

Addendum to Retrospective Feature Review

E.R. Hilgard (b. 1904)

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To characterize Hilgard properly is to coin a word: synoptician. Only rarely has psychology been favored by someone whose view of the field is as comprehensive as his.

A longtime member of the National Academy of Sciences, Hilgard established his reputation in the field of conditioning and learning. His early book on the topic, written with Donald Marquis, quickly became the standard textbook in the field (Hilgard & Marquis, 1940). They introduced the distinction between classical and instrumental conditioning. In his research, Hilgard (1936a, 1936b, 1937) showed that conditioned behaviors, previously considered unconscious and automatic, could be placed under deliberate, conscious control. His later book, *Theories of Learning* (Hilgard, 1948) created a central course in the psychology curriculum, establishing a precedent for theory-oriented survey courses in developmental, personality, and social psychology.

Hilgard is an important figure in the transition from learning theory to cognitive psychology. In the first edition of *Theories of Learning*, Hilgard distinguished between a behavioral psychology focusing on motor behavior and associations and a cognitive psychology emphasizing perceptions and thoughts. Rejecting the behaviorists' "abhorrence of the subjective" (p. 13), he laid the foundation for the cognitive revolution by his emphasis on the role of ideas as mediators between stimulus and response, and by his willingness to treat phenomenal experience as scientifically respectable.

While agreeing that animal research was relevant to the human case, Hilgard (1948, p. 329) argued for a reversal of Lloyd Morgan's canon: Only if a process demonstrable in human learning can also be demonstrated in lower animals is the comparative method useful. But at the same time, he extended the cognitive

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At least one reader of *PS* noted a conspicuous omission from the collection of eminent psychologists included in E.R. Hilgard's Retrospective Feature Review of *A History of Psychology in Autobiography* in the March 1993 issue (*PS* 4(2), 1993, pp. 70–80). We heartily endorse, and present here, this addendum to the review, contributed by John F. Kihlstrom.

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point of view to the understanding of learning and behavior in nonhuman animals. Thus, he interpreted the organism's response on the first learning trial as a provisional try rather than merely the product of preexisting habits and innate behavioral tendencies. From his point of view, both human and nonhuman learners are engaged in problem solving and hypothesis testing.

Hilgard was also an early exponent of experimental psychopathology, uniting the study of normal and abnormal mental processes, and has consistently sought what clinical material could contribute to psychological theory. Together with his colleagues, he promoted the use of conditioning techniques for the study of both organic and functional psychological disorders, anticipating research on blindsight and the cognitive unconscious (Cohen, Hilgard, & Wendt, 1933; Hilgard & Marquis, 1940, pp. 296–299; Marquis & Hilgard, 1936, 1937). The second edition of *Theories of Learning* (Hilgard, 1956) construed Freudian psychoanalysis as a learning theory (see also Hilgard, Kubie, & Pumpian-Mindlin, 1952). Throughout his career, Hilgard has been concerned with emotion and motivation as well as cognition (Hilgard, 1962, p. 162; 1980). His early interest in the effect of unconscious mental contents and processes on experience, thought, and action eventually led him to the experimental study of hypnosis (Hilgard, 1965), which in turn led him to develop the neodissociation theory of divided consciousness (Hilgard, 1977/1986).

Hilgard's career has spanned the development of psychology as a science and a profession. Successive generations of budding psychologists have cut their teeth on his introductory textbook (1953), which has now gone through 11 editions. His masterly summary of the development of American psychology (Hilgard, 1987) is both a history and a general textbook of psychology, and will remind future psychologists of their distinguished past. His contributions to organizational psychology—academic departments, national institutes, and professional societies—have left a lasting imprint on psychology as a science and as a profession.

REFERENCES

- Cohen, L.H., Hilgard, E.R., & Wendt, G.R. (1933). Sensitivity to light in a case of hysterical blindness studied by reinforcement-inhibition and conditioning methods. *Yale Journal of Biology & Medicine*, 6, 61–67.
- Hilgard, E.R. (1936a). The nature of the conditioned response: I. The case for and against stimulus substitution. *Psychological Review*, 43, 366–385.
- Hilgard, E.R. (1936b). The nature of the conditioned response: II. Alternatives to stimulus-substitution. *Psychological Review*, 43, 547–564.
- Hilgard, E.R. (1937). The relationship between the conditioned response and conventional learning experiments. *Psychological Bulletin*, 34, 61–102.
- Hilgard, E.R. (1948). *Theories of learning*. New York: Appleton-Century-Crofts.
- Hilgard, E.R. (1953). *Introduction to psychology*. New York: Harcourt, Brace, & World.
- Hilgard, E.R. (1956). *Theories of learning* (2nd ed.). New York: Appleton-Century-Crofts.
- Hilgard, E.R. (1962). *Introduction to psychology* (3rd ed.). New York: Harcourt Brace Jovanovich.
- Hilgard, E.R. (1965). *Hypnotic susceptibility*. New York: Harcourt, Brace, & World.
- Hilgard, E.R. (1980). The trilogy of mind: Cognition, affection, and conation. *Journal of the History of the Behavioral Sciences*, 16, 107–117.
- Hilgard, E.R. (1986). *Divided consciousness: Multiple controls in human thought and action* (rev. ed.). New York: Wiley-Interscience. (Original work published 1977)
- Hilgard, E.R. (1987). *A history of American psychology*. New York: Harcourt, Brace, Jovanovich.
- Hilgard, E.R., Kubie, L.S., & Pumpian-Mindlin, E. (Eds.). (1952). *Psychoanalysis as science*. Stanford, CA: Stanford University Press.
- Hilgard, E.R., & Marquis, D.G. (1940). *Conditioning and learning*. New York: Appleton-Century.
- Marquis, D.G., & Hilgard, E.R. (1936). Conditioned lid responses to light in dogs after removal of the visual cortex. *Journal of Comparative Psychology*, 22, 157–178.
- Marquis, D.G., & Hilgard, E.R. (1937). Conditioned responses to light in monkeys after removal of the occipital lobes. *Brain*, 60, 1–12.