Detection System for Malingered PTSD and Related Response Biases

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Abstract This article consists mostly of an appendix on the detection of feigned/malingered PTSD that was justified after analysis of extant malingering detection systems and then presented in Young (2014a) as a long table. The submission reviewers at the journal had considered it appropriate that, although it had been published in book format, it is opened up to peer-review commentary to deal with errors of omission and commission, thereby leading to relevant changes, if any, before further use other than as a guide to assessments in the area. In this regard, we solicit reviews, comments, criticisms, suggestions for change, and so on, with a response (rebuttal) to follow. The present malingered PTSD detection system constitutes the first in the field. It incorporates multiple corrections and additions relative to the extant systems on which it is based (MND, Malingered Neurocognitive Dysfunction; MPRD, Malingered Pain-Related Disability; respectively, Slick, Sherman, & Iverson, 1999; Bianchini, Greve, & Glynn, 2005). It includes very specific rules and procedures both for testing and considering inconsistencies/discrepancies in the file history. Therefore, it is comprehensive and lengthy, or takes about ten times as long to present in tabular format as the MND and MPRD systems on which it is based, (portions in italics indicate what is new to the system). It was constructed to permit the creation of equivalent systems for neurocognition and pain, presented in Young (2014a). The system is useful to mental health professionals not wellversed in psychological testing because, aside from its testing component, it includes extensive procedures for evaluating inconsistencies/discrepancies in examinee files. The system needs evaluation of its reliability and validity, as well as clinical utility.

Keywords Malingering · Psychological Injuries · Law · PTSD · Tests

Introduction

The field of psychological injury and law lacks a malingering detection system dedicated to detecting malingered posttraumatic stress disorder (PTSD) in forensic disability and related evaluations. In this regard, I constructed a new system that builds on prior models, but ones on other psychological injuries and not on PTSD. That is, I examined the malingering detection systems for neurocognitive and pain-related complaints that had been developed by Slick et al. (1999) for Malingered Neurocognitive Dysfunction (MND) and by Bianchini et al. (2005) for Malingered Pain-Related Disability (MPRD) (see the Appendix). As well, I considered the work of Rogers, Bender, and Johnson (2011a, b) and Boone (2011) on their recommendations on malingering detection, and the test protocol developed by Rubenzer (2009) to detect malingered PTSD. The model that I developed for PTSD was constructed so that it could be general and easily transformed by using slight alterations (mostly just by using some differing examples), and, thus, create new systems for detecting malingered pain and neurocognitive function. That is, in constructing the system for PTSD to begin with, I was quite aware that I wanted later to generalize it to ones for pain and neurocognition. These additional malingering detection systems are presented in Young (2014a).

It is beyond the scope of the present article to explain the system in depth, and aside from the brief text that follows in

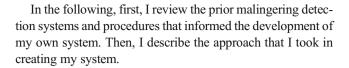
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the article, the appendix that presents it includes an introductory explanation in this regard. The reader can consult Chapter 5 in Young (2014a) for a detailed description of the system. Also, it is beyond the scope of this article to summarize the nature of PTSD, how to assess and diagnose it, and the controversies related to it. The reader can consult Young (2014a) for further information, as well as Young (2014b) and Young, Lareau, and Pierre (2014). For further description of malingering, as well as the field of psychological injury and law, in general, Young and Drogin (2014) and Young (2014c) offer pertinent background. Young (2015) provides a review of the recent literature on malingering since the Young (2014a) book. There are many other books related to malingering (e.g., Carone and Bush 2013; Larrabee, 2012a in Larrabee, 2012b; Rogers, 2008), psychological injury law, and assessment (e.g., Kane & Dvoskin, 2011), and PTSD (e.g., Friedman, Keane, & Resick, 2014; Vasterling, Bryant, & Keane, 2012) that offer valuable information (and that are integrated into Young, 2014a). As for critical articles by others on the topic, among many others, informative articles have been written by Demakis and Elhai (2011) on PTSD and malingering, Sleep, Petty, and Wygant (2015) and Odland, Lammy, Martin, Grote, and Mittenberg (2015) on testing in forensic disability and related cases, and Zoellner, Bedard-Gilligan, Jun, Marks, and Garcia (2013) and Biehn, Elhai, Seligman, Tamburrino, and Forbes (2013) on PTSD in the DSM-5.

The MND and MPRD systems include different degrees of possible malingering and related qualifications, such as definite and probable. Similarly, the present system is a dimensional one that organizes categories on a continuum from significant to minimal likelihood of malingering. Specifically, I propose a model with a range of seven different response biases, including ones ranging from, at one end, frank malingering or related attributions to, at the other end, an absence of malingering, with an indeterminate "gray zone" category, too.

Note that the attribution of malingering can only take place in the context of a full-scale assessment that includes interviews, collateral information, and so on, and not just testing. Malingering might be apparent in cases having incontrovertible evidence, such as videographic evidence, but usually this type of information is not available. Therefore, generally in cases in which the appropriate conclusion is that malingering is present, the decision is based on test results and not on other evidence of this latter nature. In this regard, when the evaluator refers to definite malingering for a case, generally, it is because there are test results that indicate definite negative response bias; for example, the case includes statistically significant below-chance failure on two forced-choice tests. In such circumstances, the attribution of malingering is given when the file as a whole dictates that this conclusion is appropriate.



Prior Models

Slick et al. (1999) developed a system of "specific, clearly articulated" criteria for rating different degrees of malingering. In particular, they focused on definite, probable, and possible malingering. Aside from this critical aspect to their system, it is notable for articulating many types of possible inconsistencies in data gathered in an assessment, e.g., between test data and observed behavior. There are four categories of criteria in their system, numbered in capitalized letters: (A) presence of substantial external incentive; (B) evidence from neuropsychological testing; (C) evidence from self-report; and (D) exclusion criteria even if the evidence for (B) and (C) are present.

For their model of MPRD, Bianchini et al. (2005) maintained the Slick et al. (1999) distinction of definite, probable, and possible malingering-related disability. As for the criteria, they are grouped into the same four categories in Slick et al. (1999), and another one was added on evidence from physical evaluation, which consists of four criteria. The criteria in the critical categories were altered relative to the MND model. When I had to decide which model could serve me better in constructing my own, I found the language in the MPRD a good starting point. However, I consulted other material, as well.

Rubenzer (2009) did not create a diagnostic system related to malingering, but he developed a weighting scale for tests that can be used in the detection of malingering and other biases evident in PTSD assessment. For each measure, he assigned a weight of either one or two, except for the case of failure of any SVT at a level that is below-chance (statistically significant), for which he assigned the weight of five. This decision is consistent with the importance given in the literature to statistically significant below-chance level failure on forced-choice tests. Rubenzer's system informed the present one because he included a weighting protocol, which led me to develop the 60 rules concerning tests in my system. Also, he listed multiple tests that could be useful, and I did the same in my approach.

It is informative to view that Rubenzer listed tests from all the major categories in the literature—personality tests, standalone tests, and cognitive tests as might be used in neuropsychological evaluation. It is also informative that he allowed several indicators/scales/measures to be taken for weighting from one instrument, such as was the case for each of the personality tests listed, as well as for the interview schedule for malingering detection. In the diagnostic system that I



developed, I followed the same procedures of integrating the different types of feigning-detection instruments and allowing more than one index from critical tests, such as from the personality inventories.

In the MND and MPRD systems, inconsistencies and discrepancies are considered revealing with respect to malingering detection. In Young (2014a), I noted the following about their treatment in the two prior systems: (a) The types of inconsistencies/discrepancies in the two systems need more clarity in definition/examples. (b) The two systems do not list all types of inconsistencies/discrepancies possible. (c) They do not list all of the combinations possible of types of inconsistencies/ discrepancies. (d) They do not include uniformly within- and not only across-category inconsistencies/discrepancies. (e) The prior systems include multiple types that overlap, but they should be separated according to: (i) standard test data; (ii) self-report; (iii) observations; (iv) known patterns of brain functioning; (v) known patterns of physiological functioning; (vi) collateral information; and (vii) documented information. (f) Information in these inconsistency/discrepancy categories could be about preevent, event, or post-event factors. It might refer to either preevent history, such as prior police or criminal record, or event/ post-event symptoms, impairments, dysfunctions, and disabilities, if any. (g) The inconsistencies/discrepancies could be compelling/marked/substantial or otherwise, but, in the two systems, no clear guidelines are offered to differentiate the more severe compelling type. (h) In the two systems, test data could derive from measures of exaggeration, fabrication, and suspected malingering, such as in symptom validity tests (SVTs), but also tests from tests like the MMPIs. In Young (2014a), I noted that better ways of combining the different types of tests data in detecting malingering need to be created.

Note that Slick and Sherman (2012, 2013) modified extensively their 1999 MND model but, in Young (2014a), I showed that the revision has clear difficulties that compromise its value. Also, Greve, Curtis, and Bianchini (2013) recommended that the MPRD system could be used in PTSD malingering detection, but I had noted this suggestion is not feasible, given the multiple pain factors embedded in the system.

System for Detecting Malingered PTSD

The malingered PTSD detection system that I created built on the influences just described, and they constitute advances in the field that cannot be minimized. Nevertheless, by considering them together, as well as additional sources, such as the criticisms of the MND in Rogers et al. (2011a, b) and Boone (2011), the new system that I created not only took the best of the prior work but added extensively to it.

