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A Comparison of Four Tests of Malingering and the Effects of Coaching

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This study examined the ability of four measures of suboptimal performance to correctly classify four groups of subjects (normal controls, uncoached malingering, coached malingering, and head injured). Only the Portland Digit Recognition Test-Computerized (PDRT-C) identified simulating malingerers with greater than chance accuracy while minimizing false positives. Coached subjects were better able than their uncoached counterparts to avoid detection on all measures. In an additional analysis, a discriminant function using the response latency and total correct scores from the PDRT-C identified 70% of the coached malingerers on cross validation. The three other tests (Nonverbal Forced Choice Test, 21-Item Test, and Dot Counting Test) failed to obtain a satisfactory classification rate for the malingering groups as a whole and coached malingerers in particular. © 1998 National Academy of Neuropsychology. Published by Elsevier Science Ltd

The detection of malingered deficits in neuropsychological assessment has received considerable attention of late. Research investigating the use of standardized neuropsychological assessment techniques for such detection has met with variable results, suggesting that traditional tests may be of limited value when used for this purpose (cf., Bernard, 1990; Boone & Filskov, 1990; Faust, Hart, & Guilmette, 1988; Faust, Hart, Guilmette, & Arkes, 1988; Franzen, Iverson, & McCracken, 1990; Goebel, 1983; Heaton, Smith, Lehman, & Vogt, 1978;

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Trueblood & Schmidt, 1993). Patterns of scores, but not necessarily the scores themselves, tend to separate malingerers from persons with true deficits. Differences on sensorimotor tasks and on tests of immediate attention (e.g., Digit Span) have shown promise as possible indices of effort on standard neuropsychological tests (e.g., Iverson & Franzen, 1996), yet even these indices have interpretive problems. For instance, clinical judgments based on test results alone are less than satisfactory. Statistical procedures are slightly better, but have yet to be adequately cross validated (Franzen et al., 1990). Recognizing this, researchers have begun to turn their focus from the use of standard neuropsychological tests toward the development of objective assessment devices designed specifically for the detection of suboptimal performance.

More recently developed tests of biased responding are based on the symptom validity paradigm described by Pankratz, Fausti, and Peed (1975) and exploit the lay person's inexperience with the actual clinical presentation of the feigned disorder. Originally designed to assess any functional sensory deficit, symptom validity testing has been extended to detect feigned memory impairment (e.g., Pankratz, 1983; Binder & Willis, 1991; Frederick & Foster 1991; Iverson, Franzen, & McCracken, 1991). Symptom validity testing involves the administration of a simple two-alternative forced-choice task assessing the patient's alleged deficit. By chance alone, at least 50% of the patient's answers should be correct if the complaints are valid. The only plausible explanation for below chance performance would be that the patient knew the correct answer and chose to respond otherwise. However, research has shown that normal subjects simulating the effects of head injury as well as persons with mild head injuries with motivation to exaggerate do not reliably respond at below chance levels. Binder and Willis (1991) and Frederick and Foster (1991) found that a majority of their simulated malingerers did not perform below the level of chance despite scoring significantly below their cognitively impaired, honest responding groups. As a result, many current tests have developed decision rules for classification that utilize a cut-off score rather than the more conservative below chance criterion.

Some researchers have begun to explore the utility of more covert measures of biased responding as adjuncts to traditional scores. The advantage of this approach is that it becomes more difficult for the would-be malingerer to monitor performance. Rose, Hall, and Szalda-Petree (1995), for example, converted the Portland Digit Recognition Test (PDRT; Binder & Willis, 1991) to computer administration and added a measure of response latency. They found that the addition of the response latency measure significantly improved the test's ability to identify simulated malingerers.

The present study compared the efficacy of four tests designed specifically for the detection of biased responding in neuropsychological assessment: The Portland Digit Recognition Test-Computerized (PDRT-C; Rose et al., 1995), Rey's Dot Counting Test (Lezak, 1995; Rey, 1941), the Nonverbal Forced Choice Test (Frederick & Foster, 1991), and the 21-Item Test (Iverson et al., 1991). We also assessed the extent to which simulating malingerers who were provided with information about the effects of head injuries would be able to escape detection. That is, we examined the effects of coaching subjects on their test performance. Many studies have demonstrated that providing subjects instructed to malinger with such information results in test scores that are more like truly impaired patients than those of noninformed subjects (Boone & Filskov, 1990; Frederick, Sarfaty, Johnston, & Powell, 1994; Kerr et al., 1990; Rogers, Gillis, Bagby, & Monteiro, 1991). We hypothesized that of the four tests, the PDRT-C would be superior to the others in separating persons feigning cognitive impairment from persons with head injuries based on the test's combined response latency and experimentally derived cut-off scores. Coached malingerers were expected to simulate head injury with greater success than uncoached malingerers, but were still hypothesized to be detected by the covert measurement of response latency on the PDRT-C.