

IN THE CIRCUIT COURT OF THE THIRTEENTH JUDICIAL CIRCUIT  
IN AND FOR HILLSBOROUGH COUNTY, FLORIDA  
CIVIL DIVISION

LLOYD CHARLES DAVIDSON  
Plaintiff,

vs.

STRAWBERRY PETROLEUM, INC. and  
ARNOLD L. HADEL  
Defendants.

Case No.: 05-4320

Division: A

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**ORDER GRANTING PLAINTIFF'S MOTION TO  
STRIKE OR LIMIT THE TESTIMONY OF DEFENSE EXPERT HAROLD SMITH OR  
IN THE ALTERNATIVE MOTION TO HOLD A HEARING TO DETERMINE IF THE  
METHODOLOGY IS "SCIENTIFICALLY ACCEPTED"**

This cause having come before this Court on May 30, 2007, upon Plaintiff's Motion To Strike Or Limit The Testimony Of Defense Expert Harold Smith Or In The Alternative Motion To Hold A Hearing To Determine If The Methodology Is "Scientifically Accepted" and after review of the file, argument of counsel, and the Court otherwise being fully informed it is hereby ordered and adjudged:

The Plaintiff's motion to strike any conclusions as to credibility, honesty, malingering, exaggeration and/or symptom exaggeration, best effort or lack thereof, symptom magnification regarding the fake bad scale or the MMPI2 are hereby GRANTED and shall apply not only to Dr. Smith but to any other witness (Plaintiff or Defense) reviewing the material in question. Further, and specifically as to the Fake Bad Scale:

After reviewing the affidavit of Dr. James N. Butcher expressing concerns as to the scientific validity of the Fake Bad Scale, and considering the fact that there is no hard medical science to support the use of this scale to predict truthfulness or lack thereof, and reviewing the

articles produced by both side I find.

1. Drawing conclusions from such a test which gives points for malingering when a plaintiff answers "true" to questions asking about conditions involving genuine physical pathology has no place in this courtroom.
2. Regardless of defense counsel's reference to articles which may support the use of this test, it is clear that
  - a. There is genuine controversy surrounding the use of this test.
  - b. No test can act as a lie detector which is how this test is being used by Dr. Smith or any other doctor.
  - c. Determining the truthfulness of a witness is the job of the jury and not a psychologist.
3. The Defendants argument and materials obtained from Pearson Assessments' website are not persuasive. *Sybers v. Florida*, 841 So.2d 532, (1st DCA 2003).

DONE AND ORDERED in chambers at Tampa, Florida on this \_\_\_\_ day of

\_\_\_\_\_, 2007.

ORIGINAL SIGNED  
CONFORMED COPY

JUN 14 2007

Sam D. Pendino, Circuit Court Judge

SAM D. PENDINO  
CIRCUIT JUDGE

copies to:

Matthew D. Powell, 304 S. Plant Avenue, Tampa, Florida 33606

Mitch Espot, Esq. for Strawberry, P.O. Box 2939, Tampa, Florida 33601

1 IN THE CIRCUIT COURT OF THE THIRTEENTH JUDICIAL CIRCUIT  
2 IN AND FOR HILLSBOROUGH COUNTY, FLORIDA  
3 CIVIL DIVISION

3 PATRICIA VANDERGRACHT and  
4 DAVID VANDERGRACHT, her husband,

5 Plaintiffs,

Case No.: 02-04552

6 vs.

Division: "E"

7 PROGRESSIVE EXPRESS, USAA INSURANCE  
8 COMPANY and TIG INSURANCE COMPANY,

9 Defendants.

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10 TRIAL EXCERPT

11 (Frye hearing)

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13 Before: Honorable Marva L. Crenshaw

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15 Date: March 9th, 2005

16 Place: George E. Edgecomb Courthouse  
17 800 East Twiggs Street  
18 Tampa, Florida

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20 Reported by: Vickie Hamer, RPR  
21 Notary Public  
22 State of Florida at Large

23

24 Pages 1 - 33

25

1 APPEARANCES:

2 MICHAEL GONZALEZ, ESQUIRE  
3 Law Office of Michael Gonzalez  
4 5020 West Cypress Street, Suite 100  
5 Tampa, Florida 33607

6 Attorney for Plaintiffs

7 DOROTHY CLAY SIMS, ESQUIRE  
8 Sims, Amat, Stakenborg & Henry, P.A.  
9 118 S.W. Fort King Street  
10 Ocala, Florida 34478

11 Attorney for Plaintiffs

12 CHRISTINE A. DONOGHUE, ESQUIRE  
13 Gray Robinson, P.A.  
14 201 N. Franklin Street, Suite 2200  
15 Tampa, Florida 33602

16 Attorney for Defendant Progressive Insurance

17 J. SCOTT BRASFIELD, ESQUIRE  
18 Brasfield, Fuller, Freeman & O'Hern  
19 2553 1st Avenue North  
20 St. Petersburg, Florida 33713

21 Attorney for Defendant USAA Insurance

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1     you read the articles he has produced, they don't say  
2     that it's reliable and reproduceable. In fact, they  
3     say there are questions and you shouldn't rely upon it  
4     as the significant or sole basis upon which to find  
5     malinger.

6     MR. GONZALEZ: May I --

7     THE COURT: These are the rules that govern  
8     trials. If you're going to make the argument, that's  
9     fine. If she's going to make the argument, that's  
10    fine, but not both of you.

11    MR. GONZALEZ: Was that argument?

12    THE COURT: Yes.

13    MS. SIMS: Could I cite the case, though, that I  
14    was referencing that indicated they did not produce an  
15    expert?

16    THE COURT: You may cite your case.

17    MS. SIMS: Okay. The Sybers, S-y-b-e-r-s, versus  
18    the State of Florida found at 841 So. 2d 532. Your  
19    Honor, it's a First DCA case. And the case indicates  
20    that the expert to support the new or novel test cannot  
21    be an individual who has a personal stake in the new  
22    theory or is prone to institutional bias.

23    THE COURT: This is my ruling on the very narrow  
24    issue which was raised as to whether or not he would be  
25    permitted to testify as to the Lees-Haley Fake Bad

1 Scale.

2 Although, the Court would be compelled to conclude  
3 based upon the expert's affidavit and testimony that  
4 facially he has demonstrated that the Lees-Haley Scale  
5 meets the requirements of Frey, when a qualitative  
6 analysis is undertaken, a contrary result is dictated.

7 I am giving the special weight to the factors of  
8 whether or not there is ample evidence that the test is  
9 accepted by his peers.

10 I am further giving special weight to the comments  
11 and concerns expressed by Butcher and Graham. So the  
12 motion in limine is granted.

13 END OF EXCERPT

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1 COURT CERTIFICATE

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3 STATE OF FLORIDA )

4 COUNTY OF SARASOTA )

5 I, VICKIE HAMER, Registered Professional Reporter,

6 certify that I was authorized to and did stenographically

7 report the foregoing proceedings and that the transcript is

8 a true and complete record of my stenographic notes.