The major innovations that I incorporated into the system to help in detecting malingered PTSD and related negative response biases concern developing elaborate protocols involving: (a) rules for testing that integrate the different types of tests that can be used in the detecting of feigning/malingering—such as forced-choice tests, structured interview tests, embedded cognitive/neuropsychological tests/measures/scales, and validity indicators on personality tests—and (b) inconsistencies/discrepancies that might be evident in evaluations—such as compelling ones in and between testing, self-report, observations, collateral information, documents, and known brain function/psychology.

These considerations led to much complexity and length in the system that I created, but these factors make it precise, usable, and applicable across a broad range of assessments. Moreover, it can account for multiple contingencies in an assessment across its major parts—those related to testing and also from other information gathered, such as from the interview of the examinee, records, and collateral information. Therefore, given these advantages, what some might consider weaknesses (complexity, length) of the system for detection of malingered PTSD in the appended table, to the contrary, add to its potential value and validity, and justify that it took over 20 printed pages to publish in Young (2014a). The MND and MPRD systems take much less space to describe in depth compared to my own, which attests further to the comprehensive nature of the system that I developed.

That said, to repeat, my system is based on theirs, and could not have been constructed without them. In this regard, in the table in the appendix that presents my system, it is noted that the sections not in italics are taken from their prior work. This accomplishes two things. On the one hand, it acknowledges their important contributions to the field. On the other hand, it indicates that most of the system that I created greatly elaborated the prior systems.

As for the contents of my system, the crux lies in how I defined definite malingering and related negative response biases. Specifically, aside from cases with extremely compelling evidence, such as frank admission or indisputable videographic evidence, in the present detection system, definite malingering can be attributed in cases in which: (a) two or more forced-choice measures are failed at the statisticallysignificantly-below-chance level; or (b) there are five or more test failures on other valid psychometric measures; or (c) there are three or more compelling inconsistencies; or (d) any combinations of these types of evidence are found, or (e) other evidence replaces the weighting of some of these types of evidence, such as extreme scores related to negative response bias on valid psychometric tests or the presence of an overall judgment of the file adding weight to the determination that malingering might be taking place. Therefore, by examining other factors beyond those listed above for definite malingering, the parameters of the system allow that three test failures could be sufficient to attribute malingering, everything else being equal, which makes it comparable to other systems to a degree.



In this regard, the reader will note that Larrabee (2012b) emphasized three if not two failures on relevant tests as very strong evidence of malingering. All things considered, the present system arrives at a protocol that gives a comparable weighting to such test failures. However, in the present case, there are safeguards built into the system such that the number of tests used for it is limited, so that the risk of Type I error is minimized.

As for concluding the presence of *definite response bias*, the criteria above apply, except that they involve: one forced-choice test, not two; four other tests, not five or more; and two compelling inconsistencies, not three or more, with none of the extreme nature involved. In terms of probable response bias, the criteria exclude forced-choice test failure, but consider three other test failures, not four, and one compelling inconsistency, not two. About other levels in the system, for example, for the indeterminate gray zone or for an absence of any negative response bias, the reader should consult the appendix.

The 60 rules that I created on test usage in the present system constitute its major advance. These rules comprise a rigorous packet that, if followed judiciously, will facilitate reliable use of the system. Moreover, this would be true no matter what type of examinee, the referral source, and so on, permitting generalizability and assuring validity of the system. The 60 rules were constructed to apply equally to the other two systems developed (for pain and neurocognition), and so do not apply just to the one for PTSD.

The 60 rules of the present system were constructed according to 10 pertinent principles and parameters, as specified in the following. In describing them, I elaborate with material from other parts of the book (Young, 2014a) that were not included at the point at which I presented them, but the additional points are consistent with them. (a) There are two tracks in the system, Regular (for PTSD, pain) and Neuropsychological/Cognitive (Neurocognition). (b) There are multiple test types, including forced-choice and personality ones. All types can be used in the system, and the specific ones chosen should be scientifically supported for the question at hand. (c-e) Some test types are more critical than others (e.g., two option forced-choice ones). Some criteria are more critical than others, e.g., statistically significant below-chance performance. And some tests more reliable and valid than others for the purposes at hand, e.g., the MMPI-2-RF [Minnesota Multiphasic Personality Inventory, Second Edition, Restructured Form; Ben-Porath & Tellegen, 2008/2011; see Young (2014a) on the research demonstrating the value of the MMPI-2-RF in the forensic disability and related context]. (f) Any one test can provide one to several validity indicators, depending on the research findings in the area (e.g., the MMPI-2-RF has a family of F and related scales). (g) For use in the present system, the tests should include 10-15 primary measures specified before undertaking an assessment. Moreover, these 10–15 measures should give 5-8 positive findings (and, at most, 3-4 of them from any one instrument) in order to conclude that the examinee has manifested feigning or related response bias, including of malingering. (h) Tests that are correlated in the literature can be used within specified limits (i.e., moderate, at most), but the correlations need to be acknowledged. The present system does not call for use of tests or scales that are independent, unlike systems that are more statistically oriented. (i) Malingering can be concluded only when there is introconvertible evidence after examination of the full reliable data set gathered. That being said, evidence of problematic presentations and performances that do not reach the level of outright malingering can still be qualified in ways that cast sufficient doubt on the credibility of the examinee. (j) In general, test selection and score interpretations must be undertaken scientifically, impartially, and comprehensively, while considering the limits of the evaluees (cognitive deficits secondary to TBI, culture issues, etc.).

Conclusions

To conclude, the new malingering detection system that I have created for case of PTSD needs research on its reliability and validity before it can be used confidently in practice and court. However, if applied prudently, as presently constituted, it might be useful as a guide in assessment. Moreover, the present paper seeks comments, critiques, suggested changes, additions, deletions, and so on, toward improving the system. Just as I built on prior work in building the present system, so can the reader build on mine to improve it. Once responses are received, I will integrate them toward changing the present system, or defending it, or both, as required, and present. [Note that the journal's procedure for reviewing suggested revisions to the proposed malingering detection system, as well as my response to those that are accepted for publication, will be the same as that for any similar submission to the journal, that is, by independent review.]

The present system has been modified to create two other very similar systems, related to detection of malingered neurocognition and pain. Changes applicable to the system on PTSD will necessarily impact the other two.

Finally, given the extensive portion in the present malingering detection system that concerns inconsistencies, it can be used by mental health professionals who focus on inconsistencies only because they do not have competence or formal training in administering, scoring, and interpreting psychological tests. Other professionals in the field are involved in malingering detection, and the systems created need to be general enough for their use, and not just psychologists. That being said, mental health professionals who do not use tests bear a greater burden in establishing the presence of



malingering and related negative response biases when using the current system because they will only be using half of it.

Once all the systems in the Young (2014a) are considered justified one way or another (with or without changes), it could be integrated with other ones that are more statistical in nature. The protocol that I created is rationally derived, based on other rational ones. It includes algorithms that account for the number of tests, scales, and scores that can be used in it, but it does not include statistical procedures, such as Bayesian ones that might be informative, as well, toward malingering determination (e.g., Odland et al., 2015; possible variations of Larrabee, 2012b; Schutte, Millis, Axelrod, & VanDyke, 2011). However, there might be ways to use advanced statistical procedures in the present approach.

The most important future work on the present system concerns reliability and validity, though. As far as I know, the prior ones have not been studied for inter-evaluator agreement. The present approach needs to prove its mettle in this regard. Moreover, it needs to demonstrate efficacy in differentiating known malingering-related groups or malingering simulator groups from relevant control groups. This is no mean feat, because it would take more than the use of small convenience samples or university samples, given its complexity and length and that assessments for the research would rely on a lot more data than in typical study to date. The MND and MPRD systems have given the basis for creating the present one, and if agreement can be reached that a better one than the prior ones has been created (whether as presently constituted or after changes through commentaries or subsequent research) that applies not only to PTSD but, with slight modification, also to MND and MPRD cases, then the impetus for determining its reliability and validity might be set in motion.

In addition, the new malingering detection system that I have created should increase the likelihood that evaluation data analyzed with it will meet court and related requirements. Admissibility challenges in court based on *Daubert* (1993) and related decisions are meant to ensure that evidence proffered to court meet the criteria of good science. By using a protocol that is comprehensive, scientifically-informed, and balanced, as the present one seeks to be, the chances of meeting successfully any admissibility challenges related to malingering determinations are increased. Finally, the work described here might facilitate research on the prevalence or base rate of malingering, as well as other negative response styles in psychological injury populations. The question of base rate of malingering is critical not only for individual cases but also for statistical calculation of relevant psychometric properties of malingering-related tests, e.g., positive predictive power, sensitivity, and specificity. These are crucial in determining test and scale cut scores, for example, which can be quite contentious in the field.

Conflict of interest The author has no conflicts of interest related to this paper. He does mostly rehabilitation and some plaintiff work.

Disclaimer The author receives royalties from his mentioned 2014 Book

Appendix

Proposed Criteria for Non-Credible Feigned Posttraumatic Stress Disorder and Related Disability/Dysfunction

Introduction

The present system has been developed to help in detection of malingering and related response bias in forensic disability and related evaluations. The system is referred to as the Psychological Injury Disability/Dysfunction—Feigning/Malingering/Response Bias System (PID-FMR-S). It is composed of three systems that are quite uniform—the Feigned Posttraumatic Stress Disorder Disability/ Dysfunction (F-PTSDR-D), the Feigned Neurocognitive Related Disability/Dysfunction (F-NCR-D), and the Feigned Pain-Related Disability/Dysfunction (F-PR-D) systems. These three systems cover the major psychological injuries of PTSD, pain, and TBI, respectively. The systems should be used as part of comprehensive evaluations that use state-of-the-art testing and search for inconsistencies/discrepancies. The overall system has been constructed as an impartial, middleof-the-road one that is scientifically informed. It is published in the book by the system's author, Gerald Young (Malingering, Feigning, and Response Bias in Psychiatric/Psychological Injury: Implications for Practice and Court; Springer Science+Business Media, 2014). In the book, Young considers alternate systems and builds on them (for neurocognition, the Malingered Neurocognitive Dysfunction, MND, Slick, Sherman, Iverson, 1999; for pain, the Malingered Pain-Related Disability, MPRD, Bianchini et al., 2005). In addition, the book reviews the literature on malingering, especially in Larrabee (2012b) and Reynolds and Horton (2012).

