

Masquerades of Brain Injury Part III: Critical Evaluation of Symptom Validity Testing and Diagnostic Realities in Assessment

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Evaluation of impairment and disability following physical and psychological trauma typically occurs in such contexts as Social Security disability application, personal injury litigation, worker's compensation claims, disability insurance policy applications, and other healthcare insurance policy coverage issues or determinations of competence to work, handle finances, or fulfill other important life functions. For example, parenting or driving also may be the focus of the assessment. Evaluation of impairment and disability in compensation situations, however, presents a significant diagnostic challenge fraught with potential obstacles and confounding issues, especially in cases of functional disability following less conspicuously severe or catastrophic injury such as psychologic and subtle neurologic charges or soft tissue damage.^{1,2}

Evaluations are too often performed without adequate training in disability issues or consideration of complex differential diagnostic issues and potential ethical conflicts relevant to medicolegal evaluations. Even if problems relating to environmental incentives and other influences that contribute to bias in the examinee (and examiner) in medicolegal contexts were not present, disentangling the multiple contributors to impairment and disability would still represent a diagnostic challenge that requires careful scrutiny.^{1,2,3}

Unfortunately, the effects of response bias cannot be ignored as a critical element in the conduct of medicolegal evaluations. "Response bias," as used in this context, refers to a class of behaviors that reflect less than fully truthful, accurate, or valid symptom report and presentation, whether deliberate or unconscious. The primary focus in this article is on the role of neuropsychological assessments in the evaluation of response bias.

ASSESSING RESPONSE BIAS IN NEUROPSYCHOLOGICAL ASSESSMENTS

Given the frequent incentives to distort performance, examinee motivation to provide truthful report and full effort is an extremely important prerequisite to valid neuropsychological assessment. Valid assessment is required for provision of the following:

- Accurate diagnosis
- Appropriate and timely treatment to promote optimal recovery
- Prevention of iatrogenic impairment and disability reinforcement and promulgation of unnecessary health care costs
- Appropriate legal compensation decisions based on causality and level of damages suffered⁴

In the context of impairment and disability evaluations or insurance-related evaluations, reports demonstrating high prevalence rates of response bias in examinees are proliferating.^{5,6,7,8,9,10,11,12,13}

The August 2001 issue of the *Journal of Controversial Medical Claims* (Part II of the Masquerades series) reviewed the area of response bias in medicolegal examinations.¹² In that article, we offered a procedural guide (in Table 3) for profiling motivation and response bias. Although there are varying degrees of empirical support for the measures used for detecting suboptimal effort, reliability of conclusions is certainly increased when multiple measures are employed.

Importantly, those strategies were not offered for use in isolation and were not intended to support a simple dichotomous model that assumes examinees either try hard or malingering. Instead, the following was noted:

- Test performance is influenced by many motivational factors.
- The degree of effort exerted on testing cannot be assumed to be uniform, and further, it exists on a continuum that can only be estimated.
- Indicators of poor effort include the degree of effort exerted on multiple measures that include not only specific symptom validity tests (SVTs) but also neuropsychological measures with known suboptimal performance patterns.

Accurate diagnostic impressions are dependent on reliable and valid test results, which in turn, are dependent upon assurances of adequate test effort.

CRITICAL EVALUATION OF SYMPTOM VALIDITY TESTING AND DIAGNOSTIC REALITIES IN ASSESSMENT

It should be emphasized that "failure" on any one measure of response bias or malingering does not mean that the entire set of complaints is biased. Ethical guidelines produced by the American Psychological Association caution against overzealous interpretation of limited test data. Unfortunately, the recent increase in attention to response bias assessment has often been accompanied by overzealous application of poorly validated detection procedures and questionably strong opinions regarding malingering. Although these instruments and procedures vary in terms of empirical support, all have identifiable limitations.^{2,14}

The most common weaknesses and limitations of SVTs include the following:

- Psychometric shortcomings (that is, test construction issues such as inadequate reliability and validity data and failure to meet professional standards for educational and psychological tests)¹⁵
- Limited or absent empirical data to support generalizability from findings on simulated malingerers (that is, analogue research) to real malingerers
- Wide variability in research sample characteristics of simulated malingerers
- Limited correlations or generalizability of findings from one SVT to other SVTs or to suboptimal performance patterns on a battery of standardized neuropsychological tests
- Differential subtlety (versus obviousness) of SVTs to detection by examinees
- Confounding of false and exaggerated symptoms in clinical groups
- Limited validation research on "response bias" as a construct
- Uncertain specificity relative to the effects of fatigue, pain, disinterest, nonattended (computer) administration, et cetera (individually, and in combination)
- Frequently high misclassification rates (that is, false positives or false negatives) not only in experimental research but, more importantly, in large clinical research samples, even when using multiple indicators^{16,17}

This summary of shortcomings underscores the need for caution in interpretation and the importance of integrating multiple data sources, including behavioral observations, interview data, test results, medical workups, historical and collateral sources of information, as well as specific measures of effort and response bias, and the need for further research. It also underscores the importance of using a motivational assessment model that conceptualizes effort on a continuum and is dependent on multiple strategies and measures that are not easily conveyed, given the potential for attorney coaching^{2,13} and examinee self-coaching.

Exhibit 1 illustrates the multiple possibilities with regard to injury-related presentations. These range from persons with real, uncomplicated disorders demonstrating impairments on exam and in functional status without exaggeration, to persons with complicated, misattributed, or nonexistent disorders demonstrating exaggerated or false impairments on exam and in functional status.

CONCLUSION

Assessment of response bias is critical to ensuring accurate determination of symptom source, appropriate decisions regarding treatment and compensation, and prevention of iatrogenic complications. Although there are many techniques to assess response bias, the methodology is still developing. At

Exhibit 1: Diagnostic Complexities		
Genuine Pathology	Residual Functional Chemical Formula	Residual Impairments on Examination, Testing
1. Yes	1. Yes & Exaggerated	1. Yes & Not Exaggerated
2. Mixed	2. Yes & Not Exaggerated	2. Yes & Exaggerated
3. Indeterminate	3. No & Exaggerated	3. No & Exaggerated
4. No	4. No & Not Exaggerated	4. No & Not Exaggerated

present, determination of response bias requires clinical skill and judgment. Appreciation of motivational issues requires integration of information from a variety of sources rather than relying on individual indicators or simple tests.

The more challenging assessment problems include differentiating mixtures of exaggerated and true symptomatology, understanding what aspects of response bias are consciously versus unconsciously determined, and appreciating what may be modified by psychosocial factors. Further work is needed to disentangle and measure the impact of the variety of types of response biases. Also, evidence suggests that factors associated with the adversarial medicolegal system may be as important an impediment to post-injury recovery as any patient or injury related variable. Addressing this impact on response bias would seem to be necessary for enhancing neuropsychological and neuromedical assessment.^{18,19}

"*Masquerades of Brain Injury Part I: Chronic Pain and Traumatic Brain Injury*" was published in the May 2001 issue of the *Journal of Controversial Medical Claims*. "*Masquerades of Brain Injury Part II: Response Bias in Medicolegal Examinations*" was published in the August 2001 issue of the *Journal of Controversial Medical Claims*. To obtain a copy of either of these publications, call 1-800-234-1660.

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