



Title	Cognitive and Neurological Sign Features of Intense Blinkers in Chronic Schizophrenia
Author(s)	Chan, RCK; Chen, E
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performance has been associated with impaired community functioning. A weakness of the WCST is that it is somewhat lengthy and frustrating for poor performers, thus recently, a short version of the WCST has been developed. The psychometric properties of this new test in persons with schizophrenia, however, have not been established. The current study examines the comparability of the WCST64 with original WCST in a schizophrenic sample. Specifically, we examine whether performances on the two measures yield similar scores. The original WCST test data of 60 patients with schizophrenia spectrum disorder were rescored for the first 64 cards. Percentiles and ranges of each WCST measure were then compared. For the entire sample, significant differences were found for perseverative responses ($p < .01$), and sorts-percentile ($p < .0001$). Ranges for WCST64 and original WCST percentile scores were different in 50% or more of the cases for conceptual level responses, nonperseverative errors, perseverative errors, and perseverative responses, and in 47% for total errors. For conceptual level responses, sort-percentile ($p < .05$), total errors, perseverative errors, and perseverative responses ($p < .001$), ranges were higher for the WCST64. Our results suggest the WCST64 overestimates performances on select measures when compared to performances on the original WCST. Implications for test use and interpretation of the WCST64 with a schizophrenic population are discussed.

Correspondence: *Daryl Fujii, Ph.D., Department of Psychology, Hawaii State Hospital, 45-710 Keaahala Road, Kaneohe, HI 96744. E-mail: defujii@hsh.health.state.hi.us*

R. CHAN & E. CHEN. Cognitive and Neurological Sign Features of Intense Blinkers in Chronic Schizophrenia.

Blink rate seems to be a marker for schizophrenia and other psychotic disorders. Previous studies suggest that significant difference exists between patients with schizophrenia and normal controls in a resting or relaxing condition, but not cognitively active condition. Given the common neural substrates of blink rate, neurological signs, and some of the neurocognitive functions, it is surprising relatively few studies have been specifically designed to investigate their relationships. This study aimed to explore the relationships among cognitive functions, neurological signs, and clinical symptoms in a group of chronic schizophrenia patients, intense blinkers in particular. A sample of 90 chronic schizophrenic patients was recruited. Blink rate was recorded when participants were in a resting and relaxing condition. The mean blink rate was 24.49 count/min ($SD = 18.15$). Significant correlations were only found between blink rate and global psychopathology of psychotic symptoms ($r = -.3, p = .009$), and disinhibition subscale of soft signs ($r = .26, p = .021$). When the group was further divided into two sub-groups by taking the lower and upper quartiles of their blink rate, i.e., intensive blinker (>75 th %ile; $n = 23$) and rare blinker (<25 th %ile; $n = 23$), intense blinkers exhibited significantly more disinhibition signs than rare blinkers ($z = 2.224, p = .026$). There was also a trend for the intense blinkers to commit more error in a sustained attention task ($p < .1$, effect size = .38). These findings suggest that blink rate is associated with disinhibition signs among chronic schizophrenia.

Correspondence: *Raymond Chan, Department of Psychiatry, the University of Hong Kong, Pokfulam Road, Hong Kong, China. E-mail: rkchan@hkucc.hku.hk*

S. LANGENECKER, E. TURKEL, J. BATES, J. KANE, D. ROBINSON, & R. BILDER. Competing Motor Programs: Validity, Reliability, and Use With Schizophrenia.

One promising category of neuropsychological tests for determining and characterizing the underlying pathology in the frontal lobes has been called motoric regulation, a subdivision of executive functions. Existing measures of executive functioning are often hampered by the possibility of multifactorial interpretations of failed performance, difficult to understand instructions, and poor detection of frontal lobe pathology. As such, a task modeled after the Motor Sequences Test of Luria has been created for computer administration. To demonstrate the efficacy of the competing motor programs test (CMP), we examined the patterns of performance in first episode schizophrenia (FES) patients (acute and stable) at different

stages of treatment and recovery and compared their performance with that of healthy control subjects with up to eight serial examinations. We also examined improvement in CMP performance in relation to initial status and change with treatment and the relationship of neuropsychological measures to key behavioral indices of CMP variables at initial exam. Significant differences were evident between FES patients and controls in accuracy, number of trials to criterion, failure to attend to negative feedback, and reaction time for opposite trials at initial test. All groups demonstrated improvement with time. Initial CMP performance accounted for 49% of the variance in endpoint executive functioning after controlling for education. Test-retest reliability coefficients ranged from .45 to .65 and correlations with other executive measures ranged from .18 to .54, with 18 of the 20 correlations significant after controlling for initial patient status. Correspondence: *Scott Langenecker, 1500 E. Medical Center Drive, Taubman Center, Room F3955, Ann Arbor, MI 48109. E-mail: slangen@umich.edu*

I. TORRES, D. O'LEARY, & N. ANDREASEN. Symptoms and Interference Effects in Schizophrenia.

The present study was undertaken to test Frith's model which states that specific symptoms of schizophrenia result from diminished capacity to regulate willed (goal-directed) and stimulus-driven action systems. A total of 107 patients were administered the RAVLT, a task that on interference trials requires individuals to recall target material while suppressing non-target distracting stimuli from memory. Symptom ratings were obtained using Andreasen's SANS/SAPS. Based on the model, it was predicted that negative symptoms would result in diminished recall, reflecting compromised activation of the willed action system. It was also predicted that disorganized symptoms would be associated with heightened interference susceptibility resulting from diminished ability to suppress the stimulus-driven action system. Results indicated that diminished recall was related to negative ($r = -.25, p < .05$), but not disorganized or positive symptoms. Symptom ratings were also evaluated in a subset of patients with intrusion error data ($n = 38$). In this subset, it was found that patients who committed intrusion errors on the interference trials evidenced more disorganized, but not negative or positive symptoms, than individuals failing to commit such errors ($t = 2.1, p < .05$). These findings provide support for Frith's hypothesis that impaired regulation of action systems can explain some of the specific symptoms of this illness.

Correspondence: *Ivan Torres, Ph.D., Department of Psychology, Simon Fraser University, 8888 University Drive, Burnaby, BC V5A 1S6, Canada. E-mail: itorres@sfu.ca*

A. SIM, J. PEER, A.J. RITCHIE, & W. SPAULDING. The Rey-Osterrieth and RBANS Complex Figure Tasks: A Systematic Comparison.

The present study investigated the equivalency of the RCFT with the complex figure contained within the more recently developed Repeatable Battery for the Assessment of Neuropsychological Functioning (RBANS). The sample consisted of 26 psychiatric inpatients with severe mental illness (primarily schizophrenia spectrum disorders) who were assessed with both the RCFT and the RBANS complex figure tasks. Expanding the findings by Randolph, the present investigation found a significant correlation between both the copy and recall scores of the two measures ($r = .637, p < .001$ and $r = .608, p < .001$, respectively). These results suggest that the RBANS complex figure possesses convergent validity with the RCFT and is a comparable measure of visual memory and visuospatial abilities as the RCFT. Additional analyses revealed, however, that RCFT recall scores had a significant correlation with Trails B scores ($r = -.355, p = .012$) while recall scores from the RBANS complex figure did not yield such a relationship. To the extent that Trails B provides a measure of individuals' information processing abilities, this result suggests that the RCFT may tap into and demand a greater level of executive functioning abilities than the RBANS complex figure. Similarly, analyses found that while the RCFT possessed a significant correlation with Wide Range Achievement Test II-Reading scores ($r = .367, p = .010$), the RBANS complex figure did not possess such a relationship. This result suggests