Aside from examining the MND and MPRD systems, the Young book considers the work of Larrabee (2012a), in particular. The proposals that (a) even one below-chance¹ performance on a forced-choice test and (b) below cut-off performance on three or perhaps two validity indicators from a battery is sufficient to attribute malingering are analyzed carefully. This has led to a more conservative, middle-of-theroad approach for testing criteria in the present system. At the same time, the inconsistency/discrepancy criteria are greatly elaborated in the present system compared to other systems. Moreover, there are other checks and balances that have been included. Therefore, in many ways the present system has aspects that are comparable to the proposals by Larrabee. To conclude, even for its testing criteria, the present system does not simply dismiss the prior work but builds on it.

As an introduction to the specifics of the system and in order to reinforce the notion that it respects and builds on the work of Larrabee (2012a), in the following, the diverse ways that the levels in the system related to definite malingering, definite response bias, and probable response bias are summarized briefly.

Aside from cases with extremely compelling evidence, such as frank admission or indisputable videographic evidence, definite malingering can be attributed in cases in which: (a) two or more forced-choice measures are failed at the below-chance level; or (b) there are five or more test failures on other valid psychometric measures; or (c) there



are three or more compelling inconsistencies; (d) any combinations of these types of evidence are found; or (e) other evidence replaces the weighting of these three types of evidence, such as extreme scores on valid psychometric tests or an overall judgment of the file that adds weight. When the latter obtains then, when numerical data can be gathered, three test failures could be sufficient to attribute malingering, everything else being equal.

As for assigning definite response bias, the criteria above apply, except that they involve one forced-choice test, not two, four other tests, not five or more, and two compelling inconsistencies, not three or more, with none of the extreme nature involved. In terms of probable response bias, the criteria exclude forced-choice test failure, but consider three other test failures, not four, and one compelling inconsistency, not two.

The reader will note that Larrabee (2012a) emphasized three if not two failures on relevant tests as very strong evidence of malingering. All things considered, the present system arrives at a protocol that might give a comparable weighting to such test failures.

Overall, those who had hoped for a system that catches either most evaluees or almost no evaluees in its malingering net will be disappointed, but those who adhere to a science-first approach will find the system rational and balanced. In this regard, the system has been constructed so that its application should yield similar ratings by different raters, or good inter-rater reliability. In addition, the system appears to have the elements needed for adequate validity (e.g., construct, content, criterion). Its state-of-the-art and middle-of-the-road approach constitute important principles underlying validity.

Given these considerations, use of the present system in practice has the potential to meet admissibility criteria in court, perhaps moreso than other systems, and should serve one's practice growth in good stead. A worksheet has been developed to accompany its use. Note that through its inconsistencies/discrepancies criteria, the system should be quite helpful to mental health professionals who are not trained in psychological testing, such as psychiatrists.

Criteria

Criterion A: Evidence of significant external incentive. At least one clearly identified and substantial external incentive for *conscious* exaggeration or fabrication of symptoms is present at the time of examination (e.g., personal injury *litigation*, *workers compensation benefits*, *psychiatric/psychological* disability pension).

<u>Criterion B</u>: Evidence from psychological testing. Evidence that evaluee's psychiatric, psychological, emotional, coping, and related capacities as indicated by formal psychometric testing (e.g., in the context of psychological or neuropsychological evaluation) are consistent with exaggeration or feigning of functional psychiatric/psychological disability.

A. Different Degrees of Certainty of Response Bias, According to Psychological Testing

A1) Definite Malingering.

i) The evidence is incontrovertible, even when the rest of the data gathered is considered. Below-chance performance (p<.05) on two or more forced-choice measures of psychiatric/psychological (e.g., cognitive or perceptual) function, e.g., below-chance performance on the TOMM [scores below tests' clinical/threshold cut scores but that are higher than chance performance are dealt with in the next level], the VSVT, and the WMT. Also consider the VIP.

ii) Performance on *five* or more well-validated tests designed to measure exaggeration or fabrication of *psychiatric/psychological* (e.g., cognitive or perceptual) symptoms, *including forced-choice measures*, is consistent with exaggeration of diminished *functional psychiatric/psychological* capacity.

A2) Definite negative response bias.

i) Below-chance performance (p<.05) on one forced-choice measure of *psychiatric/psychological* (e.g., cognitive or perceptual) function, e.g., below-chance¹ performance on the TOMM [scores below tests'

clinical/threshold cut scores but that are higher than chance performance are dealt with in the next level].

Note. If only one forced-choice test is administered and the evaluee fails at the below-chance¹ level, a second one is administered to determine whether the person reaches the definite malingering rating. Or.

ii) Performance on four well-validated tests designed to measure exaggeration or fabrication of psychiatric/psychological (e.g., cognitive or perceptual) symptoms, including forced-choice measures, is consistent with exaggeration of diminished functional psychiatric/psychological capacity.

Note. Failure on forced-choice measures that is not below-chance¹ but does meet pass-fail thresholds according to normative cut scores are considered for this criterion; i.e., failure to reach critical thresholds based on normative or otherwise validly selected and justified cut scores. That is, forced-choice test results at the latter level as opposed to the below-chance¹ level could be included among the "well-validated tests designed to measure exaggeration or fabrication of psychiatric/psychological (e.g., cognitive or perceptual) symptoms." Note that the same rule applies in the next categories.

A3) Probable negative response bias.

Performance on *three* well-validated tests designed to measure exaggeration or fabrication of *psychiatric/psychological* (e.g., cognitive or perceptual) symptoms, *including forced-choice measures*, is consistent with exaggeration of diminished *functional psychiatric/psychological* capacity.

A3-4) Intermediate (Probable to possible, gray zone) negative response bias

i) The data meet the requirements for classification of possible negative response bias but not the classification of probable negative response bias. Nevertheless, there are supplementary data available about the evaluee that raises the ratings to the intermediate level.

For test data, this would refer to results for extra tests that had not used for the primary ratings because of the scoring rules described below, such as on a second personality test with numerous effort/validity detector scales not all of which had been used for the primary rating, and one or two indicating performance below accepted criteria for lack of effort/validity. That is, in addition to meeting criteria for A4, there is performance on two well-validated supplementary and not primary tests designed to measure exaggeration or fabrication of psychiatric/psychological (e.g., cognitive or perceptual) symptoms, including forced-choice measures, which is consistent with exaggeration of diminished functional psychiatric/psychological capacity. Or,

ii) The data do not even meet the requirements for classification of possible negative response bias. Nevertheless, there are supplementary data available about the evaluee that raises the ratings to this intermediate level. For test data, this would refer to results for extra tests that had not been used for the primary ratings because of the scoring rules described below, such as on a second personality test with numerous effort/validity detector scales not all of which had been used for the primary rating, and three or more indicate performance below accepted criteria for lack of effort/validity. That is, performance on three or more well-validated supplementary and not primary tests designed to measure exaggeration or fabrication of psychiatric/psychological (e.g., cognitive or perceptual) symptoms, including forced-choice measures, is consistent with exaggeration of diminished functional psychiatric/psychological capacity.

A4) Possible negative response bias.

i) Performance on *two* well-validated tests designed to measure exaggeration or fabrication of *psychiatric/psychological* (e.g., cognitive or perceptual) symptoms, *including forced-choice measures*, is consistent with exaggeration of diminished *functional psychiatric/psychological* capacity.

Or



- ii) Criteria for Definite or Probable Response Bias are met except for Criterion D (i.e., primary psychiatric, neurological, or developmental, or other etiologies cannot be fully ruled out). In such cases, the alternate etiologies that cannot be ruled out should be specified.
- A5) Minimal negative response bias.
 - i) Performance on one well-validated test designed to measure exaggeration or fabrication of psychiatric/psychological (e.g., cognitive or perceptual) symptoms, including forced-choice measures, is consistent with exaggeration of diminished functional psychiatric/psychological capacity. When only one instrument is used, and the evaluee does not reach acceptable criteria, a second one should be used to establish by performance whether the response bias is classifiable as possible or minimal.

Or,

- ii) Just-below cut score performance on two well-validated tests so that performance is at most partially consistent with exaggeration of diminished functional psychiatric/psychological capacity.
- A6) No evident response bias.
 - i) Performance on not even one well-validated test designed to measure exaggeration or fabrication of psychiatric/psychological (e.g., cognitive or perceptual) symptoms, including forced-choice measures, is consistent with exaggeration of diminished functional psychiatric/psychological capacity.
 - ii) There might be just-below cut score performance on one well-validated test but, despite this, performance is not even partially consistent with exaggeration of diminished functional psychiatric/psychological capacity.

