



Title	Attentional Profiles of Patients with Closed-Head Injury (Abstract)
Author(s)	Chan, RCK; Hoosain, R; Lee, T; Fan, Y; Fong, D
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in which attention is directed to emotionally salient information and away from neutral stimuli.

Correspondence: Jennifer Vasterling, MHSL (COS6), VAMC, 1601 Perdido Street, New Orleans, LA 70112.

R. CHAN, R. HOOSAIN, T. LEE, Y. FAN, & D. FONG. Attentional Profiles of Patients With Closed-Head Injury.

Aim: This study aimed to examine the attentional profiles of patients with closed-head injury (CHI). A multicomponential perspective of attention was adopted, including intensity aspect of attention (sustained attention), selective aspect of attention (selective attention and divided attention), and attentional control processing. It was hypothesized that subtypes of patients with CHI may be identified according to different combinations of the deficits in these attentional components in both the laboratory and functional measures. *Method:* The sample consisted of 92 patients with CHI with a mean age and education of 37.63 ($SD = 9.62$) and 9.39 years ($SD = 3.38$) respectively. The sample comprised of 71.7% males. All participants received comprehensive measures of attention tapping sustained attention (Sustained Attention Response to Task, Backward Digit Span), selective attention (Stroop Test, Color Trails Test), divided attention (Paced Auditory Serial Addition Test, Symbol Digit Modalities Test), and attentional control (Tower of Hanoi, Six Elements Test). A 2-stage cluster analysis was conducted. Ecological measures of attention were used to validate the cluster solution. These included the Test of Everyday Attention, Cognitive Failures Questionnaire and Dysexecutive Questionnaire. *Results:* The findings indicated that there were 3 subgroups of patients with different combinations of attentional deficits, namely "mild deficits in intensity of attention," "deficits in selectivity of attention," and "general deficits in attention." MANOVA also indicated that these three clusters were statistically and clinically different from one another in terms of different attentional components proposed. These findings underscore the importance of clinical intervention for patients with different combinations of attentional deficits.

Correspondence: Raymond Chan, Department of Psychology, the University of Hong Kong, Pokfulam Road, Hong Kong, China.

C. RUFF, T. WOODWARD, A. THORNTON, & P. GRAF. Memory Deficits Reflect Distinct Attention Systems in Schizophrenia.

Memory deficits are common and marked among patients suffering from schizophrenia. In contrast to the memory problems associated with more focal brain disorders affecting the temporal lobes and diencephalic structures, the neuropsychological mechanisms of the deficit connected with schizophrenia are poorly understood. This holds especially true for the rarely examined domain of prospective memory, which is nevertheless vital for everyday functioning. We examined the relationship between performance on tests of different aspects of memory (prospective, retrospective verbal, and retrospective visual memory) and various indices of attentional performance. Participants were 23 patients suffering from schizophrenia according to DSM-IV criteria. The measures of retrospective memory were highly intercorrelated, and showed relationships to the performance on tests of vigilance, monitoring, and divided attention. The index of prospective memory was not associated with any of these measures, but instead with the performance on a paper-and-pencil and a computerized single-trial version of the Stroop task. This pattern of associations and dissociations suggests that a deficit in sustained cognitive control might be a crucial factor for the commonly observed retrospective memory problems of schizophrenic patients, but not for their prospective memory performance. Deficits in this memory function seem instead linked to disturbances of the ability to disengage from salient features of the situation. Correspondence: Allen Thornton, Department of Psychology, Simon Fraser University, Burnaby, BC V5A 1S6, Canada.

J.L. WOODARD, B.N. AXELROD, K.D. SHANNON, & S.E. BO-WEN. Value of Signal Detection Theory Indexes for Wechsler Memory Scale-III Recognition Measures.

Recognition subtest score calculations in the Wechsler Memory Scale-III (WMS-III) focus only on correct responses (hits and correct rejections) to

the neglect of false alarm (FA) errors. In contrast, signal detection theory (SDT) indexes analyze both hits and FA to provide indexes of discrimination between targets and distractors (d') and response bias (c). We investigated the utility of SDT indexes over the conventional WMS-III age-scaled score in a mixed clinical sample. Participants included 23 psychiatric patients and 25 dementia patients referred for neuropsychological evaluation, who were administered the WMS-III as part of a larger battery. SDT indexes of d' and c were computed in addition to age-scaled scores for all participants. For the dementia group, d' was correlated strongly with age-scaled ($r = .53-.86$) scores for all recognition measures, while c was effective in identifying 'yea-saying' and 'nay-saying' response bias for the dementia patients. Except for Faces I, both raw and age-scaled scores were correlated negatively with FA only ($r = -.54-.97$). In contrast, for the psychiatric group, d' was correlated strongly ($r = .53-.94$) with both raw and age-scaled scores, while both hits ($r = .40-.74$) and FA ($r = .45-.80$) were related to overall performance. Our results suggest that WMS-III recognition performance is most strongly compromised by FA errors in dementia patients, whereas both hits and FA contribute to total score for psychiatric patients. We conclude that SDT indexes provide unique information, characterizing both discriminability and response bias, over the sole reliance on age-scaled scores with the WMS-III.

Correspondence: J.L. Woodard, Department of Psychology, Finch University of Health Sciences/The Chicago Medical School, 3333 Green Bay Road, North Chicago, IL 60064.

S. CHRISTMAN & J. LOCKETT. Attending to One Versus Multiple Objects: Upper-Lower Visual Field Differences.

Judgments that a line is bisected below versus above center are geometrically equivalent to judgments that the upper versus lower line segment is longer. Psychologically, however, these judgments may be based on different mechanisms: bisection involves treating the stimulus as a single object to be analyzed, whereas comparison judgments involve treating the stimulus as two separate objects to be compared. This possibility was explored by employing bisection and comparison tasks on the same set of stimuli. Stimuli were vertically aligned pairs of rectangles or lines, in which either the upper or lower member was larger; additionally, 20% of trials consisted of equal size stimuli. In the bisection task, participants indicated whether stimuli were bisected above or below center. In the comparison task, participants indicated whether the upper or lower stimulus was larger. Bisection of rectangles was faster when the upper stimulus was larger, whereas comparison was faster when the lower stimulus was larger. Furthermore, when stimuli consisted of equal sized rectangles, participants were biased to respond that they were bisected below center (meaning that the upper stimulus appeared bigger), whereas the lower object appeared bigger in the comparison task. Line stimuli did not show differential effects of task, eliciting general biases to perceive the lower stimulus as larger. Thus, for rectangular stimuli, bisection versus comparison tasks biased participants to perceive the upper versus lower stimuli as being larger; this supports the hypothesis that attention to single versus multiple objects is associated with upper versus lower visual field attentional biases, respectively.

Correspondence: S. Christman, Department of Psychology, University of Toledo, Toledo, OH 43606.

CHILD ADHD

R. BURMEISTER, K. KRULL, L. BUONO, & J. FEIGIN. Factor Analysis of the Continuous Performance Task Commission Error Subtypes.

Continuous performance task (CPT) commission error subtypes have most often been evaluated collectively as a measure of impulsivity. However, the factor structure of the CPT has not been examined to determine if these errors represent a unitary factor or if different subtypes could be representing distinct psychological processes. Gordon Diagnostic System visual vigilance task data was collected for 90 children (ages 6-14) who were referred to an attention problems clinic. Factor analysis was performed on the 6 commission error subtypes, correct responses, and mean reaction times.