

Hilgard E R & Marquis D G. *Conditioning and learning*.
New York: Appleton-Century, 1940. 429 p.
[Stanford University, CA and Yale University, New Haven, CT]

This book primarily exposes the facts and theories of conditioning as applied to the understanding of learning. A basic distinction is made between classical and instrumental conditioning. The results of conditioning are used to explain relationships in other types of experiment. [The *SSCI*® indicates that this book has been cited in over 180 publications since 1966.]

Ernest R. Hilgard
Department of Psychology
Stanford University
Stanford, CA 94305-2099

January 20, 1988

The climate of psychology in the 1930s was right for a critical exposition of the relationship between the facts of the conditioned response and of the theories using conditioning in relation to learning. The appearance of I.P. Pavlov's book in 1927¹ led to experimenting on conditioning rather than theorizing with a weak database. Clark L. Hull, initially at Wisconsin but later our colleague at Yale, always referred to Pavlov's book as "that great book." He was soon designing his experiments in relation to his own hypothetico-deductive system, with his first published theoretical paper appearing in 1929,² with many more to follow.

Donald G. Marquis and I had been deep into our own experiments at Yale using dogs and monkeys, with and without surgical removal of parts of the cortex. Our experimental method involved eyelid conditioning, following our introduction of the airpuff applied to the cornea as an unconditioned stimulus.³

My move to Stanford in 1933 separated us from further collaboration in the laboratory and thus led to our writing a book together.

Collaboration is difficult at best, and at a distance it is even harder, as we soon found out, with Don in Connecticut and me in California. We had reports still to prepare for publication before starting on the book. I spent the summer of 1934 preparing a précis of about 100 pages in order to establish a "story line" to help us to divide up the task. We then agreed on the chapter titles, with half of the draft chapters to be done by Don and half by me. The whole process took six more years, delayed a little by Don's Rockefeller Fellowship that took him to England in 1935-1936.

Don was very bright and scholarly, but he took on numerous administrative responsibilities and had something of a writing inhibition, despite his skill when he got around to it. It was a little exasperating to have my chapters almost completed before his began to arrive, but in the end all worked out well. His physiological background was far superior to mine, and one of the better chapters, on neurophysiological mechanisms, was his.

When Gregory A. Kimble prepared the expanded and updated second edition in 1961,⁴ our names were made part of the title—a distinction usually reserved for deceased authors. This meant simply that the revision was with the understanding that it had been prepared with our permission but independent of consultation with us and had the impress of a new author.

The interest in Hull's theoretical papers that were played up in the book has decreased, but the enthusiastic disciples of him and K.W. Spence have kept the interest alive.⁵

1. Pavlov I P. *Conditioned reflexes*. (Anrep G V, trans.) London: Oxford University Press, 1927. 430 p. (Cited 1,425 times since 1966.)
2. Hull C L. A functional interpretation of the conditioned reflex. *Psychol. Rev.* 36:498-511, 1929.
3. Hilgard E R & Marquis D G. Conditioned eyelid responses in monkeys, with a comparison of dog, monkey, and man. *Psychol. Monogr.* 47:186-98, 1936.
4. Kimble G A. *Hilgard and Marquis' Conditioning and learning*. New York: Appleton-Century-Crofts, 1961. 570 p. (Cited 720 times since 1966.)
5. Amsel A & Rashotte M E, eds. *Mechanisms of adaptive behavior: Clark L. Hull's theoretical papers with commentary*. New York: Columbia University Press, 1984. 533 p.