Weighting Rules for Test Batteries

- As for the nature of the 60 rules included in the present system for test use, they have been constructed to apply equally to the system developed for PTSD and its alteration for conditions of pain and TBI. The rules were constructed according to 10 pertinent principles and parameters, as specified in the following.
 - (a) There are two tracks in the system, Regular (for PTSD, pain) and Neuropsychological/Cognitive.
 - (b) There are multiple test types, including forced-choice, personality, and dedicated. They can be used in the system if scientifically supported for the question at hand.
 - (c-e) Some test types are more critical than others, e.g., forced-choice; some criteria more critical than others, e.g., below-chance¹ performance; and some tests more reliable and valid than others for the purposes at hand, e.g., the MMPI-2-RF.
 - (f) Any one test can provide one to several validity indicators, depending on the research findings in the area.
 - (g) The tests should include 10–15 primary measures specified beforehand, with 5–8 positive findings, and at most 3–4 from any one instrument, needed to conclude significant feigning or related response bias, including of malingering.
 - (h) Tests that are correlated can be used within specified limits and their acknowledgment.
 - (i) Malingering can be concluded only when there is incontrovertible evidence after examination of the full reliable data set gathered.
 - (j) In general, test selection and score interpretations must be undertaken scientifically, impartially, and comprehensively, while considering the limits of the evaluees.
- In terms of the categories within which the 60 rules fall, they group in the following ways. (a) Pathways/tracks in the system: 1, 13, 17, -18; (b) Testing/tests: 2-9, 26-28, 56: (c) Criteria: 10-12, 25, 29; (d) Supplementary/secondary factors: 14-16; (e) Independence/correlation: 19-24; (f) Rating adjustment: 30-32; (g) Test preselection: 33-35; (h) Administration: 36-40; (i) Cognitive/Neuropsychological: 41-45; (j) Less testing: 46-50; (k) Comparison with Larrabee: 51; (l) Evaluators: 52-55; (m) Altering system: 57-58; (n) Using all the data: 59-60.
- These 60 rules are quite explicit, and qualify how to obtain and use all needed validity measures to detect malingering and related response

- biases in the present system. However, the rules should not be used in a box score fashion to arrive at conclusions about malingering and related response biases. The evaluator needs to examine the full data set gathered in comprehensive, scientifically-informed, impartial ways. The ratings are only a guide toward this end, albeit objective ones to the degree possible.
- Rule 1: Two pathways. Note that the present rating system is sufficiently flexible to accommodate (a) a Regular pathway/system in the rating without cognitive/neuropsychological testing and (b) a second pathway of cognitive/neuropsychological testing. The rules provide clear instructions on how to use one pathway, the other, or both. That being said, most of the following rules apply to the Regular system and extra ones for the cognitive/neuropsychological system are given toward the end.
- Rule 2: Forced-choice. With respect to forced-choice measures, evaluators are advised to include in their assessments "well-validated tests designed to measure exaggeration or fabrication of psychiatric/psychological (e.g., cognitive or perceptual) symptoms," and criteria have been described above for determining the level of malingering/response bias according to the results obtained on forced-choice tests. Essentially, there are two levels to consider: (a) below-chance performance, considered more problematic, and (b) failing to reach critical thresholds based on normative or otherwise validly-selected and justified cut-scores.
- Rule 3: Tests. The inclusion in the criteria of "well-validated tests designed to measure exaggeration or fabrication of psychiatric/psychological (e.g., cognitive or perceptual) symptoms" includes psychological tests other than forced-choice ones that might provide evidence in formal psychological evaluation that the person has significantly misrepresented current status (e.g., exaggerated or minimized psychological symptoms/distress) in a manner that emphasizes the injury for which compensation is sought.
- Rule 4: MMPI family. For example, responses on self-report measures of psychological function suggest impairment in the context of elevations on well-validated validity scales or indices consistent with exaggeration of physical/somatic (e.g., MMPI-2 FBS, MMPI-2-RF FBS-r or SVT-r) or emotional symptoms (e.g., MMPI-2 F, Fb, or Fp, or related MMPI-2-RF scales), or newer effort detection scales (e.g., RBS, HHI); or, on these measures, as well, evidence of vehement denial of psychological problems in a manner consistent with extreme defensiveness regarding psychological symptoms in order to further emphasize psychological complaints (e.g., MMPI-2 L or K at noted cut-offs, or their MMPI-2-RF equivalents).
- Rule 5: Other tests needed. The underlying assumption in listing all these instruments is that they provide relevant information for the present ratings; but they do vary in the information that they provide, the levels of the cut-offs used, etc. Therefore, evaluators need to be aware of further tests that could be used in evaluations; these are described below and scoring rules for them are listed.
- Rule 6: Improbable symptoms, etc. Well-validated instruments might include structured interview ones that aim to detect improbable symptoms, or extreme, too frequent, or otherwise non-credible ones, such as detected on the SIRS/SIRS-2 and the M-FAST.
- Rule 7: PTSD. In addition, tests might include dedicated PTSD ones, such as the DAPS or perhaps the TSI-2, that have embedded evaluee validity scales for under- and over-reporting.
- Rule 8: Pain. Tests aimed at other types of disability determinations, such as the BBHI-2 for pain and the RNBI for neurobehavioral symptoms, might be applicable, depending on the nature of the evaluee's assessment taking place, given the equivalent embedded evaluee validity scales in these instruments, for under- and over-reporting.
- Rule 9: Cognitive (embedded). Further, even when an assessment is not neuropsychological, good use could be made of embedded cognitive measures of invalidity/poor effort, such as for digit span.
- Rule 10: 10–15 Primary. Of all the tests/measures/scales/indicators administered that are not forced-choice tests or embedded



- neuropsychological/cognitive measures, 10–15 should be considered primary, or as the ones designated to furnish for the present system critical information needed for assessing malingering and related response biases.
- Rule 11: 5–8 Critical. The criteria of the present system indicate that, aside from below-chance¹ results from forced-choice and neuropsychological/cognitive testing, 5–8 invalidity results, at most, are needed from among the 10–15 primary measures to obtain maximal scores/levels in the system. Note that because there are 10–15 primary indices and doing poorly on 5–8 of them indicates significant doubt about the credibility of the evaluee, this suggests that doing poorly on about 50 % (or more) of the primary indices is critical in establishing the evaluee's performance/effort quality. This rule has face validity.
- Rule 12: Not at cut-off. Note that below-chance¹ performance on forcedchoice testing is not counted in the primary indices, given its use elsewhere in the system. However, performance on these tests that do not meet cut-offs (even if higher than below-chance¹ performance) can count as among the 10–15 primary indices of the system, if specified beforehand.
- Rule 13: Neuropsychology. Aside from stand-alone forced-choice tests such as the VSVT, structured interviews such as the SIRS/SIRS-2, and tests such as the MMPI family ones, when the assessment is neurocognitive or neuropsychological, many different embedded validity/effort detector tests/measures/scales can be used, given the tens of domains tested and the utility of having more than one for each domain. as needed.
- Rule 14: Supplementary tests. However, the data obtained from these instruments should not be used as part of the 10–15 primary ones needed for purposes of obtaining ratings in the present system. That is, essentially, they should be used separately from the Regular system, and stand apart from them for use in the cognitive/neuropsychological one.
- Rule 15: Secondary information. That is, these extra data sources might contribute secondary information to the Regular rating system, at best, aside from any data that they furnish for purposes outside the Regular rating system to the cognitive/neuropsychological one.
- Rule 16: Pattern analysis. The same applies for neurocognitive/ neuropsychological test pattern analysis deriving from these tests; normally, they should not be considered for use in the Regular system.
- Rule 17: Limited cognitive testing. Note that if limited cognitive testing is given, rather than full-blown cognitive/neuropsychological testing, and there are not many validity indicators/tests/measures/scales available because of this decision, it might be best to consider them for rating of the Regular and not cognitive/neuropsychological path.
- Rule 18: Neuropsychological path. That being said, there are rules given below (see Rules 41 to 44) that apply to rating the present system for the second path when full-blown cognitive/neurocognitive testing is administered.
- Rule 19: Test independence. The selection of instruments chosen in an assessment must be carefully organized so that, to the degree possible, they are relatively independent and tapping different aspects of psychological function/response bias.
- Rule 20: Prioritizing. For example, if two similar results are obtained for two tests that are aimed at measuring the same type of response bias, they should not both be considered as primary in the present rating system and both used to inflate the ratings.
- Rule 21: Exception 1. One exception to this rule is when the better measure of the two yields negative results and the second one yields positive results; perhaps valid arguments are possible to justify using the secondary measure as the primary one.
- Rule 22: Exception 2. Moreover, tests are never perfectly correlated, and even if they are substantially correlated, they might reflect different constructs to a degree. Therefore, consistent with the multitrait-multimethod approach, two very similar tests having positive results

