

ERNEST ROPIEQUET HILGARD



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ERNEST R. (JACK) HILGARD, one of the leading psychologists of the twentieth century, died in Palo Alto, California, on 22 October 2001. He was ninety-seven years of age and was professor emeritus in the Department of Psychology at Stanford University.

Hilgard was born in Belleville, Illinois, on 25 July 1904, to George Engelmann Hilgard, a physician, and Laura Ropiequet Hilgard. After taking a bachelor's degree in chemical engineering from the University of Illinois (1924), and two "gap years" working for the national office of the YMCA and studying social ethics at Yale Divinity School, he turned toward psychology, which he once characterized as a "Hegelian synthesis" between the science of chemistry and the nonscience of religion. He received his doctoral degree from Yale in 1930, with a dissertation on conditioning supervised by Raymond Dodge. While at Yale he met Josephine Rohrs, who was pursuing doctoral studies in developmental psychology with Arnold Gessell; they were married in 1931. While Josie completed her graduate training, Jack served as an instructor at Yale and did some postdoctoral work.

In 1933 the Hilgards moved to Stanford, where Josie enrolled in medical school and later taught in the psychiatry department. Except for sabbaticals and a period of government service during World War II (Jack was in the Office of War Information and conducted surveys for the Office of Civilian Requirements), the Hilgards remained on the Stanford faculty for their entire careers. Jack served as department chair (1942–51) and graduate dean (1951–55). In the latter post, he was instrumental in bringing the Center for Advanced Study in the Behavioral Sciences to the Stanford campus. Hilgard formally retired in 1969, but he maintained an active laboratory for another ten years. Josephine Rohrs Hilgard died in 1989. They are survived by a son, Henry, a daughter, Elizabeth, five grandchildren, and six great-grandchildren.

Hilgard is perhaps best known for his contributions to our understanding of learning processes. In his earliest research, on the conditioned eyeblink, he sought to show that conditioned responses, traditionally considered to be unconscious and automatic, could be brought under conscious, voluntary control. With Donald Marquis he wrote *Conditioning and Learning* (1940), which quickly became the standard text in the field. Hilgard and Marquis coined the term "classical conditioning," as distinct from "instrumental" or "operant" conditioning. A revision of the book, by Gregory Kimble, appeared in 1961. A later text, *Theories of Learning* (1948), written at the high point of radical behaviorism, anticipated the "cognitive revolution" that would replace the functional behaviorism of Watson and Skinner with a fuller appreciation of mental life. The book created a central course in the undergraduate psychology curriculum in the 1950s and 1960s, and served as

a model for theory-oriented survey textbooks in personality, developmental, and social psychology. The "theories" book went through five editions (later editions were coauthored with a Stanford colleague, Gordon H. Bower). In these texts, Hilgard introduced the editorial practice of indicating the pages on which items listed in the bibliography were cited, making the usual author index much more useful for scholarship.

Hilgard was devoted to the introductory psychology course. With his knack for seeing the connections among diverse areas of inquiry, his proclivity for "psychologizing," and a real talent for expository writing, Hilgard's *Introduction to Psychology* (1953) became the most popular psychology textbook of its time, and the standard to which other, competing texts were (and still are) compared. Beginning with the fourth edition (1967), Jack was joined by Richard C. Atkinson and later Rita L. Atkinson, who had been his colleagues at Stanford. Now in its fourteenth edition (2003), the book continues as *Atkinson and Hilgard's Introduction to Psychology*. This introductory text was so successful financially that its publisher offered to publish any book Hilgard chose to write. The result was the magisterial *Psychology in America: A Historical Survey* (1987). Unique among history texts, which tend to focus on the various "schools" of psychology, Jack's book provides detailed narratives of the various subfields of psychology, written by an individual who lived the history about which he wrote.

Returning to Stanford's psychology department following his tenure as graduate dean, Hilgard resolved to revamp his teaching and research entirely. He threw out all of his lecture notes, and—except for the introductory course—resolved to teach only courses he had never taught before, such as motivation and abnormal psychology. He also took up an interest in hypnosis as a sort of laboratory model for the study of psychodynamic processes. This was not entirely unfamiliar territory, because his work on learning had been primarily concerned with the relations between conscious and unconscious processes (foreshadowing the contemporary interest in automaticity).

At that time, in the late 1950s and early 1960s, hypnosis was going through one of its periodic revivals, and Hilgard quickly became a leader in the field. The Stanford Hypnotic Susceptibility Scales (1959, 1962, 1963, devised in collaboration with André Weitzenhoffer), put hypnosis research on a firm quantitative basis and made it possible for different laboratories to systematically replicate and extend each other's research. More than forty years later, the Stanford scales remain the "gold standard" for measuring individual differences in hypnotic "talent," and models of performance-based psychological assessment. Hilgard's

monograph, *Hypnotic Susceptibility* (1965), summarized what had been learned about hypnosis from the standardization of the Stanford scales. Josie's own monograph, *Personality and Hypnosis: A Study of Imaginative Involvement* (1970), coupled test results with careful clinical interviews to relate hypnotizability to other aspects of personality and development.

Hilgard also initiated an extensive research program devoted to hypnotic analgesia—a topic chosen both for its centrality to hypnosis and its practical utility. Along the way, he made fundamental contributions to our understanding of sensory and perceptual aspects of the phenomenon. Because pain is essentially a subjective experience, Hilgard argued convincingly that traditional psychophysical procedures, such as magnitude estimations, were superior to more “objective” physiological measures; he confirmed this claim empirically by showing that subjective ratings covaried more lawfully with stimulus intensity than did physiological responses. Together with some colleagues from the medical school, Hilgard showed that hypnotic analgesia is not reversed by administration of naloxone, indicating that the effect is not produced by the release of endogenous opiates. In the course of his research on analgesia, Jack developed the “hidden observer” technique for studying the “covert” representation of pain and other experiences, outside of phenomenal awareness. He and Josie reviewed the relevant clinical literature in their book, *Hypnosis in the Relief of Pain* (1975), and Josie subsequently published an account of her clinical study of *Hypnotherapy of Pain in Children with Cancer* (with Sam LeBaron, 1984).