9 Dated this 21st day of March, 2005.

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13 VICKIE HAMER,  
14 Registered Professional Reporter

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**IN THE CIRCUIT COURT OF THE THIRTEENTH JUDICIAL CIRCUIT  
IN AND FOR HILLSBOROUGH COUNTY, STATE OF FLORIDA  
CIVIL DIVISION**

**CHRISTINE WILLIAMS,**

**Case No.: 04-CA-008892**

**Plaintiff,**

**Division: F**

**vs.**

**CSX TRANSPORTATION, INC.,  
a corporation,**

**Defendant.**

\_\_\_\_\_ /

**ORDER ON FRYE HEARING ON MMPI-2 "FAKE BAD SCALE"**

THIS ACTION came on before the Court on August 24, 2007, for a "Frye" hearing on the use and acceptance of the "Fake-Bad Scale" (FBS) as a scientific means of assessing effort and malingering. The Plaintiff was represented by James R. Holland II, and Dorothy Clay Sims. The Defendant was represented by Daniel J. Fleming. The Plaintiff presented the Court with two large notebooks with her supporting materials and the Defendant presented the Court with its supporting materials. The Plaintiff called as her expert witness, James N. Butcher, Ph.D., Professor Emeritus, University of Minnesota Department of Psychology. The Defendant called as its expert witness, Yossef Ben-Porath, Ph.D., Professor Kent State University Department of Psychology. Both experts are preeminent in their field and they each have opinions which are diametrically opposed regarding the general acceptance and reliability of the MMPI-2 "Fake Bad Scale". The Court having considered the testimony and other evidence presented, the argument of counsel, and the subsequent submissions from each party, and being otherwise advised in the premises, makes the following findings reaches the following conclusions and therefore Orders and Adjudges:

## **THE ISSUE**

1. Is the "Fake Bad Scale" generally accepted in the psychology/neuropsychological community as a reliable assessment of effort and malingering and does it pass the Frye test for admissibility?

## **THE FRYE TEST REQUIREMENTS**

2. In utilizing the Frye test, the burden is on the proponent of the evidence to prove the general acceptance of both the underlying scientific principle and the testing procedures used to apply that principle to the facts of the case at hand. The trial judge has the sole responsibility to determine this question. The general acceptance under the Frye test must be established by a preponderance of the evidence. Just as important as the burden of proof is the fact that the hearing must be conducted in a fair manner. A hearing on the admissibility of novel scientific evidence is an adversarial proceeding in which conflicting evidence is presented to the trial judge as the trier of fact. Ramirez v. State, 651 So. 2d 1164, (Fla 1995).

3. The principal inquiry under the *Frye* test is whether the scientific theory or discovery from which an expert derives an opinion is reliable. The appellate courts have not hesitated to utilize the *Frye* test to reject expert testimony concerning subjects that have not been proven to be sufficiently reliable. See, e.g., Ramos v. State, 496 So. 2d 121, 123 (Fla. 1986)(testimony of dog-handler and police officer insufficient, by itself, to establish reliability of dog scent-discrimination lineups); Bundy v. State, 471 So. 2d 9, 18 (Fla. 1985)(hypnotically refreshed testimony per se inadmissible), *cert. denied*, 479 U.S. 894, 107 S. Ct. 295, 93 L. Ed. 2d 269 (1986), *modified* Morgan v. State, 537 So. 2d 973 (Fla. 1989)(defendant's refreshed testimony may be admissible); Walsh v. State, 418 So. 2d 1000, 1002 (Fla. 1982)("Polygraph evidence is

inadmissible in an adversary proceeding in this state."); Zeigler v. State, 402 So. 2d 365, 373 (Fla. 1981)("The results of a sodium butathol test are not admissible in a criminal prosecution."), *cert. denied*, 455 U.S. 1035, 102 S. Ct. 1739, 72 L. Ed. 2d 153 (1982).

4. In *Ramirez*, *Id* 1166-1167, the Supreme Court stated: "The admission into evidence of expert opinion testimony concerning a new or novel scientific principle is a four-step process. *See generally* Charles W. Ehrhardt, *Florida Evidence* § 702.1 (1992 Edition); Michael H. Graham, *Handbook of Florida Evidence* § 90.702 (1987 Edition). First, the trial judge must determine whether such expert testimony will assist the jury in understanding the evidence or in determining a fact in issue. § 90.702, Fla. Stat. (1993)(adopted by the Florida Supreme Court in *In re Florida Evidence Code*, 372 So. 2d 1369 (Fla. 1979)). Second, the trial judge must decide whether the expert's testimony is based on a scientific principle or discovery that is "sufficiently established to have gained general acceptance in the particular field in which it belongs." *Frye v. United States*, 54 App. D.C. 46, 293 F. 1013, 1014 (D.C. Cir. 1923). This standard, commonly referred to as the "Frye test," was expressly adopted by this Court in *Bundy v State*, 471 So. 2d 9, 18 (Fla. 1985), *cert. denied*, 479 U.S. 894, 107 S. Ct. 295, 93 L. Ed. 2d 269 (1986), and *Stokes v. State*, 548 So. 2d 188, 195 (Fla. 1989). The third step in the process is for the trial judge to determine whether a particular witness is qualified as an expert to present opinion testimony on the subject in issue. § 90.702, Fla. Stat. (1993). All three of these initial steps are decisions to be made by the trial judge alone. *See Johnson v. State*, 393 So. 2d 1069, 1072 (Fla. 1980), *cert. denied*, 454 U.S. 882, 102 S. Ct. 364, 70 L. Ed. 2d 191 (1981); *Rose v. State*, 506 So. 2d 467 (Fla. 1st DCA), *review denied*, 513 So. 2d 1063 (Fla. 1987). Fourth, the judge may then allow the expert to render an opinion on the subject of his or her expertise, and it is then up to the jury to determine the credibility of the expert's opinion, which it may either accept or reject. *Wuornos*

*v. State*, 19 Fla. L. Weekly S455, S459 (Fla. Sept. 22, 1994)("The finder of fact is not necessarily required to accept [expert] testimony."); *Walls v. State*, 641 So. 2d 381, 390 (Fla. 1994) ("Expert opinion testimony [is] not necessarily binding even if uncontroverted.").

The second step, concerning whether to allow expert opinion testimony on a new or novel subject, is especially important to the process. As Professor Ehrhardt has explained:

When a novel type of opinion is offered, the proffering party must demonstrate the requirements of scientific acceptance and reliability. The most widely adopted test has been that of *Frye v.*

*United States* which involved the admissibility of an early polygraph. The court held the evidence inadmissible because the underlying scientific principle was not "sufficiently established to have gained general acceptance in the particular field in which it belongs."

Ehrhardt, *supra*, § 702.2 (footnotes omitted).

### **THE BACKGROUND**

5. Plaintiff, Christine Williams, underwent a compulsory forensic neuropsychological examination with neuropsychologist Harold H. Smith, Ph.D. on February 22, 2006 and April 5, 2006, which was videotaped pursuant to court order.

6. As part of the examination, Dr. Smith administered the Minnesota Multiphasic Inventory 2 (MMPI-2) to Plaintiff.

7. The MMPI-2 is the most widely used test of its kind for the measurement of psychopathology or personality.

8. The MMPI-2 includes ten (10) clinical scales that assess psychological functioning and numerous validity scales (such as F, L, Fb, K, F-K , Fp and FBS) that assess whether the test-taker is providing full effort in self-reporting her symptoms.

