COGNITIVE AND MEMORY PERFORMANCE: PATTERNS OF SIMULATED, MALINGERED AND NORMAL FUNCTIONING

Thomas G. Bowers (Penn State Harrisburg), Chair
Lisa Jenkins (University of North Carolina at Wilmington); Joel Myerson and Sandra Hale (Washington University)
Jacqueline Bichsel (Penn State Harrisburg)
Richard Williams (State University of New York at Potsdam)
Cynthia Freeman and Samuel Fischer (Penn State Harrisburg)

The detection of simulated or malingered cognitive impairment has become an important problem in neuropsychological and cognitive assessment. This symposium will review basic processes involved in normal and impaired memory functions. In addition, patterns of performance associated with either simulation or malingering of cognitive impairment will be described. The symposium participants are all conducting basic or applied research on cognitive functioning. Drs. Jenkins, Myerson and Hale will describe patterns of memory performance in healthy adults, with an emphasis on discriminating between normal and diseased aging. Dr. Bichsel will review the importance of distinguishing between verbal and nonverbal working memory in the prediction of cognitive ability. Dr. Williams will describe his findings on the verbal correlates of lying, and also review indices of malingering on the WAIS-R. Freeman and Fischer will describe their findings on attempts of individuals to simulate cognitive and memory impairment.

A. Thomas G. Bowers, Ph.D.
Penn State Harrisburg
777 W. Harrisburg Pike
Middletown, PA 17057
(717)-948-6063

B. Fax: (717)-948-6219
Email: dvo@psu.edu

C. Symposium

D. Will serve as session chair

E. Member
Cognitive and Memory Performance

Cognitive and Memory Performance: Patterns of Simulated, Malingered and Normal Functioning

A Symposium

Thomas G. Bowers
Psychology
Penn State Harrisburg
Lisa Jenkins
University of North Carolina at Wilmington
Joel Myerson and Sandra Hale
Washington University
Jacqueline Bischel
Penn State Harrisburg
Richard Williams
State University of New York at Potsdam
Cynthia Freeman and Sam Fischer
Penn State Harrisburg
Eastern Psychological Association,
Providence, Rhode Island
1999

Running head: COGNITIVE AND MEMORY PERFORMANCE
Abstract

Some researchers have been critical of neuropsychologists for the failure to develop methods sensitive to fabrication of neuropsychological impairment, and as a result neuropsychology has become increasingly concerned with the detection of malingering on neuropsychological tests. This symposium will review basic processes involved in normal and impaired memory functions, emphasizing genuine deterioration versus normal memory or cognitive changes. In addition, patterns of performance associated with either simulation or malingering of cognitive impairment will be described. The symposium participants are all conducting basic or applied research on cognitive functioning. Drs. Jenkins, Myerson and Hale will describe patterns of memory performance in healthy adults, with an emphasis on discriminating between normal and diseased aging. Dr. Bichsel will review the importance of distinguishing between verbal and nonverbal working memory in the prediction of cognitive ability. Dr. Williams will describe his findings on the verbal correlates of lying, and also review indices of malingering on the WAIS-R. Freeman and Fischer will describe their findings on attempts of individuals to simulate cognitive and memory impairment.
Changes in memory are considered the hallmark of normal aging, and virtually all older adults will acknowledge an age-related decrement in memory functions. However, contemporary research examining the effects of aging on different types of memory have revealed a more complex pattern of memory preservation and decline. Dr. Jenkins will discuss of how aspects of healthy older adults' memory performance can be illustrated, and how to use such information to distinguish between normal and diseased aging.

Dr. Bichsel will take a similar approach in her presentation, focusing on the utility of using working memory capacity as a predictor of cognitive abilities. While working memory is often used as a unitary entity, evidence indicates working memory has a verbal and visual component. Dr. Bichsel’s research has examined the relationships among individual differences in both visual and verbal working memory capacity, and performance on a cognitive ability measure that involved imaginary discovery. Overall, visual memory related more strongly than verbal working memory to discovery. In addition, differences in the relations of visual and verbal working memory to discovery were different for timed and untimed conditions. Visual working memory predicted discovery better than
verbal working memory in the timed conditions, but visual and verbal working memory were equally predictive of discovery in the untimed condition. These results reveal the importance of distinguishing between the predictive abilities of verbal and visual working memory, and the dangers of concluding that working memory is nonpredictive when using only a single measure.

Deception detection is an area of research which has grown recently, and improvements in our ability to identify when people are fabricating or exaggerating are important for clinical and forensic practice. Dr. Williams will discuss data from two lines of research conducted on deception and malingering. The first study investigates verbal and non-verbal correlates of lying. This research utilizes a low-structured, low-preparation format in which individuals tell both true and false stories. Differences between the true and false stories in terms of length of story, duration, non-verbal characteristics (e.g. speech rate) and motoric movements will be discussed. The second area of research is on the detection of malingering using psychometric tests, and Dr. Williams will summarize findings on various indices of malingering using the WAIS-R. Implications for clinical and forensic will be made.

Cynthia Freeman and Sam Fischer will review the results of their recently completed research on the detection of simulation and malingering in neuropathology. This program of research randomly assigned college volunteers
to either feign cognitive or memory impairment, or to perform normally. These patterns of performance were then compared to head injured individuals, and a small sample of known malingerers on neuropsychological tests. Patterns of strategies applied to attempt simulation indicated malingering or simulating subjects tended to perform more poorly than actual head injury subjects on some Category Test subtests, and they also overestimated the degree of memory impairment necessary to simulate neuropatholgy. Significant differences also emerged on response latency measures, and several qualitative differences also emerged. The results will be discussed in terms detection of simulation of neuropathology on neuropsychological tests.