- could be used in the ratings with the present system, if this decision can be appropriately justified.
- Rule 23: Exception 3. Nevertheless, in general, to repeat, evaluators should avoid such reduplication in obtaining scores from tests administered in their batteries for rating purposes. They can accomplish this by selecting measures that are relatively independent and aimed at different categories of psychological function/response bias. For example, if the MMPI-2-RF is administered, any scores from another personality inventory that might be administered should not be considered as primary in calculating level of response bias in the present system. That being said, if a secondary omnibus instrument, such as a personality inventory, has a useful scale that is considered better for the purposes of the evaluation relative to those in the primary one, that scale in the secondary one can be used in ratings with the present system.
- Rule 24: Exception 4. Note that this rule about generally trying to avoid duplication/overlap/correlated tests in establishing ratings with the present system does not apply to the needed use of several stand-alone, forced-choice tests, because they are cardinal in determining the presence of malingering.
- Rule 25: Maximum use 1. For instruments that have more than one scale aimed at detecting effort or feigning, such as the MMPI family of tests, or in cognitive evaluation, the rule should be that any instrument of this type should contribute at most 3–4 primary measures among the 10–15 maximum that are needed in the present system to arrive at ratings, even if there are more than 3–4 of them that are included in the instrument and that have been scored. This rule needs implementation to avoid using only one of these instruments to obtain the needed results for all of the 5 primary validity indicators among the 10–15 required for obtaining results that can be used for a maximum rating in the present system.
- Rule 26: Omnibus tests. In cases where assessors use two or more omnibus instruments with more than one relevant validity measure, as mentioned, one must be considered primary, with its validity scores used rather than any of the others. For this rule, everything else being equal, the MMPI family of tests is considered primary in such cases for rating with the present system.
- Rule 27: Dedicated Tests. For PTSD or pain assessments, when two or more dedicated tests, such as the DAPS for PTSD, are used, normally only one should provide scores as primary measures for purposes of the present ratings.
- Rule 28: Nondedicated tests. When validity indicators of feigning are used in tests that do not directly apply to PTSD or pain, or when they do not have associated with them research showing their applicability to the population at hand, their use must be justified. Moreover, for any one assessment, only one test from among them and, further, only one score from it should be used in the ratings.
- Rule 29: Maximum use 2. If these tests are dedicated ones to detecting feigning, such as the SIRS, as long as they are validated for the population at hand, weighting of 2–3 of their measures could be used as part of the 10–15 primary ones for rating in the present system.
- Rule 30: Adjusted rating, lowering it. When evaluees (a) score in the superior range for good effort on a validity indicator, if applicable, and/or (b) pass a majority of the validity tests/measures/scales given in the full battery, and/or (c) score positive for measures related to symptom minimization or underreporting of post-event symptoms at claim, they should be credited a half-level for each case in the reverse direction on the rating scale, up to a maximum of one full level in the reverse direction on the scale.
- Rule 31: Adjusted rating, raising it. When evaluees (a) score in the superior range (e.g., 98th percentile) for poor effort on a validity indicator, if applicable, and/or (b) fail a majority of the validity tests/measures/scales given in the full battery, and/or (c) score positive for measures related to symptom minimization or underreporting of preevent symptoms at claim, they should be credited a half-level for each



- case in the higher direction on the rating scale, up to a maximum of one full level in the higher direction on the scale.
- Rule 32: Patterns. Clinical scales might prove informative for their patterns, such as on personality inventories. For example, in the MMPI family of tests, certain codes are associated with problematic clinical presentations with respect to effort and evaluee validity. Patterns such as this should be considered for half-level adjustment (lower, higher), as part of the prior two rules.
- Rule 33: Preselection. In choosing usable measures from batteries that had been administered for rating purposes, decisions about which measures to use should be made beforehand, including the weightings involved, as justified and based on the scientific literature.
- Rule 34: Fishing expeditions. Evaluators should avoid fishing expeditions of selecting just-right tests, and once the data are gathered, just-right scores, in order to get just-right conclusions to assessments, thereby lacking impartiality, comprehensiveness, and scientific underpinnings.
- Rule 35: No exceptions. Evaluators should not ignore pre-selected measures, ones chosen for use beforehand according to the requirements of the present system, and they should not avoid administering obvious ones to use for rating in the battery, such as the MMPI family ones.
- Rule 36: Ecological validity. Evaluators should administer the tests in a way that has ecological validity, e.g., spreading them out and not giving one after the other.
- Rule 37: Warnings. Evaluators should consider the issue of advising evaluees about tests, especially forced-choice ones, according to prevailing professional guidelines.
- Rule 38: Qualifications. Only mental health professionals who are professionally qualified should select, administer, and interpret psychological tests.
- Rule 39: State-of-the-art. It is important to note that the evaluator needs to use the most current, psychometrically and forensically valid instruments available, and not just the ones mentioned in this version of the F-PTSDR-D written in 2014.
- Rule 40: No harm. In short, aside from using an appropriate battery of measures for the ratings that can be derived from the present system, each instrument selected should be administered in a way that does not harm the evaluee, while still permitting that the information required is gathered.
- Rule 41: Cognitive/Neuropsychological testing. When an evaluation includes cognitive/neuropsychological testing, the procedures described in the present system can be complemented by a second path or track. Typically, in cognitive/neuropsychological testing, there are tens of evaluee validity indicators/tests/measures/scales that might be administered. The present system allows for 10–15 primary measures outside of cognitive/neuropsychological testing and, from among these, 5–8 critical validity indicators/tests/measures/scales with (positive) data are selected. In this regard, from among the cognitive/neuropsychological tests administered, an additional 10–15 primary measures and 5–8 critical validity indicators/tests/measures/scales can be selected from among the cognitive/neuropsychological tests administered.
- Rule 42: Rating cognitive/neuropsychological tests. The rules of the present system should be applied to the cognitive/neuropsychological primary measures and critical results that are derived from application of Rule 41. That is, they will help arrive at evaluations of Definite to Probable Response Bias, in particular.
- Rule 43: Cognitive/Neuropsychological and Regular rating. When both the Regular path in using the present rating system and the supplementary cognitive/neuropsychological one are both positive and lead to high ratings of response bias for an evaluee, this should be indicated.
- Rule 44: Positive results for only one of the two paths. When either cognitive/neuropsychological or Regular rating leads to high ratings of response bias for an evaluee, but not both, this should be indicated.

- Conclusions to evaluations should note the difference in the two ratings and its implications.
- Rule 45: Cognitive/Neuropsychological path alone. Of course, evaluators might want to proceed with just cognitive/neuropsychological testing in the second pathway of the system, and not use at all the Regular pathway. In this regard, they would use simply the embedded cognitive/neuropsychological validity indicators/tests/measures/scales with forced-choice measures, and none of the personality, structured interviews, and specific dedicated measures.
- Rule 46: Test selection. The system is very flexible and, when testing is involved, the amount of tests/measures/scales administered can be as low as several to as high as multiples of 10.
- Rule 47: Minimal testing. Minimally, at least when the Regular path or track is taken, appropriate use of the system requires a good omnibus personality test, such as the MMPI-2-RF or the PAI, a good feigning-detection interview instrument, such as the SIRS/SIRS-2 or M-FAST, a specific, dedicated test, and one or more stand-alone forced-choice measures, such as the VSVT or the TOMM. (Recommendations for 2014.)
- Rule 48: Less than minimal testing. If evaluators choose to administer even less testing than this, they risk not having the option of getting sufficient critical tests/measures/scales/indicators that can be used to rate the upper levels of the rating system.
- Rule 49: Less testing yet doing enough. That being said, there are both testing and non-testing rules that could be used to supplement below-minimum test use, for example, the one concerning especially high failure performance on tests (98 % percentile or more; see above) and the one for the whole file (see below).
- Rule 50: Justify less testing. A problematic practice is that evaluators who are trained in psychological testing use less testing in assessments than the recommended minimum even when more testing can be administered. For example, it is conceivable that partially sufficient information can be gathered just in administering an MMPI family test, a structured interview one, or one forced-choice test. However, this option is strongly recommended against, unless it can be clearly justified, e.g., due to the level of concomitant physical or brain injuries, language barriers, etc. In such cases, it might be sufficient to use less that the recommended minimum of tests.
- Rule 51: Larrabee (2012a). As an aside, it is noted that the structure established in the present system through its rules enables evaluators to arrive at high ratings on the present rating system in terms of malingering and definite response bias. For example, the system enables high ratings when there are positive results or performance on three or even two tests/measures/scales/validity indicators, which is consistent with the spirit of the work of Larrabee (2012a). Indeed, the system created might even be more sensitive to obtaining results at these higher levels compared to Larrabee's procedures, given the rules developed. That being said, consideration of the whole file and alternative explanations, such as a cry for help, might render it less sensitive. This illustrates perfectly the middle-of-the-road, balanced approach that characterizes the present system. It was constructed with good rationale and logical perspectives, good scientific and practical ones, and consideration of other systems, published recommendations for their change, and other state-of-the-art literature. Evaluators should function from the same middle-of-the-road and state-of-the-art perspective in applying the system to their evaluees. Evaluators might want to check the conclusions derived from using the present system with those of Larrabee (e.g., likelihood ratios, positive predictive power, probability of multiple positive findings), or any other system of an actuarial, algorithmic nature for malingering detection, assuming the literature supports their use, using a comparecontrast format to help justify the use of the present system and the conclusions it allows for any assessment at hand.
- Rule 52: Supplementary evaluators. Evaluators not trained in testing can acquire the services of those trained and competent to administer the types of tests recommended for use in the present system.



