Medical Association, which established standards for the forensic use of hypnosis. The "Orne guidelines" were essentially adopted by the Federal Bureau of Investigation and other law-enforcement agencies. When clinical practitioners began to use hypnosis in psychotherapy with victims of trauma, Orne warned against the view that hypnosis was a "royal road" to repressed or dissociated memories and cautioned that "recovered memories" of trauma, no less than other clinically or forensically important memories, required independent corroboration. To the end of his life, he was actively involved in the debate over the validity of recovered memory therapy.

Orne's commitment to bridging the laboratory and the clinic led him to serve as an expert witness in a number of cases involving issues broadly related to hypnosis. Most famous, perhaps, was his evaluation of Kenneth Bianchi, the accused "Hillside Strangler," which was documented in "The Mind of a Murderer," an award-winning BBC documentary. Based on his experience with simulating subjects, Orne was able to undermine Bianchi's "multiple personality" defense. In the 1980s, as the dissociative disorders regained their place in the diagnostic
nomenclature, and case reports of multiple personality rose to epidemic proportions, Orne took a skeptical stance. Reminding his colleagues of the 19th-century debate between the Salpetriere and the Nancy schools of hypnosis, he underscored the role of suggestion in producing the phenomena of hysteria and dissociation and warned inexperienced practitioners to beware of iatrogenesis.

Orne's contributions to clinical practice went far beyond the use of hypnosis. Throughout his career, he sought to bring the behavioral and social sciences to bear on mental illness and its treatment. His view of demand characteristics led him to propose that "anticipatory socialization," teaching patients how their treatment would proceed and what was expected of them, would facilitate progress in psychotherapy. Teaching patients what to expect also demonstrated his understanding of the patient's predicament in an unfamiliar situation. Just as Orne viewed experimenters and subjects as collaborators in research, so he regarded treatment as an informal partnership between doctor and patient—an approach unusual in a time when Olympian distance and neutrality were the hallmarks of psychoanalytic therapy. Orne's positive view of placebo effects in medicine, and nonspecific factors in psychotherapy, led him to propose that effective hope, or patients' beliefs that they would get well, was an active ingredient in successful psychotherapy.

Orne broke new ground for patients' rights and professional ethics when he released tapes of the late poet Anne Sexton's psychotherapy sessions to her biographer, Diane Middlebrook. The tapes had been made for therapeutic purposes, with Sexton's knowledge and consent. This was another of Orne's therapeutic innovations: when patients forgot what had transpired during the therapeutic hour, some therapists might have gone over the same ground again, whereas others would have pursued the psychodynamics of the forgetting. Under the same circumstances, Orne pragmatically taped sessions for patients to review at home. When Orne's move from Harvard to Penn required her to transfer to another therapist, Sexton had encouraged him to use the tapes in any way that might help other people. Middlebrook thought that the therapy tapes would shed unique light on Sexton's life and art, and Sexton's daughter and literary executor had given her consent to this use. Against the view of some colleagues (echoed in *The New York Times*) that he had compromised patients' assumption of therapist confidentiality, Orne persuasively argued that patients had a right to control their own therapeutic records.

In addition to his substantive empirical, methodological, and theoretical contributions to the study of hypnosis, Orne will be remembered for his longtime service as editor-in-chief of this journal. In that capacity, he shepherded its transition from house organ of a small professional society to the leading venue for hypnosis research, with a citation index rivaling that of the best journals in psychology and medicine. He was a
devoted editor, who involved his laboratory colleagues in the editorial process and contributed his own financial resources to making the journal succeed. Orne had an unerring eye for what was significant about a study, and he worked tirelessly with authors to make each submitted paper acceptable (if that were at all possible) and to insure that each accepted paper was as good as it could possibly be before it went to press. His magisterial editorial letters went far beyond critiques of the paper at hand to offer detailed suggestions for improvement and ideas for follow-up research—there were master's theses and doctoral dissertations in many of those letters. He often took it as a personal defeat when he had to reject a paper. The result of his efforts was not only a distinguished journal but also the recruitment into the field of a number of clinicians and experimentalists who might otherwise have been lost to hypnosis.

Martin Orne was a Rantoul Scholar at Harvard, a Fulbright Scholar in Australia (where he did his work on antisocial behavior and hypnosis), and Honorary Member of the Royal Society of Medicine. During his career, he received a number of awards for his work in hypnosis, including the Benjamin Franklin Gold Medal awarded by the International Society of Hypnosis. He was a Fellow of both the Society for Clinical and Experimental Hypnosis and the American Society for Clinical Hypnosis and served as President of both SCEH (1971-1973), and the International Society of Hypnosis (1977-1979). In addition to these honors, Orne received several awards recognizing his general contributions to psychology and psychiatry: the Distinguished Scientific Award for Applications of Psychology from the American Psychological Association, the James McKeen Fellow Award in Applied Psychology from the American Psychological Society, and the Seymour Pollack Award from the American Academy of Psychiatry and the Law. He received honorary degrees from John F. Kennedy University and Hofstra University.

In 1961, Orne established the Institute for Experimental Psychiatry Research Foundation, a public charity that promotes research on the role of mind and behavior in health, well-being, and safety. Donations to the Institute may be made in Martin's memory:

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