

# Reflecting on Lifetimes of Achievement

November 27, 2013

As part of APS's 25th anniversary celebration, the Board of Directors is honoring 25 distinguished scientists who have had a profound impact on the field of psychological science over the past quarter-century. These individuals received the James McKeen Cattell Fellow Award, honoring a lifetime of significant contributions to applied psychological research, or William James Fellow Award, which recognizes their significant intellectual contributions to the basic science of psychology. In this issue of the *Observer*, the series concludes with profiles of these eminent scientists. Read about all of the 25th Anniversary award recipients at [www.psychologicalscience.org/25at25](http://www.psychologicalscience.org/25at25).



## Janellen Huttenlocher

*University of Chicago (retired)*  
*William James Fellow Award*

In a remarkable career, Janellen Huttenlocher has published on a range of research topics, including language, spatial coding in adults and children, quantitative development, and memory. She is a major figure, both within these subfields and in psychology at large.

Huttenlocher has been particularly interested in the role of the child's environment in the development of cognitive skills. One of her most famous findings is that the verbal behavior of parents and teachers not only determined children's vocabulary growth, but also their grammatical learning.

Her more recent work focused on the effects of early input on children's syntactic development.

Variations in the input children receive affect their levels of comprehension, she found. This work has important implications on how to increase children's language competence.

Huttenlocher has also conducted research on conceptual representation and memory, including the role of concepts in people's memories of events. She has found, for example, that people place an event within different chunks of time, like a time of day or day of the week, with each chunk considered separately. Her research reveals that if people are uncertain of an event's position within a chunk of time, they err toward the middle; asked what day they had been visited by an interviewer four days to 75 days earlier, the errors tended to run toward Wednesday. But they were able to distinguish whether the visit occurred on a weekday or weekend.

Professor Huttenlocher also has influenced generations of young psychologists through her mentorship and teaching. Her contributions to the future of psychology have been far-reaching and profound.



**Larry Jacoby**

*Washington University in St. Louis*

*William James Fellow Award*

Larry Jacoby is one of the world's foremost researchers on memory — specifically on the distinction between consciously controlled and automatic processes. The distinction is useful for better understanding of age-related differences in memory performance, and for improved diagnosis and treatment of memory deficits.

Under Jacoby's leadership, the Aging, Memory & Cognitive Control Lab in Washington University's psychology department has centered on questions related to cognitive control and to subjective experience. Other research extends the consciously controlled/automatic distinction to the domain of social psychology. Interest in subjective experience has led to investigations of memory illusions (e.g., memory for a prior encounter with a message making a room seem less noisy during a later encounter

with the same message).

Jacoby's studies indicate that automatic influences of memory and cognitively controlled recollection serve as separate forms or uses of memory. By placing the two forms of memory in opposition, he has separated their influence on a variety of memory tasks. As an example, results have revealed an age-related decline in ability to engage in cognitively controlled uses of memory to recollect specific events, along with a lack of age differences in automatic influences of memory. This combination of results helps to explain phenomena of aging that are often observed, such as older adults' repeatedly telling the same story to the same audience. In Jacoby's framework, this occurrence is due to automatic influences of memory (telling the familiar story) that are not successfully opposed by a cognitively controlled use of memory (recollecting that this story had recently been told to the same person). Young adults do not have this sort of problem because they have intact abilities of recollection. However, Jacoby and his group have shown that dividing attention and other manipulations that reduce cognitive control can produce dissociations in the memory performance of young adults that are similar to those found for older adults. More recent work has shown the importance of detection of change across circumstances for subsequent memory performance. As compared to a control condition, detection and recollection of change results in proactive facilitation whereas failure to detect change results in proactive interference.

As well as helping to further refine theorizing about memory, one of Jacoby's fundamental research goals is to develop procedures for diagnosis and treatment of memory deficits.



**Karen A. Matthews**

*University of Pittsburgh*

*James McKeen Cattell Fellow Award*

Karen A. Matthews is renowned for her many and multi-faceted contributions to the formation and growth of health psychology as a discipline. Her research accomplishments have included seminal work

on childhood antecedents of coronary heart disease risk, women's health and menopause, and the effects of socioeconomic status on health.

Early in her career, Matthews helped set the stage for future educational and training models through her participation in the landmark National Working Group on Education and Training in Health Psychology. At the University of Pittsburgh, she initiated an innovative Cardiovascular Behavioral Medicine training program that provided multidisciplinary training to many individuals who later became leaders in the health psychology field. She was the Director of the Pittsburgh Mind-Body Center, a joint center of the University of Pittsburgh and Carnegie Mellon University.

Matthews has represented the health psychology field in numerous high-profile leadership positions. She served as one of the first women presidents of the American Psychosomatic Society. She represented the health psychology and behavioral medicine fields as a member of the National Heart, Lung, and Blood Institute Advisory Council at the National Institutes of Health (NIH) and as part of the Advisory Board for the NIH Center for Scientific Research. She is a member of the Institute of Medicine. In all of these positions, she paved the way for acceptance of the field of health psychology by members of other disciplines in the behavioral and biomedical sciences.

Matthews' scientific contributions to health psychology have been broad ranging and nothing short of groundbreaking.

**Read Karen A. Matthew's reflection on ["Matters of the Heart: Advancing Psychological Perspectives on Cardiovascular Diseases"](#) in the November issue of *Perspectives on Psychological Science*.**