- Rule 53: Seconding team work. Note that the evaluator who acquires such testing services is responsible for applying the present system to the case at hand, but only the testing evaluator can be responsible for interpreting the test data portion of the evaluation.
- Rule 54: Leading team work. Or, evaluators might be trained and competent in testing, but prefer to have a second evaluator (help) seek inconsistencies/discrepancies in the file. The testing evaluator would be responsible for the inconsistencies/discrepancies noted and for combining all the information gathered for present rating purposes.
- Rule 55: Interdisciplinary assessments. Evaluators using the present system might be functioning within the context of interdisciplinary teams of assessors. In contributing to and/or signing any executive summary, they are responsible as much as the others for how the ratings are used and for any overall alterations in equivalent ratings by the team.
- Rule 56: Specific dedicated tests. [As of 2014.] If tests dedicated to specific psychological injuries are administered, such as in the Regular track, the DAPS and perhaps the TSI-2 make sense for PTSD, and the BBHI-2 or BHI-2 would be good for pain. In this regard, there are multiple cognitive or related measures that could be used. Other tests. Some other relevant instruments include the RNBI, the VIP, the WMT, and the MENT.
- Rule 57: Altering rules on testing and test battery. As of 2014, the test battery rules and the testing procedures and tests indicated in the present system are the ones that can be scientifically and practically justified. However, as concepts and research accumulate, recommendations to change the present system might appear in the scientific literature and research that are both reliable and valid. Or, assessors might alter a rule or rules or use of the present system and its proposed testing battery in a way that is scientifically and practically justified. For example, the number of primary and critical tests and measures, presently are set at 10–15 and 5–8, respectively, but slight variations in these amounts might be acceptable at the scientific and practical levels.
- Rule 58: Special populations. The usual cautions about using the correct norms for scoring and being sensitive to gender, minorities, age, and related differences apply to testing for the present system. Note that for children, the BASC-2 has appropriate validity checks.
- Rule 59: Consider whole file. The rating of any level of negative response bias that is attributed to an evaluee according to the present system can be adjusted higher or lower by one-half to one full rating level on the scale depending on any additional reliable information in the assessment that is not considered elsewhere. These factors might include evaluator ones, evaluee ones, or systemic ones. The rationale for this decision must be documented. For example, litigation distress might be evident, but that could reflect either (a) non-merited factors, such as apprehension at continued evaluations that have reliably found difficulties with presentation/performance in the evaluee, or (b) genuine externally generated stress related to the case, e.g., by third parties.
- Rule 60: Combining test data with inconsistencies/discrepancies. Criterion C elaborates rules for combining test data with inconsistencies/discrepancies, after presentation of 30 possible inconsistencies/discrepancies.
- <u>Criterion C</u>: Evidence from Inconsistencies/Discrepancies, With or Without Test Data Considered.
- Inconsistency/discrepancy criteria can be used separately from those of the B set, or in conjunction with them, as presented in the second part of the C criteria. Inconsistencies/discrepancies can be found at two levels. Either marked/substantial or moderate/nontrivial evidence of inconsistency/discrepancy is possible. Moreover, marked/substantial inconsistencies/discrepancies can be divided into those that are less or most extremely compelling, such as in cases of frank admission, videographic evidence of working after being at work has been denied, and frank evidence elsewhere in the file, e.g., related to collateral information. Trivial evidence in these regards should be ignored. For the two levels of inconsistencies/discrepancies possible, with the more blatant ones receiving the highest rating, there is a subjective element in classifying them. Therefore, evaluators should be conservative when characterizing them as marked or substantial relative to moderate or nontrivial,

- and justify all classifications in these regards with clear material from the file and careful argument. Note that in section B3-4ii below, 15 examples are provided of possible inconsistencies/discrepancies, aside from the few examples provided in the sections that follow. a) Inconsistencies/Discrepancies in Conjunction with Testing
- a1) Inconsistency/Discrepancy between cognitive/neurocognitive test data and known patterns of brain functioning (e.g., as related to PTSD). In this regard, a pattern of test performance that is either markedly/substantially or moderately/nontrivially
- inconsistent/discrepant from currently accepted models of normal and abnormal central nervous system (CNS) function. The inconsistency/discrepancy must be consistent with an attempt to exaggerate or fabricate psychological dysfunction in testing (e.g., patient reports that she/he does not sleep at all). (Inconsistency #1)
- a2) Inconsistency/Discrepancy, either marked/substantial or moderate/nontrivial, between test data of PTSD-related symptoms after event at claim and known patterns of physiological reactivity. (Inconsistency #2) a2i) Inconsistency/Discrepancy, either marked/substantial or moderate/nontrivial, between test data of PTSD-related symptoms after event at claim and known patterns of physiological reactivity in the ambulance, at hospital, or shortly thereafter (e.g., no heart-rate increase with significant change in subjective traumatic reaction report). (Inconsistency #2. first example)
- a2ii) *Inconsistency/*Discrepancy, either marked/substantial or moderate/nontrivial, between test data of PTSD-related symptoms after event at claim and known patterns of physiological reactivity in psychotherapy (e.g., no increase in neurovegetative signs during exposure therapy or systematic desensitization).
- a2iii) *Inconsistency/*Discrepancy, either marked/substantial or moderate/nontrivial, between test data of PTSD-related symptoms after event at claim and known patterns of physiological reactivity to psychotropic medication (e.g., no decrease in neurovegetative signs to symptom-relevant medication).
- a3) Inconsistency/Discrepancy, either marked/substantial or moderate/nontrivial, between test data and self-report. (Inconsistency #3) a3i) Inconsistency/Discrepancy, either marked/substantial or moderate/nontrivial, between test data on psychological status prior to event at claim and self-reported background history in interview. (Inconsistency #3, first example)
- a3ii) Inconsistency/Discrepancy, either marked/substantial or moderate/nontrivial, between test data of PTSD-related symptoms after event at claim and self-reported behavior/symptoms/complaints/limitations/functions in interview.
- a4) Inconsistency/Discrepancy, either marked/substantial or moderate/nontrivial, between test data of PTSD-related symptoms after event at claim and verbal and/or nonverbal observed behavior/symptoms/complaints/limitations/functions. (Inconsistency #4)
- a4i) Inconsistency/Discrepancy, either marked/substantial or moderate/nontrivial, between test data of PTSD-related symptoms after event at claim and observed behavior/symptoms/complaints/limitations/functions while unaware of being observed. (Inconsistency #4, first example)
- a4ii) Inconsistency/Discrepancy, either marked/substantial or moderate/nontrivial, between test data of PTSD-related symptoms after event at claim and observed behavior/symptoms/complaints/limitations/functions while aware of being observed (e.g., evaluee endorses items indicating extreme fear in driving yet is observed to/indicates that driving to and from the session was okay).
- a5) Inconsistency/Discrepancy, either marked/substantial or moderate/nontrivial, between test data and information reported by reliable informants/collaterals. (Inconsistency #5)
- a5i) Inconsistency/Discrepancy, either marked/substantial or moderate/nontrivial, between test data of PTSD-related symptoms on psychological status prior to event at claim and information reported by reliable informants/collaterals, such as primary care physicians and spouses, about background history. (Inconsistency #5, first example)



a5ii) Inconsistency/Discrepancy, either marked/substantial or moderate/nontrivial, between test data of PTSD-related symptoms after event at claim and information reported by reliable informants/collaterals, such as primary care physicians and spouses, about behavior/symptoms/complaints/limitations/functions (e.g., evaluee endorses items indicating extreme fear in driving yet is reported by spouse to drive without a problem).

a6) Inconsistency/Discrepancy, either marked/substantial or moderate/nontrivial, between test data and information reported in reliable documents. (Inconsistency #6)

a6i) Inconsistency/Discrepancy, either marked/substantial or moderate/nontrivial, between test data on psychological status prior to event at claim and information reported in reliable documents, such as by primary care physicians and other mental health professionals, about background history. (Inconsistency #6, first example)

a6ii) Inconsistency/Discrepancy, either marked/substantial or moderate/nontrivial, between test data of PTSD-related symptoms after event at claim and information reported in reliable documents, such as by primary care physicians and other mental health professionals, about behavior/symptoms/complaints/limitations/functions (e.g., there is no documented history of psychological trauma in the ambulance or ER reports, yet the evaluee consistently endorses extreme traumatic reactions in the ambulance, at the hospital, or shortly thereafter).

b) Inconsistencies/Discrepancies in Conjunction with Self-Report (other than with testing)

Evidence that the evaluee's self-reported behaviors, symptoms, complaints, or limitations and functions related to PTSD and related disorder/dysfunction are clearly consistent with exaggeration or feigning of physical, cognitive, or emotional/psychological components of the PTSD-related disability in that there is either a marked/substantial or moderate/nontrivial inconsistency/discrepancy between such self-report and any of the following:

b1) Known patterns of brain function. (Inconsistency #7)
b2) Known patterns of physiological function. (Inconsistency #8)
[Self-reported PTSD-related symptoms are clearly discrepant with known patterns of physiological or neurological functioning (e.g., PTSD complaints by themselves should not be able to elicit marked/substantial, or moderate/nontrivial complaints of remote memory loss; PTSD complaints should not be able to elicit repetitive nightmares that exactly repeat the traumatic event and no other nightmares).]

b3) Observed behavior/symptoms/complaints/limitations/functions. (Inconsistency #9)

b3i) Observed behavior/symptoms/complaints/limitations/functions while unaware of being observed. (Inconsistency #9, first example) b3ii) Observed behavior/symptoms/complaints/limitations/functions while aware of being observed.

[Self-reported PTSD-related symptoms are clearly inconsistent/discrepant with reliable observations of behavior. Reported symptoms in a given behavioral domain (i.e., physical, cognitive, emotional; PTSD-related) are markedly/substantially or moderately/nontrivially inconsistent/discrepant with behavioral observations (e.g., patient complains of being unable to sleep well but appears quite alert). Such observation may occur in the context of formal evaluation.]

b4) Information reported by reliable informants/collaterals, such as primary care physicians and spouses. (Inconsistency #10) b4i) Information reported by reliable informants/collaterals, such as primary care physicians and spouses, about background history. (Inconsistency #10, first example)

b4ii) Information reported by reliable informants/collaterals, such as primary care physicians and spouses, about behavior/symptoms/complaints/limitations/functions.