9. Plaintiff challenges the use of only one validity scale, the “Lees-Haley Fake-Bad Scale” (FBS), contending that it is not scientifically accepted. The Plaintiff believes, based on the deposition of Harold H. Smith, Ph.D., that he intends to opine at trial that the Plaintiff does not have Post Traumatic Stress Disorder (“PTSD”) or Traumatic Brain Injury (“TBI”) and that the Plaintiff is malingering, exaggerating, or over-reporting her symptoms. Dr. Smith apparently will testify that the “Fake-Bad Scale” indicates that the Plaintiff is malingering or over-reporting her symptoms thus directly or indirectly commenting on the credibility of the Plaintiff and using the “Fake-Bad Scale” to bolster his opinion, according to Plaintiff’s argument

### **THE FRYE ANALYSIS**

10. Will the expert testimony of Harold H. Smith, Ph.D., which is based on the “Fake-Bad Scale”, assist the jury in understanding the evidence or in determining a fact in issue, i.e. whether the Plaintiff has Post Traumatic Stress Disorder (“PTSD”) or Traumatic Brain Injury (“TBI”) and whether the Plaintiff is malingering, exaggerating, or over-reporting her symptoms based upon Dr. Smith’s use of and analysis of the Plaintiff’s score on the “Fake-Bad Scale.”

### **Plaintiff’s Argument**

A. Plaintiff argues that the “Fake Bad Scale”, as the name implies, seeks to judge the credibility of a witness which is the exclusive province of the jury and cites in support of her argument: *Davis v. State*, 527 So. 2d 962, 963 (5<sup>th</sup> D.C.A. 1988). Opinion testimony from experts which directly serves to bolster or detract from the credibility of a witness invades the province of a jury and should be excluded. *Tingle v. State*, 536 So. 2d 202 (Fla. 1988); *Davis v. State*, 527 So. 2d 962, 963 (5<sup>th</sup> D.C.A. 1988); (error to admit opinion testimony of clinical psychologist); *Fuller v. State*, 540 So. 2d 182, 183-184 (5<sup>th</sup> D.C.A. 1988); (error to admit opinion

testimony of medical director); Luszczzyk v. Department of Human Services, 576 So. 2d 431 (5<sup>th</sup> D.C.A. 1991); (error to admit psychologist and case worker testimony).

No witness is allowed to testify to another witness' "exaggeration or truthfulness." See e.g., Feller v. State, 637 So. 2d 911 (Fla. 1994) (reversible error for expert to state her belief that the victim was telling the truth); Shannon v. State, 753 So. 2d 148, 149-150 (Fla. 3d DCA 2000) (same); Schwartz v. State, 695 So. 2d 452, 455 (Fla. 4th DCA 1997) (same); Hitchcock v. State, 636 So. 2d 572, 575 (Fla. 4th DCA 1994) (same); Williams v. State, 619 So. 2d 1044, 1046 (Fla. 1st DCA 1993) (same); and Sec. 90.702, Florida Statutes (2002); See, e.g., Roules v. State, 613 So. 2d 1335, 1336 (Fla. 2d DCA 1993) (testimony impermissibility addresses and questions credibility of victim) (sexual abuse victim); Page v. Zordan, 564 So. 2d 500, 502 (Fla. 2d DCA 1990) (clinical psychologist barred from testifying that test showing "sexual abuse legitimacy scale" valid in evaluating report of sexually molested child). Florida Courts use the Frye test to determine the admissibility of novel scientific procedures including certain psychological or psychiatric opinion testimony. Stokes v. State, 548 So. 2d 188.

The Plaintiff argues that: The "Fake Bad Scale" (FBS) is unreliable and does not pass the standards set forth in *Frye v. U.S.* for the reasons which are summarized as follows:

- 1) The FBS is biased against women, those with psychological problems and the truly disabled;
- 2) This FBS has been rejected at least twice by courts in Hillsborough County for failing to meet the Frye standards. (*Vandergracht v Progressive*, Case # 02-04552; *Davidson v. Strawberry Petroleum*, Case #, 05-4320 *infra.*);
- 3) The FBS is unreliable and therefore unscientific because there is no uniform agreement as to the appropriate cut-off score to be used;
- 4) The FBS has not been proven to be reliable or scientific because it has not been subjected to independent review by the "Buros Mental Measurement Test Evaluation System" ;

- 5) The FBS is unreliable because it scores points towards malingering or exaggerating when a patient acknowledges true symptoms of physical injury or psychological distress;
- 6) The FBS is unreliable because unlike every other scale in the MMPI-2, there is no scoring or administration manual for the FBS;
- 7) The FBS is highly controversial with no general acceptance reached among the authors of the MMPI-2, the American Psychological Association, or the practicing neuropsychologists who utilize validity tests.

In support of this position the Plaintiff also argues that: The "Fake Bad Scale" as applied in the present case is unreliable because it is biased and over predicts malingering in women, those with true psychiatric problems and those with complex or disabling medical issues.

Plaintiff believes, based upon her review of defense expert Harold Smith's deposition testimony, that he intends to use Ms. Williams' score of twenty-six (26) on the "Fake Bad Scale" to conclude to a jury that she is a malingerer and exaggerates her symptoms. (Smith Deposition, p. 26, ll. 23-25 p. 64, ll. 13-16 p. 76, l. 25 to . 77, l. 3).

The "Fake Bad Scale" should not be used on women since it finds women to be dishonest (malingering) at a rate of 10 times that of criminals in correction facilities. (See Page 180, Dr. Butcher article, Dr. Butcher testimony, p.112: ll. 7-12) Concern was also expressed by Dr. Arnie Abels, Ph.D., Chair of the Committee on Disability Issues in Psychology wherein, less than 3 months ago he sent a letter to defense witness, Dr. Ben-Porath, (Bates #323 of plaintiff's submission), stating, among other things:

- 1) "Given these, and other problems noted by Dr. Butcher, it seems that use of the FBS **has significant potential to negatively impact persons with disabilities.**"(emphasis supplied)
- 2) "We strongly believe that the FBS has been prematurely disseminated into practice while still lacking evidence of adequate psychometric properties and interpretive guidelines."
- 3) "The potential of the FBS to over-predict malingering in persons with disabilities may result in their being denied necessary and due compensation benefits or treatment."
- 4) "In addition, the current lack of quality and consistency of available FBS related validity research may result in obvious legal and ethical dilemma."
- 5) "There is significant evidence that literature aiming to provide interpretive guidelines for the FBS may take an overly positive view regarding its use. We are disappointed that the

University of Minnesota Press chose to introduce the FBS scale against the recommendation of the MMPI2 scholars such as Dr. Butcher.”

Plaintiff also argues that, while the testimony of Dr. Ben-Porath claims an independent study was undertaken as recommended by the APA committee, this claim was not credible. The “study” described by Dr. Ben-Porath consisted of individuals which the test publisher hand-picked, not independent scientists, when the two authors and creators of the MMPI-2 (i.e., Drs. Butcher and Graham) recommended against including the FBS on the MMPI-2. In fact, the APA committee’s recommendation was that this very “study” decision to include the FBS on the MMPI-2 was what should be examined by the independent organization (“Buros Mental Measurement Test Evaluation System” administered by the University of Nebraska).

