ABSTRACT

From Ebbinghaus (1885) forward, the study of cognition has been plagued by the problem of meaning. Indeed, Ebbinghaus invented the nonsense syllable to neutralize the effect of meaning on memory performance. It didn't work. Instead of neutralizing the effect of meaning on memory performance, we need to study the problem directly. Specifically, we need to understand how meaning is represented in the brain, and we need to understand the processing mechanisms that the brain uses to process those data. In the last 20 years, interest in Computing Science prompted by problems in document retrieval has led to ways to represent the meaning of words. I will describe two procedures for building a representation of meaning (LSA and BEAGLE) and a processing model for memory that captures archival data in several memory paradigms, including semantically based phenomena such as release from proactive inhibition (release from PI). Finally, I will sketch how the model might be extended to explain meta-memory knowledge problems.

BIOGRAPHY

Doug received his undergraduate education from the University of Toronto: ARTC, 1960; BA (Hons) 1964, and his graduate education from the University of Waterloo (MA, 1965; Ph.D., 1968). He joined Queen's Department of Psychology in 1968 and was appointed as a Full Professor in 1982. Doug took two negotiated leaves from Queen's, the first at the Center for Visual Science University of Rochester in 1971-72 and the second at the Zentrum für interdisziplinäre Forschung, Universität Bielefeld, Germany in 1984-85. Doug has served on the Board of the Canadian Psychological Association (Sept 2015-present), on the Board of the High-Performance Virtual Laboratory (2003 – 2014, now called the Centre for Advanced Computing). He has served as President and a member of the Executive of the Canadian Society for Brain, Behaviour, & Cognitive Science. He has also served as Editor of the Canadian Journal of Experimental Psychology (2009 – 2013), Associate Editor of Psychologische Forschung/Psychological Research 1988-2002, and Consulting Editor of Journal of Experimental Psychology: Human Perception & Performance. He has served on the NSERC grant selection committee. Doug has published more than 100 papers in refereed journals in Psychology, edited two books on High Performance Computing, and has presented about 200 papers at meetings and colloquia. He has been elected Fellow of both the Canadian Psychological Association and the American Psychological Association, and a Festschrift in his honour has been published in the Canadian Journal of Experimental Psychology.