The Stanford hypnosis research laboratory remained active for more than twenty years, and became a sort of Mecca for researchers in the field. Jack particularly liked to take in promising new Ph.D.'s, and give them the opportunity to re-do their dissertations “and get it right.” In 1977–78, as the laboratory was closing, he invited a number of colleagues to join him and Josie for a valedictory year at Stanford. The weekly staff meeting provided an opportunity for the participants to share research and ideas with a much larger group of intrinsically interested colleagues than they could ever have found in their home departments. They also included demonstrations of various hypnotic phenomena, including some that are rarely studied, with “virtuoso” subjects. True to form, Jack wrote up a set of minutes, and distributed it at the end of the year.

In addition to more than a hundred papers on hypnosis and related phenomena, the laboratory produced more than a hundred *Hypnosis Research Memoranda* (originally the *Hawthorne House Research Memoranda*, named for the campus building where the laboratory was

initially housed). These less formal papers documented research methods, summarized preliminary data analyses, and reported incidental findings that might not make it to formal publication. A complete account of the work of the laboratory, including a listing of staff, students and postdoctoral fellows, sabbatical visitors, publications, and research memoranda, is provided in *A Saga of Hypnosis: Two Decades of the Stanford Laboratory of Hypnosis Research, 1957-1979*. This privately published document also served as the final report of research supported by Hilgard's long-standing grant for hypnosis research from the National Institute of Mental Health.

In his contribution to the *History of Psychology in Autobiography* (1974), Hilgard lamented that, for all his many papers and books, he had not made a substantial theoretical contribution to his discipline. This was undue modesty. Although Hilgard never proposed an original theory of learning, through the successive editions of *Theories of Learning* he was a forceful advocate for a cognitive interpretation of learning processes that was very much ahead of his time. Even his introductory text contained important theoretical insights, particularly with respect to the relations between emotion and motivation, and the contrast between developmental and interactive modes of behavior analysis.

Still and all, Hilgard's major theoretical contribution came at the very end of his career, with the "neodissociation" theory proposed in *Divided Consciousness: Multiple Controls in Human Thought and Action* (1977). Inspired by clinical studies as well as experimental research, and reviving an interest in controlled and automatic processes that characterized his very earliest work on conditioning, Hilgard proposed that the unity of consciousness was an illusion. Ranging widely over both "normal" and "abnormal" psychology, Hilgard identified a number of phenomena in which, by virtue of an amnesia-like barrier, we either have no phenomenal awareness of our thoughts or actions, or no voluntary control over them. The book is an important milestone in the "consciousness revolution" in psychology and neuroscience. It also revived interest within psychiatry and clinical psychology in such "dissociative" disorders as hysteria and multiple personality disorder, as well as in a non-Freudian approach to the unconscious. In one sweep, uniting hysteria, hypnosis, dreams, and even the Ouija board, Hilgard made the notion of unconscious mental life scientifically respectable once again.

Jack Hilgard received virtually every honor that can come to an American psychologist, including the Warren Medal of the Society of Experimental Psychologists (1940) and the presidency of the American Psychological Association (1949), which also gave him its Distinguished

Scientific Contribution Award (1969), and the Gold Medal of the American Psychological Foundation (1978)—this last for his “scientific contributions to nearly every field of psychology.” Hilgard was elected to membership in the National Academy of Sciences, the National Academy of Education, and the American Academy of Arts and Sciences, as well as the American Philosophical Society. On the occasion of his ninetieth birthday (July 1994), *Psychological Science*, the flagship journal of the American Psychological Society, published a retrospective feature review devoted to Hilgard’s life in psychology, together with an appreciation of his contributions to learning theory, hypnosis, the introductory course, clinical psychology, and history. As of this writing, he has been the only psychologist to receive such treatment. In 2002, a survey listed him among the hundred most eminent psychologists of the twentieth century. Hilgard was also president of the Society for Clinical and Experimental Hypnosis (1979–81) and the International Society of Hypnosis (1973–76), which awarded him the Benjamin Franklin Gold Medal (1980). The hypnosis community fully recognized that his preeminence within American and international psychology strengthened the legitimacy of what they were doing. Although he was normally a humble and gracious man, he once confessed that “[p]eople stand up when I walk into a room—and I have to admit that I like it, a little.”

Not many academics have produced major scholarly treatises—arguably their best work—ten and twenty years after their formal retirement. But as devoted as he was to scholarly activities, Jack Hilgard had an enormous and contagious zest for life, and took particular pleasure in his family. In his mid-seventies, he led some visitors on a hike through hilly, wooded land he had previously owned and donated for use as a park, leaving his younger colleagues breathless. At about the same time, he was observed demonstrating the proper technique on his grandchildren’s pogo stick. In his nineties, he traveled to Montana to climb Mount Hilgard. A lifelong political liberal, he supported consumers’ cooperatives, peace movements, teachers’ unions, prisoner education projects, and the American Civil Liberties Union. In his autobiographical essay, he wrote, “The question may naturally be asked whether or not . . . my time has been well spent . . . in matters taking me away from my desk and laboratory. All I can say is that nobody forced me to do these things, and what I did, I enjoyed doing.”

Elected 1969

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