#### **Defendant’s Argument**

B. On the other hand Defendant argues that:

1) The publisher of the MMPI-2, University of Minnesota Press, has presented guidelines for practitioners using the FBS that are reflected in its announcement of the inclusion of the FBS in the standard scoring materials.

2) The University of Minnesota Press included the FBS within the battery of the validity scales after instituting a review to determine both its scientific reliability and general acceptance. As part of the review the publisher considered the recommendations of a panel of experts and its own consultants, which were as follows:

a. Six out of eight experts consulted by the test publisher recommended that the FBS should be added to the standard scoring materials for the MMPI-2.

b. The publisher's two test consultants, including Dr. Yossef Ben-Porath, who testified in this matter, concluded that the FBS should be added to the MMPI-2 scoring materials.

3). Defendant also argues that the evidence presented demonstrates that the FBS is widely accepted in the field of clinical neuropsychology because:

a. In 2007 a survey was published in the Archives of Clinical Psychology that found that 75.1% of the respondents used the FBS at least some of the time. See M.J. Sharland and J.D. Gfeller, A Survey of Neuropsychologists' Beliefs and Practices With Respect to Effort, Archives of Clinical Psychology, 22: 213-223 (2007).

b. The survey results demonstrate that the FBS is the third most widely used assessment of effort behind only the Test of Memory Malinger (TOMM) (75.3%) and the F-K scale (76.5%).

c. The results of the Sharland and Gfeller survey lead the authors to state:

*The results of this current study indicate that frequently used measures like the TOMM, MMPI-2 F-K ratio, MMPI-2 FBS, and Rey 15-item test would all meet Frye standards for admissibility* as approximately three quarters of the sample surveyed stated that they used these measures to detect suboptimal effort. As respondents would not use a measure that they considered lacking in clinical utility, one can assume that the majority of neuropsychologists surveyed have some degree of confidence in these measures to detect symptom exaggeration or suboptimal effort. See id. at 221. (emphasis added)

d. The publisher of the MMPI-2 added the FBS to the standard scoring materials based on its conclusion that FBS is a scientifically valid procedure.

e. The scientific validity was corroborated through its process of consulting with the eight experts who were encouraged to review any and all available literature on the FBS.

## THE COURT'S CONCLUSIONS AND ORDER

11. The “Fake Bad Scale” as a measure for assessing lack of effort or malingering and/or over reporting of symptoms is a subject of controversy and continuing discussion in the psychology community. The “Fake Bad Scale” was developed by Dr. Lees-Haley in 1991, yet it is only within the last year that the University of Minnesota has decided to include it as one of its scales. Unlike every other scale in the MMPI-2, there is no scoring or administration manual for the FBS, although they have apparently published interpretive recommendations for use in assessing FBS scores. According to the Defendant, the recommendations include the following:

- **Joint use.** Use the FBS and MMPI-2 F-family jointly. They work in complementary fashion to detect multiple forms of misrepresentation. The F scale detects feigned severe psychopathology and the FBS inflated emotional and somatic suffering. The MMPI-2 F-family is more useful in criminal settings and the FBS in civil settings.
- **General FBS threshold.** An FBS score >23 justifies concerns about symptom validity. The risk of false positives declines as scores increase in the 20s. Final conclusions depend on score magnitude and moderator variables. (emphasis added by the court).
- **Gender and history as moderators.** Consider cutting scores of 29 and above in females with pre-injury psychiatric histories. (emphasis added by the court). Keep in mind persons with mental illness can still exaggerate disability in the service of regressive ends.
- **Injury severity as moderator.** In cases with historical or radiological evidence negative for cerebral dysfunction, relatively lower FBS scores (23— 24) are grounds for suspecting exaggeration. With severe brain injury with residual neurological signs (such as anosmia), adjust cut-score to 26 and up. (emphasis added by the court).
- **Medical history as a moderator variable.** In cases of serious, active medical disease, especially diseases with complex and multiple symptom complaints, interpret FBS scores with caution or rely on scores of 30+. Consult with a medical colleague if unsure of disease status. (emphasis added by the court).
- **General prohibitions.** Never use the FBS alone; combine FBS score with behavior observations and other validity test indicators; avoid the original 1991 cut-score of 20 because of false positives; as of this writing, too little is known about FBS in criminal settings for use in insanity pleas (the F scale remains particularly useful in criminal settings); a positive FBS score does not automatically rule out the coexistence of genuine problems, but it does indicate magnification of problems in such cases. (emphasis added by the court).
- Scores of 30 and above have a 99—100% probability (Bayes “posterior

probability”) of indicating promotion of suffering across all settings. FBS scores in this range provide the greatest confidence irrespective of gender, medical, or psychiatric context.

- **Ideal for neuropsychologists.** The FBS is highly recommended for use in forensic neuropsychology contexts, where somatic dysfunction and emotional complaints are evaluated in conjunction with neurocognitive issues.
- **Can be prorated from the MMPI-2 short form.** Fox (2004) demonstrated that a reasonable estimate of the full FBS can be made when only the first 370 items are administered.

12. The fact that, unlike every other scale in the MMPI-2, there is no scoring or administration manual for the FBS, and the above recommendations and cautions published by the University of Minnesota Press for its use, indicate to the Court that FBS is not an objective measurement of effort, malingering, or over-reporting of symptoms. The Court concludes that the FBS is very subjective and dependant on the interpretation of the person using or interpreting it. There is no definitive scoring because the scoring has to be adjusted up and down based on the circumstances and there is a high degree of probability for false positives. Moreover, the scoring assessment has changed over the years from an original cut score of 20 in 1991, with recommended interpretive scores now ranging form 23 to 30; this coupled with the acknowledged bias against women and those with demonstrated serious injuries makes the FBS unreliable.

13. The preponderance of the evidence does not support Defendant’s contention that the FBS is now generally accepted in the psychology community. Moreover, to allow an expert to bolster his or her testimony by reference to an FBS score, as if it were an objective test or evaluation demonstrating malingering, over-reporting, or lack of effort, would be contrary to Florida law. The Court does not believe that a test or scale that cannot reliably determine the existence of malingering or accurately measure the magnitude can be of much probative value and to allow an expert to use the FBS to support his opinion would be prejudicial under the

circumstances. Whatever probative value the FBS may have is substantially outweighed by the danger of unfair prejudice, confusion of issues, and misleading the jury, and should be excluded. See §90.403 *Fla. Stats.* The very name "Fake Bad Scale" is pejorative and derogatory and thus prejudicial. The Court concludes based on the evidence and argument presented that reference to or reliance by the expert on the "Fake Bad Scale" will not assist the jury in understanding the evidence or in determining the facts in issue. The Court having reached that conclusion under the first prong of the Frye Test determines that it is unnecessary to consider the other three prongs of the test.

It is therefore, ORDERED AND ADJUDGED that Plaintiff's Motion to Strike or Limit the Testimony of Defense Expert Harold Smith is GRANTED in that he will be prohibited from using the "Fake Bad Scale" as an objective measure of effort, malingering or over-reporting of symptoms or to bolster his opinion that the Plaintiff is not credible or not truthful or malingering.