[Self-reported PTSD-related symptoms are clearly discrepant with reliable observations of behavior. Reported symptoms in a given behavioral domain (i.e., physical, cognitive, emotional; PTSD-related) are markedly/substantially or moderately/nontrivially inconsistent/

discrepant with behavioral observations (e.g., patient complains of being unable to sleep well but appears quite alert). Such observation may derive from the report of reliable collateral informants (e.g., evaluee's friends or relatives).]

b5) Information reported in reliable documents, such as by primary care physicians and other mental health professionals. (Inconsistency #11)

b5i) Information reported in reliable documents, such as by primary care physicians and other mental health professionals, about background history. (Inconsistency #11, first example) b5ii) Information reported in reliable documents, such as primary care

physicians and other mental health professionals, about behavior/ symptoms/complaints/limitations/functions. [Self-reported history is clearly inconsistent/discrepant with documented history, the evidence for which is reliable. For

[Self-reported history is *clearly* inconsistent/discrepant with documented history, *the evidence for which is reliable*. For example, minimization or denial of *marked/substantial or moderate/nontrivial* concurrent or prior illness/injury (broadly defined) in a manner that emphasizes the injury for which compensation is sought. Also included would be *marked/substantial or moderate/nontrivial* overstatement of academic, vocational, or other achievement in a way that exaggerates the magnitude of loss due to the injury in question.]

c) Inconsistencies/Discrepancies in Conjunction with Observations (other than with testing and with self-report)

Evidence that the evaluee's verbal and/or nonverbal observed behaviors, symptoms, complaints, or limitations and functions related to PTSD and related disorder/dysfunction are clearly consistent with exaggeration or feigning of physical, cognitive, or emotional/psychological components of the PTSD-related disability in that there is either a marked/substantial or moderate/nontrivial inconsistency/discrepancy between such observations and any of the following:

c1) Known patterns of brain function. (Inconsistency #12)

c2) Known patterns of physiological function. (Inconsistency #13)

c3) Information reported by reliable informants/collaterals, such as primary care physicians and spouses. (Inconsistency #14)

c3i) Information reported by reliable informants/collaterals, such as primary care physicians and spouses, about background history. (Inconsistency #14, first example)

c3ii) Information reported by reliable informants/collaterals, such as primary care physicians and spouses, about behavior/symptoms/complaints/limitations/functions.

c4) Information reported in reliable documents, such as by primary care physicians and other mental health professionals. (Inconsistency #15)

c4i) Information reported in reliable documents, such as by primary care physicians and other mental health professionals, about background history. (Inconsistency #15, first example)

c4ii) Information reported in reliable documents, such as by primary care physicians and other mental health professionals, about behavior/symptoms/complaints/limitations/functions.

d) Inconsistencies/Discrepancies in Conjunction with Collateral Information (other than with testing, self-report, and observations)

Evidence that the evaluee's collaterally reported behaviors, symptoms, complaints, or limitations and functions related to PTSD and related disorder/dysfunction are clearly consistent with exaggeration or feigning of physical, cognitive, or emotional/psychological components of the PTSD-related disability in that there is either a marked/substantial or moderate/nontrivial inconsistency/discrepancy between such reports and any of the following:

d1) Known patterns of brain function. (Inconsistency #16)

d2) Known patterns of physiological function. (Inconsistency #17)

d3) Information reported in reliable documents, such as by primary care physicians and other mental health professionals. (Inconsistency #18)



- d3i) Information reported in reliable documents, such as by primary care physicians and other mental health professionals, about background history. (Inconsistency #18, first example) d3ii) Information reported in reliable documents, such as by primary care physicians and other mental health professionals, about behavior/symptoms/complaints/limitations/functions.
- e) Inconsistencies/Discrepancies in Conjunction with Documentation (other than with testing, self-report, observations, and collateral information)
- Evidence that the evaluee's documented behaviors, symptoms, complaints, or limitations and functions related to PTSD and related disorder/dysfunction are clearly consistent with exaggeration or feigning of physical, cognitive, or emotional/psychological components of the PTSD-related disability in that there is either a marked/substantial or moderate/nontrivial inconsistency/discrepancy between such documentation and any of the following:
 - e1) Known patterns of brain function. (Inconsistency #19)
 - e2) Known patterns of physiological function. (Inconsistency #20) f) Inconsistencies/Discrepancies Within Major Data Sources (not be-
 - tween them, which are scored above)
 - f1) Known patterns of brain function. (Inconsistency #21)
 - f2) Known patterns of physiological function. (Inconsistency #22)
 - f3) Self-report. (Inconsistency #23)
 - f3i) Self-report of background history. (Inconsistency #23, first example) f3ii) Self-report of behavior/symptoms/complaints/limitations/functions.
 - f4) Observed behavior/symptoms/complaints/limitations/functions. (Inconsistency #24)
 - f4i) Observed behavior/symptoms/complaints/limitations/functions while unaware of being observed. (Inconsistency #24, first example)
- [Compelling self-presentation inconsistency/discrepancy. Compelling self-presentation inconsistencies/discrepancies occur when the difference in the way an evaluee presents verbally and/or nonverbally when being evaluated compared with when not aware of being evaluated is marked/substantial or moderate/nontrivial and such that it is not reasonable to believe the evaluee is not purposely controlling the difference and other explanations do not readily apply.]
 - f4ii) Observed behavior/symptoms/complaints/limitations/functions while aware of being observed.
 - f5) Information reported by reliable informants/collaterals. (Inconsistency #25)
 - f5i) Information reported by reliable informants/collaterals, such as primary care physicians and spouses, about background history. (Inconsistency #25, first example)
 - f5ii) Information reported by reliable informants/collaterals, such as primary care physicians and spouses, about behavior/symptoms/complaints/limitations/functions.
 - f6) Information reported in reliable documents. (Inconsistency #26) f6i) Information reported in reliable documents, such as by primary care physicians and other mental health professionals, about background history. (Inconsistency #26, first example)
 - f6ii) Information reported in reliable documents, such as primary care physicians and other mental health professionals, about behavior/symptoms/complaints/limitations/functions.
 - g) Other, Miscellaneous Inconsistencies/Discrepancies (e.g., there is evidence of no material causation for alleged psychological/psychiatric effects of event at claim)
 - [Self-reported symptoms are clearly discrepant with claimed causal factors, such as an index event. There are marked/substantial or moderate/nontrivial multiple pre-existing and concurrent, but incidental, extraneous factors, reliably ascertained, that can clearly account for the evaluee's presentation pertaining to the diagnosis and disorder/disability at issue much more than an event at claim or even fully, but the evaluee keeps insisting that the event at claim explains all of or a good portion of the sequelae to the event in his/her presentation. Arguments of this

- nature must be made clearly by the evaluator, given the confounding counter-arguments possible.]
- g1) No causality attributable to the event at claim, despite the evaluee's insistence. (Inconsistency #27)
- g2) Only minimal causality attributable, and out of the material range, despite the evaluee's insistence. (Inconsistency #28)
- g3) Material-level causality attributable to the event at claim, but not to the degree insisted by the evaluee. (Inconsistency #29) g4) Other. (Inconsistency #30)

B. Different Degrees of Certainty of Response Bias, According to Inconsistencies/Discrepancies

- B1) Definite Malingering.
 - i) One extremely compelling inconsistency/discrepancy that takes the form of (a) outright admission, (b) incontrovertible evidence on videographic surveillance, such as working after denial that it is taking place, or (c) or reliable collateral information in these regards. Other compelling inconsistencies of a less red-handed, extreme nature require three pieces of evidence for consideration at this level.
 - ii) The evidence is incontrovertible (blatant, indisputable) when all the data gathered are considered. Three or more marked/substantial inconsistencies/discrepancies from items a–g above,

Or; iii)

- a) One marked/substantial inconsistency/discrepancy from items a–g,
- b) Performance on four (not five) well-validated tests designed to measure exaggeration or fabrication of psychiatric/psychological (e.g., cognitive or perceptual) symptoms, including forced-choice measures, is consistent with exaggeration of diminished functional psychiatric/psychological capacity.

Or;

iv)

- a) Two marked/substantial inconsistencies/discrepancies from items a-g, and
- b) Performance on three (not five) well-validated tests designed to measure exaggeration or fabrication of psychiatric/psychological (e.g., cognitive or perceptual) symptoms, including forced-choice measures, is consistent with exaggeration of diminished functional psychiatric/psychological capacity.
- B2) Definite negative response bias.
 - i) Two marked/substantial inconsistencies/discrepancies from items a–g, Or;

ii)

- a) One marked/substantial inconsistency/discrepancy from items a–g, and
- b) Performance on three (not four) well-validated tests designed to measure exaggeration or fabrication of psychiatric/psychological (e.g., cognitive or perceptual) symptoms, including forced-choice measures, is consistent with exaggeration of diminished functional psychiatric/psychological capacity.
- B3) Probable negative response bias.
- i) One marked/substantial inconsistency/discrepancy from items a–g, Or,

ii)

- a) Five moderate/nontrivial inconsistencies/discrepancies from items a–g, and
- b) Performance on two (not three) well-validated tests designed to measure exaggeration or fabrication of psychiatric/psychological (e.g., cognitive or perceptual) symptoms, including forced-choice measures, is consistent with exaggeration of diminished functional psychiatric/psychological capacity.
- B3-4) Intermediate (Probable to possible, gray zone) negative response hias.
- The data meet the requirements for classification of possible negative response bias but not the classification of probable negative response



bias. Nevertheless, there are supplementary data available about the evaluee that raises the ratings. For inconsistencies/discrepancies that have not been considered elsewhere in the system rating as marked/ substantial or moderate/nontrivial, this could refer to:

i) Inconsistencies/discrepancies are reliably found in other assessments, such as different specialists in a multidisciplinary assessment of the evaluee that address pertinent mental health issues. Or;

ii) There is clear evidence of or other confounding factors that might cast doubt on the validity of either the evaluee's presentation on performance validity, although this would have to be clearly documented. In this regard, the evaluee would have to show five or more of the following 15 factors, as supported by clear evidence (five of these are needed because often they are hard to determine, so that even with some evidence in their support, five is considered the minimum needed to use this option in the present scoring system).

