

LETTER TO THE EDITOR

Effort – What is it, How Should it be Measured?

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Victor, Boone, and Kulick (2010) make a bold statement with major implications for the entire field of neuropsychology in their critique of Libon et al. (2010) on complex regional pain syndrome (CRPS). Victor et al. state "... in the absence of adequate consideration of compensation status and effort, such conclusions are likely inaccurate, and it is our belief that the practice of continuing to publish such papers harms the field through the perpetuation of misleading information. The clinical impact of studies neglecting these factors is potentially damaging (p. 1151)." Without discussion or dispute, every researcher and clinician in neuropsychology strives to make accurate inferences from valid data. Is it really the case that the Libon et al. findings cannot be interpreted without knowing "compensation status and effort?" While compensation status is straightforward to determine and report what defines "effort" and its measurement are not necessarily straightforward.

The term "effort" has emerged in neuropsychological nomenclature as an indicator of response bias often defined by performance on symptom validity tests (SVTs). The terms effort, SVT performance, and response bias are often used interchangeably. Even with all the contemporary SVT research, McGrath, Mitchell, Kim, and Hough (2010) recently reviewed the topic concluding that "Despite many years of research, a sufficient justification for the use of bias indicators in applied settings remains elusive (p. 450)."

Position papers from neuropsychological organizations provide some important SVT guidelines (Bush et al., 2005; Heilbronner, Sweet, Morgan, Larrabee, and Millis, 2009), but offer no specifics for which SVTs may be best for which

neurological and neuropsychiatric conditions. Often good versus poor effort is based on whether the selected SVT is performed above ("good effort") or below ("poor effort") an established cut-score. However, cut-scores create binary classifications with inherent limitations. For example Dwyer's (1996) review of cut-score development concluded that cut-scores (a) always entail judgment, (b) inherently result in some misclassification, (c) impose artificial "pass/fail" dichotomies, and (d) no "true" cut scores exist (p. 360). The position papers mentioned above provide clear guidelines for malingering detection, especially in the presence of below chance SVT performance but most studies that examine "poor" effort find above chance but below cut-score performance.

In this context, what does poor effort mean? Answers to this question can only come from comprehensive studies that compare and contrast the major neurological and neuropsychiatric disorders by SVT measures. Furthermore, there are no systematic and comprehensive lesion-location SVT studies that demonstrate absence of a performance effect.

Explicit to the Libon et al. study, these investigators appropriately used a cluster analysis technique to examine their *clinically* derived CRPS data, resulting in a three group solution that made clinical sense. How would knowing SVT findings alter these clinical groupings? In fact one cluster was deemed unimpaired on neuropsychological tests. Is an independent "effort" measure needed to declare one group "normal" when they have actually performed within expected ranges of normalcy on all tests? The Global group was impaired across the board, including poor memory performance and also endorsed moderate-to-severe depression. Could these findings be a reflection of poor effort? Certainly, but how does one disentangle cognitive effort and all of the issues raised above merely by administering an SVT?

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