**DONE AND ORDERED** in Chambers at George Edgecomb Courthouse, Tampa,  
Florida, this \_\_\_\_ day of \_\_\_\_\_, 2007.

ORIGINAL SIGNED  
CONFORMED COPY

SEP 19 2007

CHARLES ED BERGMANN  
CIRCUIT JUDGE

\_\_\_\_\_  
CHARLES ED BERGMANN  
Circuit Court Judge

cc: James R. Holland II, Esquire  
Dorothy Sims, Esquire  
Daniel J. Fleming, Esquire/Stephen N. Gordon Jr., Esquire



Pergamon

Archives of Clinical Neuropsychology  
18 (2003) 473–485

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Archives  
of  
CLINICAL  
NEUROPSYCHOLOGY

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# The construct validity of the Lees-Haley Fake Bad Scale Does this scale measure somatic malingering and feigned emotional distress?<sup>☆</sup>

James N. Butcher<sup>a,\*</sup>, Paul A. Arbisi<sup>b</sup>, Mera M. Atlis<sup>a</sup>, John L. McNulty<sup>c</sup>

<sup>a</sup>*Department of Psychology, University of Minnesota, 75 East River Road, Minneapolis, MN 55455, USA*

<sup>b</sup>*Minneapolis VA Medical Center, Minneapolis, MN, USA*

<sup>c</sup>*University of Tulsa, Tulsa, OK, USA*

Accepted 25 January 2002

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## Abstract

The Fake Bad Scale (FBS [Psychol. Rep. 68 (1991) 203]) was created from MMPI-2 items to assess faking of physical complaints among personal injury claimants. Little psychometric information is available on the measure. This study was conducted to investigate the psychometric characteristics of the FBS using MMPI-2 profiles from six settings: Psychiatric Inpatient ( $N = 6731$ ); Correctional Facility ( $N = 2897$ ); Chronic Pain Program ( $N = 4408$ ); General Medical ( $N = 5080$ ); Veteran's Administration Hospital Inpatient ( $N = 901$ ); and Personal Injury Litigation ( $N = 157$ ). Most correlations of the FBS and raw scores on the MMPI-2 were positive with correlations among the validity scales being lower than correlations among the clinical and content scales. The FBS was most strongly correlated with raw scores on Hs, D, Hy, HEA, and DEP. When the more conservative cutoff of 26 was used, the FBS classified 2.4–30.6% of individuals as malingerers. The highest malingering classification was for the women's personal injury sample (37.9%) while the lowest was among male prison inmates (2.3%). Compared to men, in most samples, almost twice as many women were classified as malingerers. The results indicate that the FBS is more likely to measure general maladjustment and somatic complaints rather than malingering. The rate of false positives produced by the scale is unacceptably high, especially in psychiatric settings. The scale is likely to classify an unacceptably large number of individuals who are experiencing genuine psychological distress as malingerers. It is recommended that

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\* Corresponding author. Tel.: +1-612-625-9880; fax: +1-612-626-0080.

E-mail address: butch001@tc.umn.edu (J.N. Butcher).

the FBS not be used in clinical settings nor should it be used during disability evaluations to determine malingering.

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## 1. Introduction

Over the past several years, some forensic psychologists, particularly those involved in personal injury cases, have been using the Fake Bad Scale (FBS; [Lees-Haley, English, & Glenn, 1991](#)), developed specifically for the purpose of assessing “faking” of physical complaints in forensic cases. Since the scale first appeared in the literature, only a handful of studies investigated its psychometric properties. Results from these studies were limited by methodological problems including small sample size, unrepresentative samples drawn from the authors forensic practice, and the lack of cross-validation with more general psychiatric and normative groups ([Fox, Gerson, & Lees-Haley, 1995](#); [Lees-Haley, 1992, 1997](#)). [Millis, Putnam, and Adams \(1995\)](#) provided qualified support for using the FBS among clients with head injury; however, they suggested caution in interpreting the results. [Slick, Hopp, Strauss, and Spellacy \(1996\)](#) using samples of college students reported that the FBS was correlated with other measures of malingering. [Larabee \(1998\)](#) reported that 11 out of 12 medically and neurologically normal litigants, who claimed brain damage, had high elevations on FBS, Hs, and Hy. Recently, [Tsushima and Tsushima \(2001\)](#) found that individuals referred to a private psychiatric hospital for health conditions that were suspected to be influenced by psychological factors and who were involved in litigation had higher F(b) scores than a group who was not involved in litigation and a group of individuals being screened for employment purposes. Given the limited psychometric information available for the FBS validity, it is quite difficult for psychologists to appraise the scale’s utility.

The FBS was developed by identifying items rationally on a content basis utilizing unpublished frequency counts of malingerers’ MMPI responses and the authors’ subjective observations of personal injury ([Lees-Haley et al., 1991](#)). Items comprising heterogeneous content areas were intentionally selected because it was thought that malingers typically presented with a mixture of fake good and fake bad self-reports. As shown in [Table 1](#), the final item pool contains 43 items that include somatic symptoms, unusual beliefs, and deviant attitudes. Scores for the FBS were then compared between a group of 20 personal injury claimants who appeared “notably credible,” a group of 25 personal injury claimants who appeared clearly to be malingering, 16 medical outpatients asked to simulate emotional distress caused by a motor vehicle accident, 15 medical outpatients asked to simulate emotional distress caused by a toxic exposure, and 36 medical outpatients asked to simulate emotional distress caused by stress on the job ([Lees-Haley et al., 1991](#)). The basis for assigning individuals to the notably credible group and the malingered group was not explained. The authors also calculated the “mean scores” on the FBS for the 540 psychiatric inpatients reported in the MMPI-2 manual by weighting each item on the FBS with the probability that the item would be answered in the scored direction based on the MMPI-2 norms. Despite the fact that the mean calculated

Table 1  
Classification of item content the FBS into homogeneous groups

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*Somatic symptoms*

True

- 11 There seems to be a lump in my throat much of the time
- 18 I am troubled by attacks of nausea and vomiting
- 28 I am bothered by an upset stomach several times a week
- 40 Much of the time my head seems to hurt all over
- 44 Once a week or oftener I suddenly feel hot all over, for no real reason
- 59 I am troubled by discomfort in the pit of my stomach every few days or oftener
- 111 I have a great deal of stomach trouble

False

- 57 I hardly ever feel pain in the back of my neck
- 117 I have never vomited blood or coughed up blood
- 164 I seldom or never have dizzy spells
- 176 I have very few headaches
- 224 I have few or no pains
- 249 My eyesight is as good as it has been for years
- 255 I do not often notice my ears ringing or buzzing

*Sleep disturbance*

True

- 30 I have nightmares every few nights
- 39 My sleep is fitful and disturbed

*Tension or stress*

True

- 31 I find it hard to keep my mind on a task or job
- 469 I sometimes feel that I am about to go to pieces
- 325 I have more trouble concentrating than others seem to have

False

- 496 I am not feeling much pressure or stress these days

*Low energy/anhedonia*

True

- 252 Everything tastes the same
- 464 I feel tired a good deal of the time
- 339 I have sometimes felt that difficulties were piling up so high that I could not overcome them
- 505 I am so sick of what I have to do every day that I just want to get out of it all
- 506 I have recently considered killing myself

False

- 12 My sex life is satisfactory
- 152 I do not tire quickly
- 561 I usually have enough energy to do my work