That being said, when one to four of these criteria are evident instead of five or more, and so they cannot be used as part of the data for rating Probable Response Bias, as per the above, the evaluator should use these as part of the ratings for Possible Negative Response bias, as per below, including them with the other inconsistencies/discrepancies in items a-g therein. Also, if the rating of Probable Negative Response Bias is almost attained but one or more moderate/nontrivial inconsistencies/discrepancies from items a-g are lacking, the ones from this list for Intermediate Negative Response Bias can be used.

a) Personality disorder of a problematic nature, e.g., (i) antisocial personality disorder according to the DSM, or (ii) features of/ subsyndromal expressions of one, or (iii) confrontational/uncooperative, resisting/refusing, without clear signs that the behavior is related to the claimed injury or other conditions such as schizophrenia, etc. b) Blaming everyone and anything, overly suspicious, etc., without

clear signs that the behavior is related to the claimed injury or other conditions, such as schizophrenia, etc.

c) Not trying to mitigate loss; not being active in recommended therapy; not being a compliant patient adhering to treatment regimens,

d) Unduly adopting the sick role, accepting overly solicitious behavior,

e) Somatization effects not related to the influences of the claimed psychiatric/psychological injury.

f) Failure to treat substance abuse impeding progress, whether preevent or post-event related, including of abuse of prescribed eventrelated medications.

g) Failure to take recommended medications, such as anti-depressants or needed pain medications, if applicable, for invalid medical reasons. h) Refusing a work-hardening trial, refusing modified duties, refusing training for new work within residual capacities and transferable skills, etc., as long as these options are psychiatrically/psychologically (and medically) indicated.

i) Catastrophizing/crying out for help at a level clearly beyond the nature of the injuries, even after education about it (if not used elsewhere).

j) Any other confound that is documentable, such as attorney or similar coaching.

As well, five factors derived from the pre-event background are considered as possible confounding factors that might cast doubt on the validity of the evaluee, although resilience to these stressors should be considered in balance:

k) Psychiatric/self harm/substance abuse history.

l) Criminal/legal/problematic military history; history of deceit/fraud. m) History of, irregularity in/dissatisfaction with work or other role at

n) History of, irregularity in/dissatisfaction with family, partners, friends, social life.

o) History of, financial stresses/bankruptcies/unsupported claims. B4) Possible negative response bias.

i) Four moderate, nontrivial inconsistencies/discrepancies from items a-g,

a) Three moderate, nontrivial inconsistencies/discrepancies from items a-g, and

b) Performance on one (not two) well-validated tests designed to measure exaggeration or fabrication of psychiatric/psychological (e.g., cognitive or perceptual) symptoms, including forced-choice measures, is consistent with exaggeration of diminished functional psychiatric/psychological capacity.

B5) Minimal negative response bias.

i) Two moderate, nontrivial inconsistencies/discrepancies from items a-g Or;

ii)

a) One moderate, nontrivial inconsistency/discrepancy from items a-g,

b) Just-below cut score performance on one (not two or more) wellvalidated tests so that performance is at most partially consistent with exaggeration of diminished functional psychiatric/psychological capacity.

B6) No evident response bias.

Not even one moderate, nontrivial inconsistency/discrepancy from items

Criterion D: Behaviors meeting necessary criteria from groups B and C are not fully accounted for by psychiatric, neurologic, or developmental, or other factors.

The behaviors meeting the above criteria represent a likely (inferred but evident) volitional act aimed at achieving some secondary gain and cannot be fully accounted for by other disorders that result in significantly diminished capacity to appreciate laws or mores against malingering or inability to conform behavior to such standards. The simple presence of objectively documented pathology, illness, or injury (including psychiatric illness) expressly does not preclude a diagnosis of malingering. However, the "diagnostic" system presented should be used conservatively and prudently, especially because of the harm to evaluees that can be caused by false attributions of malingering and related presentation/performance response biases. For example, the options of probable, intermediate, and possible levels of response bias expressly do not preclude validity of the evaluee's presentation, at least in part. Moreover, in arriving at conclusions about definite response bias, the evaluator is reminded (a) to evaluate the full data gathered for the evaluee and not just scores on one or more psychometric measures or computer interpretations of test results, and (b) the data must be gathered comprehensively, scientifically, and impartially. For example, an evaluee failing according to cut-off on three validity indicators might pass many more in the full battery administered and allowances could be made for these credible results, depending on other factors, such as their pattern. Importantly, attributions of overt malingering must especially take these factors and other relevant ones into account before concluding that malingering is present with incontrovertible evidence, or that other high ratings in the system are present at the level of "more likely than not" in the evaluee. That being said, when warranted, the astute evaluator can use language that clearly denies the credibility of the evaluee, even to significant degrees (despite having a lack of clear evidence about or knowledge of underlying motivation, and therefore without imputing directly motivation).

Note. This present rating system to evaluate non-credible, feigning/ malingering and other response biases and presentations/ performances in the psychiatric/psychological injury context is meant to be applicable to adult evaluees, in particular. It can be used with adolescents, though, but with caution, e.g., in terms of using different tests/measures/scales of validity/effort. An important general reminder is that any assessment and interpretation of instrument results need to be sensitive to relevant age, gender, cultural/minority, and related differences.



¹A reviewer recommended that I footnote all unqualified mentions of below-chance performance on forced-choice tests as statistically significant

Adopted from Young (2014a); Table 6.1

Adapted from Bianchini et al. (2005), which in turn was adapted from Slick et al. (1999).

Note. All relevant changes from the pain-related "diagnostic" system (MPRD) of Bianchini et al. (2005) are italicized for the present application to PTSD and related presentations.

Note for practice use of the table. The F-PTSDR-D rating system allows for evaluation of non-credible, feigned, or malingered evaluee presentation/performance by either (a) psychometric testing, (b) finding major inconsistencies/discrepancies in an evaluee's data, or both. As such, the present F-PTSDR-D system is a malingering-related "diagnostic" system, or classificatory model, that is usable by psychiatrists, psychologists, and other mental health professionals.

Also, for evaluees presenting with simultaneous neuropsychological/cognitive, pain-related, and/or polytrauma disorder/disability/dysfunction in conjunction with PTSD claims, aside from the present PTSD-related system, the assessor should consult the revised systems have been developed to replace the MND (Malingered Neurocognitive Dysfunction) and MPRD (Malingered Pain-Related Disability) systems of Slick et al. (1999) and Bianchini et al. (2005), respectively. See tables on the F-NCR-D and F-PR-D systems, respectively, and the recommendations for their simultaneous use.

Abbreviations. PTSD posttraumatic stress disorder; TBI traumatic brain injury; TOMM Test of Memory Malingering (Tombaugh, 1996); VSVT Victoria Symptom Validity Test (Slick, Hopp, Strauss, & Thompson, 1997/2005); WMT Word Memory Test (Green, 2005); VIP Validity Indicator Profile (Frederick, 1997); MMPI Minnesota Multiphasic Personality Inventory (Hathaway & McKinley, 1943); MMPI-2 Minnesota Multiphasic Personality Inventory, Second Edition (Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1989; Butcher et al., 2001); FBS (SVS) Fake Bad Scale (Symptom Validity Scale) (Ben-Porath & Tellegen, 2008/2011; Lees-Haley, English, & Glenn, 1991); MMPI-2-RF Minnesota Multiphasic Personality Inventory, Second Edition, Restructured Form (Ben-Porath & Tellegen, 2008/ 2011); r revised (Ben-Porath & Tellegen, 2008/2011); Fb Infrequent Responses, back (Ben-Porath & Tellegen, 2008/ 2011); Fp Infrequent Psychopathology Responses (Ben-Porath & Tellegen, 2008/2011); RBS Response Bias Scale (Gervais, Ben-Porath, Wygant, & Green, 2007); HHI Henry Heilbronner Index (Henry, Heilbronner, Mittenberg, & Enders, 2006); L Uncommon Virtues, Lie scale (Bianchini et al., 2005); K Adjustment Validity, Correction scale (Bianchini et al., 2005); SIRS Structured Inventory for Reported Symptoms (Rogers, Bagby, & Dickens, 1992); SIRS-2 Structured Inventory of Reported Symptoms, Second Edition (Rogers, Sewell, & Gillard, 2010); M-FAST Miller Forensic Assessment of Symptoms Test (Miller, 2001); PTSD posttraumatic stress disorder; DAPS Detailed Assessment of Posttraumatic Stress (Briere, 2001); TSI-2 Trauma Symptom Inventory, Second Edition (Briere, 2011); BBHI-2 Brief Battery for Health Improvement, Second Edition (Disorbio & Bruns, 2002); RNBI Ruff Neurobehavioral Inventory (Ruff & Hibbard, 2003); PAI Personality Assessment Inventory (Morey, 1991, 2007); BHI-2 Battery for Health Improvement, Second Edition (Bruns & Disorbio, 2003); MENT Morel Emotional Numbing Test (Morel, 1995, 1998); BASC-2 Behavior Assessment System for Children, Second Edition (Reynolds & Kamphaus, 2004).

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