*Denial of deviant attitudes or behaviors*

True

- 274 I am so touchy on some subjects that I can't talk about them

False

- 41 I do not always tell the truth
- 58 I think a great many people exaggerate their misfortunes in order to gain the sympathy and help of others
- 81 I think most people would lie to get ahead

Table 1 (Continued)

110	Most people will use somewhat unfair means to gain profit or an advantage rather than to lose it
227	I don't blame people for trying to grab everything they can get in this world
248	I do not blame a person for taking advantage of people who leave themselves open to it
250	At times I have been so entertained by the cleverness of some criminals that I have hoped they would get away with it
264	I have used alcohol excessively
284	I think nearly anyone would tell a lie to keep out of trouble
362	I can remember "playing sick" to get out of something
373	I have done some bad things in the past that I never tell anybody about
374	Most people will use somewhat unfair means to get ahead in life
419	There are certain people whom I dislike so much that I am inwardly pleased when they are catching it for something they have done
433	When I am cornered I tell that portion of the truth which is not likely to hurt me

FBS score for the psychiatric inpatients was 19.1 for women and 16.9 for men, the authors find that a cutoff score of 20 correctly classified 96% of the "diagnosed malingerers" and 79% of the medical simulators. No further analyses were conducted. The authors of the FBS did not develop "norms" for the scale, that is, they did not provide standard T-scores as are available for most MMPI-2 scales (Butcher et al., 2001). Instead, Lees-Haley (1997) reported a base rate for 492 personal injury plaintiffs drawn from what is presumed to be his private forensic practice. The mean FBS score for this group is  $20.8 \pm 6.7$  (Lees-Haley, 1997). Means were not reported separately for men and women.

Lees-Haley et al. (1991) originally recommended a cutoff of 20 as a sign of malingering physical complaints but indicated that the scale might overpredict malingering in samples of mental health patients and cautioned against such use (Lees-Haley et al., 1991). Most of the original analyses were conducted on combined samples of men and women. However, Lees-Haley (1992) suggested that there might be gender differences operating on the scale and recommended using a cutoff score of 24 for women before malingering is considered.

Lees-Haley et al. (1991) also suggested that the FBS had utility in detection of faked Post Traumatic Stress Disorder (PTSD), based on a study comparing a group of 55 "pseudo-PTSD" patients who claimed to be suffering a disabling psychological injury as a result of an implausible experience, with a control group. All of the "pseudo-PTSD" patients had PTSD scale scores (PK) and (PS) greater than  $T = 65$ . The control group included 64 consecutively referred personal injury claimants who reported psychological injury and who scored less than  $T = 60$  on PK and PS. The authors found that a score greater than 24 in men and a score greater than 26 in women was effective in identifying spurious PTSD (Lees-Haley, 1992).

The present study undertakes a review of the FBS and an empirical evaluation of the scale's psychometric functioning in populations of personal injury litigants, chronic pain patients, general medical and psychiatric inpatients, Veteran's Administration patients, and correctional cases. The three main goals of this study were: (1) to evaluate the internal structure of the FBS to get a better idea of the nature of a theoretical construct or constructs that underlie its structure; (2) to investigate the empirical relationships of the FBS to other MMPI-2 measures in order to obtain a clearer idea of what the scale measures; and (3) to evaluate the proportion of individuals classified as somatic malingerers by the FBS.

## 2. Method

### 2.1. Research samples

In order to determine how the FBS performed psychometrically, several research samples were obtained that possessed different characteristics depending upon the population from which they were drawn. It was desirable to obtain a number of diverse samples to examine the FBS in a broad range of cases.

Four of the six samples used in this study were obtained from the National Computer Systems (NCS) MMPI-2 archival files. The original database consisted of the MMPI-2 profiles scored by NCS between 1990 and 1996. A total of 119,672 cases were available for this study. Initially, cases which were outside the range of traditional validity indices were excluded from the data set based on the following validity criteria: A Cannot Say score was equal or greater than 30; F or F(b) was equal or greater than T 110; VRIN or TRIN were equal or greater than T 100; and L or K were equal or greater than T 80. A total of 8.61% or 10,881 cases were removed. This left a refined sample of 108,791 cases from a variety of health, mental health, correctional, and personnel selection settings available to draw samples for the present study. The analyses conducted in this study were based on the following samples drawn from this larger pool: Psychiatric Inpatient ( $N = 6731$ ); Correctional Facility ( $N = 2897$ ); General Medical ( $N = 5080$ ); and Chronic Pain Program ( $N = 4408$ ).

The *Veteran's Administration Hospital Patients* sample consisted of psychiatric inpatients from a large, tertiary care, VA Medical Center. All of the VA patients who were administered an MMPI-2 as part of an inpatient psychiatric admission were considered for inclusion in the study. Using the same validity criteria as in the NCS data cleaning procedures, from the initial pool of 1394 potential participants, 436 (36%) were considered invalid. There were 901 veterans included in the subsequent analyses.

The sample of *Personal Injury Litigants* consisted of 157 individuals who were being evaluated in the context of an ongoing forensic evaluation. The sample was compiled for an empirical study of personal injury litigants by Butcher (1997). Nine forensic practitioners from a variety of settings were asked to provide MMPI-2 profiles obtained from their clients as part of forensic (personal injury) evaluation.

## 3. Results

Several analyses were conducted in order to appraise the psychometric performance of the FBS in a diverse range of clinical and correctional cases. In the analyses that follow, we will first examine the internal consistency estimates conducted using each sample to determine whether the FBS is represented by a single, homogeneous dimension, as indicated by coefficient alpha (Cronbach, 1951)—a characteristic that is thought to be important for personality scales that purport to measure unitary dimensions. Next, we will examine the interrelationships between the FBS and other MMPI-2 measures in order to evaluate the extent to which this scale addresses characteristics measured by other MMPI-2 scales, particularly whether the FBS is related to other “malinger” measures and whether it is highly associated with some forms of MMPI-2

Table 2  
Alpha coefficients for 43 MMPI-2 items comprising the FBS in six samples of men and women

	NCS				VA Hospital Inpatients	Personal Injury Cases
	Psychiatric Inpatients	Correctional Facility	Chronic Pain Program	General Medical		
Men	.64	.54	.49	.65	n/a	.86
Women	.58	.74	.43	.51	n/a	.85
Both genders combined	.64	.59	.47	.58	.75	.85

measured psychopathology. Finally, we will evaluate the classification rates of FBS across six research samples to determine if there are setting-specific factors found to be associated with the predictive performance of FBS scores.

3.1. FBS: internal consistency

Internal consistency estimates were obtained from each of the samples included in the study. This analysis was conducted because the FBS was originally developed by a rational scale construction method. Therefore, evaluating scale homogeneity is an important consideration in determining whether the scale is unidimensional or multidimensional in the item make-up. The alpha coefficients of the FBS and the MMPI-2 validity, clinical, and content scales ranged from .47 to .85 (see Table 2). Overall, although the scale contains a heavy representation of somatic items, the alpha coefficients suggest that the FBS does not measure a single dimension but is more complex being comprised of several item subgroups. The coefficients tend to be slightly lower for women than for men.

It is worth noting that in the comparisons described above, the personal injury sample has the highest alpha values. However, this does not mean that “somatic malingering” is assessed by the FBS. An alpha of .8 may simply mean that people in this population consistently report somatic symptoms, which in itself does not mean they are malingering.

3.2. FBS: relationship to MMPI-2 scales

The FBS does not appear to be assessing characteristics found in the standard MMPI-2 validity scales as well as it does the clinical syndromes addressed by the MMPI-2 clinical scales. The item overlap between the FBS and the standard “fake bad” MMPI-2 scales, F, F(b), and F(p) scales, is minimal, only about one to four items (see Table 3). Also, the intercorrelations of the FBS with the MMPI-2 validity scales are small to nonexistent (see Table 4). This suggests that the items contained on the FBS are generally not those that are rare or infrequently endorsed by the general population or the mental health samples. Therefore, responses on the FBS cannot be viewed as reflecting the same test-taking strategy that underlies the infrequency-type scale developed by Hathaway and McKinley (1943).

The items on the FBS appear to measure mostly somatic symptoms that are associated with measures of psychologically based symptom disorders. For example, some items (e.g., Items

Table 3

Item overlap between the FBS and the MMPI-2 validity, clinical, and content scales

Scale	Number	Item numbers statements that appear on MMPI-2 scales
L	1	41
F	4	12, 18, 30, 252
F(b)	1	506
F(p)	1	252
K	2	110, 284
Hs	13	18, 28, 39, 59, 111, 176, 57, 117, 152, 164, 224, 249, 255
D	4	18, 31, 39, 248
Hy	14	11, 18, 31, 39, 40, 44, 110, 58, 81, 152, 164, 176, 224, 249
Pd	2	12, 31
Pa	4	81, 110, 255, 284
Pt	3	11, 31, 325
Sc	7	12, 31, 44, 252, 255, 274, 325
Ma	0	
Si	3	31, 255, 362
ANX	0	
FRS	0	
OBS	0	
DEP	1	506
HEA	14	11, 18, 28, 40, 44, 59, 111, 57, 117, 164, 176, 224, 249, 255
BIZ	0	
ANG	0	
CYN	0	
ASP	0	
TPA	0	
LSE	0	
SOD	0	
FAM	0	
WRK	2	464, 561
TRT	1	274
PK	6	30, 31, 39, 59, 274, 339

18, 28, 44, 59, 11, 117, 164, 176, 224, 249, 469, 325, 31, 496, 464, 506) are usually viewed as indicators of somatic problems and not necessarily somatic malingering. As shown in Table 3, the FBS has a considerable item overlap (almost 1/3 of the items) with the three scales that measure health concerns or physical symptoms—two clinical scales (Hs and Hy) and one content scale (HEA). The FBS has minimal item overlap with other MMPI-2 clinical and content scales that assess mental health problems. For example, there are only seven items in common with the Sc scale and the four items in common with the Pt scale (see Table 3). The FBS developers have not demonstrated that high-scoring persons have false claims of physical symptoms—only that they have reported a number of physical symptoms.

As shown in Table 4, Pearson Product–Moment Correlations of the FBS with MMPI-2 validity scales are relatively low, especially when compared to correlations of the FBS scores with the MMPI-2 clinical and content scales. For all samples, Pearson correlations of the FBS with raw scores on L, F, K, VRIN, TRIN, F(b), S, and F(p) were generally lower than correlations of

Table 4  
Pearson correlations between raw scores on the selected MMPI-2 scales and the Lees-Haley FBS

MMPI-2	NCS					
	Psychiatric Inpatients (N = 6731)	Correctional (N = 2897)	Chronic Pain Program (N = 4408)	General Medical (N = 5080)	VA Inpatient (N = 942)	Personal Injury (N = 157) <sup>a</sup>
L	.034**	.066**	.028	.050**	.064	.075
F	.294**	.342**	.289**	.330**	.260**	.533**
K	−.138**	−.135**	−.110**	−.174**	−.128**	−.163*
VRIN	.090**	.179**	.111**	.123**	.068*	.072
TRIN	.016	.018	.037*	.019	−.090**	−.114
F(b)	.393**	.362**	.331**	.370**	.364**	.551**
S	−.112**	−.113**	−.092**	−.153**	−.095**	−.155*
F(p)	.111**	.140**	.116**	.100**	.017	n/a
Hs	.711**	.628**	.604**	.702**	.750**	.808**
D	.636**	.550**	.529**	.612**	.657**	.837**
Hy	.684**	.606**	.594**	.669**	.748**	.848**
Pd	.246**	.292**	.274**	.292**	.248**	.501**
Pa	.437**	.491**	.418**	.430**	.410**	.691**
Pt	.537**	.428**	.438**	.498**	.548**	.678**
Sc	.483**	.413**	.423**	.475**	.485**	.648**
Ma	−.051**	−.002	.040*	.022	−.063	.123
Si	.415**	.349**	.281**	.363**	.372**	.493**
ANX	.567**	.488**	.458**	.533**	.584**	
FRS	.324**	.258**	.226**	.276**	.193**	
OBS	.365**	.280**	.279**	.327**	.306**	
DEP	.497**	.426**	.397**	.452**	.496**	
HEA	.657**	.600**	.553**	.678**	.695**	
BIZ	.151**	.282**	.158**	.192**	.088**	
ANG	.130**	.119**	.148**	.209**	.158**	
CYN	−.078**	−.011	−.059**	−.003	−.118**	
ASP	−.295**	−.156**	−.222**	−.179**	−.296**	
TPA	.041**	.049**	.084**	.084**	.002	
LSE	.412**	.348**	.303**	.351**	.360**	
SOD	.298**	.257**	.181**	.254**	.275**	
FAM	.229**	.197**	.166**	.197**	.087**	
WRK	.490**	.374**	.393**	.462**	.465**	
TRT	.383**	.304**	.288**	.408**	.366**	
PS	.552**	.455**	.449**	.524**	.568**	
PK	.492**	.430**	.414**	.475**	.528**	

<sup>a</sup> Only validity and clinical MMPI-2 scores were available for this sample.  
\* Correlation is significant at the .05 level (two-tailed).  
\*\* Correlation is significant at the .01 level (two-tailed).

those validity scales with each other (see Table 4). The FBS most strongly correlated with Hs, D, Hy, DEP, and HEA further suggesting that the FBS has a stronger association with psychologically based symptom disorders than traditional measures of malingering. Thus, a high score on the FBS can simply mean that the client is experiencing health or mental health problems.

### 3.3. FBS: classification of “somatic malingering”

The FBS appears to overpredict malingering in clinical and forensic samples. The classification rates for various clinical populations using different cutoff scores are provided in Table 5. When the more conservative cutoff of 26 was used, the FBS classified 2.4–30.6% of individuals as malingerers. The highest malingering classification was for the women in the personal injury sample (37.9%), while the lowest was among male prison inmates (2.3%). Compared to men, almost twice as many women were classified as “malingerers.” Even when the most conservative cutoff of 26 is used, in five out of six samples or 11% of individuals are classified as “malingerers.” The exception was the correctional sample where there was a cutoff of 26 predicted only 2.3% classified as “malingerers.” Such a low percentage is unusual

Table 5  
Malingering classification rates for the FBS using several cutoff criteria

Sample	Total	Men	Women
Psychiatric Inpatient, NCS	6731	2940	3791
Score of 20 and higher	3036 (45.1%)	869 (29.6%)	2167 (57.2%)
Score of 22 and higher	2246 (33.4%)	565 (19.2%)	1681 (44.3%)
Score of 24 and higher	1604 (23.8%)	356 (12.1%)	1248 (32.9%)
Score of 26 and higher	987 (14.7%)	201 (6.8%)	786 (20.7%)
Correctional Facility, NCS	2897	2145	752
Score of 20 and higher	377 (13.0%)	263 (12.3%)	114 (15.2%)
Score of 22 and higher	229 (7.9%)	152 (7.1%)	77 (10.2%)
Score of 24 and higher	149 (5.1%)	99 (4.6%)	50 (6.6%)
Score of 26 and higher	68 (2.4%)	49 (2.3%)	19 (2.5%)
Chronic Pain Program, NCS	4408	2364	2044
Score of 20 and higher	2464 (55.9%)	960 (47.0%)	1504 (63.6%)
Score of 22 and higher	1896 (43.0%)	695 (34.0%)	1201 (50.8%)
Score of 24 and higher	1352 (30.7%)	485 (23.7%)	867 (36.7%)
Score of 26 and higher	719 (16.3%)	235 (9.9%)	484 (23.7%)
General Medical, NCS	5080	2445	2635
Score of 20 and higher	2078 (40.9%)	772 (31.6%)	1306 (49.6%)
Score of 22 and higher	1537 (30.3%)	543 (22.2%)	994 (37.7%)
Score of 24 and higher	1145 (22.5%)	385 (15.7%)	760 (28.8%)
Score of 26 and higher	603 (11.9%)	207 (8.5%)	396 (15.0%)
VA Inpatient sample		901	
Score of 20 and higher		421 (46.7%)	
Score of 22 and higher		300 (33.3%)	
Score of 24 and higher		215 (23.9%)	
Personal Injury sample	157	54	103
Score of 20 and higher	88 (56.1%)	24 (44.4%)	64 (62.1%)
Score of 22 and higher	79 (50.3%)	21 (38.9%)	58 (56.3%)
Score of 24 and higher	61 (38.9%)	13 (24.1%)	48 (46.6%)
Score of 26 and higher	48 (30.6%)	9 (16.7%)	39 (37.9%)

because one would expect at least an equal percentage of malingerers in the correctional setting (i.e., individuals in a correctional settings should have just as many reasons to malingering as individuals in other samples). Further, the “assessed malingering rate” in the VA sample suggests that the scale is not accurately assessing pseudo-PTSD since the base rate of genuine PTSD in VA settings should be greater than in other settings given the high rate of traumatic experiences associated with military service.

#### **4. Discussion**

The analyses presented in this study show that the FBS is not a psychometrically sound measure of somatic malingering but is more associated with the expression of psychopathology in which physical symptoms are experienced. The FBS does not reflect malingering in the way that other scales developed for the MMPI-2 do, such as F, F(b), and F(p). The scale also does not assess “extreme” or rare symptoms but appears to reflect the presentation of a number of physical complaints. Medical conditions that are chronic and manifest a broad range of symptomatic content (such as multiple sclerosis or neuralgia) are also likely to produce extreme elevations on the FBS and thereby be considered “malingering.” Further, mental health patients who have psychologically based disorders or have a chronic medical condition are likely to have high FBS scores.

This study, as are those published earlier on the FBS, is limited by not having a clearly determined “malingered” and a clearly determined “nonmalingered” sample on which to verify the classification success. It is extremely unlikely, however, that the large number of general patients from the mental health, chronic pain, and personal injury settings used in the present study is in fact malingering as is suggested by the FBS.

Psychologists using elevations on the FBS to address the question of malingering will likely make judgment errors with respect to the veracity of the client’s complaint pattern and may misdiagnose genuine disorders with which a broad symptom pattern of medical symptoms is associated. A review of the item overlap shows that the FBS is not addressing extreme endorsement patterns as do the F, F(b), and F(p) scales of the MMPI-2. Relatively few of the Lees-Haley F(b) items are infrequently endorsed by patients from a broad range of clinical settings. Further, the FBS has relatively low or even negative correlation with MMPI-2 validity scales associated with a fake good response set. These findings raise questions regarding the construct validity of the scale since the items were rationally selected to reflect both fake good and fake bad response sets (Lees-Haley et al., 1991). The FBS is not a malingering measure, as we know malingering to be expressed through the MMPI-2 items through the endorsement of unusual items in an attempt to exaggerate symptoms. The FBS is not statistically associated with known faking measures on the MMPI-2, F, F(b), and F(p). Rather, the FBS simply reflects a broad pattern of somatic symptoms the client is endorsing that could be associated with a chronic illness pattern. Clients who score high on the FBS could be describing a pattern of symptoms consistent with chronic illness.

This scale also shows a bias toward classifying women as malingerers. The same cutoff score cannot be used for men and women. The use of the term bias in the context of MMPI-2 based prediction indicates that the predictor scale systematically under- or over-predicts criterion

in a particular group and/or the association between the predictor scale and criterion variable significantly differs between two groups (Arbisi, Ben-Porath, & McNulty, *in press*; McNulty, Graham, Ben-Porath, & Stein, 1997; Timbrook & Graham, 1994). With respect to the FBS, there are substantially more women than men designated as malingerers at a particular cutoff score for all of the clinical groups examined. This finding suggests that the FBS differentially predicts malingering in women since there is no *a priori* expectation that women are more likely than men to malingering somatic symptoms and emotional distress. Simply increasing the cutoff scores for women does not alter the differential predictive validity of the scale or the strength of association between the scale and malingering. Consequently, the issue of gender bias associated with the FBS warrants further study and, until the issue is resolved, use of the FBS with women should be avoided.

The FBS does not measure a single dimension as shown by the relatively low alpha coefficients. It is a heterogeneous measure including somatic complaints; sleep disturbance, tension/stress, low energy/anhedonia, and diverse deviant attitudes. The FBS is most strongly associated with Scales Hy, D, Hy, HEA, and D—scales which contain many physical symptoms.

A high percentage of patients from chronic pain or personal injury settings are considered to be “somatic malingerers” according to FBS. Even after excluding 31% of the veterans and using very conservative criteria based on standard validity indices, another 24% of veterans from the VA psychiatric inpatient setting are classified as malingerers using Lees-Haley’s recommended cutoff score on the FBS for detection of spurious PTSD.

Based on the findings in the VA and psychiatric inpatient samples, an unacceptably high number of individuals are designated as malingerers, despite the fact that we culled out individuals from both samples who had a high likelihood of malingering based on established MMPI-2 validity scales. It does not make interpretive sense to use a malingering scale where one has to rule out genuine psychiatric illness, emotional distress, or somatic problems before it can be used. If the scale was designed to be used in populations undergoing litigation for personal injury claims, one would expect this population to be emotionally distressed and generally distraught.

There are potentially grave consequences for using the FBS in detecting both feigned PTSD and somatic malingering. These consequences are the direct result of the high percentage of false positives that are identified by the FBS. With respect to PTSD disability evaluations, individuals who have been traumatized and presenting with genuine symptoms of PTSD run the risk of further traumatization as a result of being inappropriately labeled as malingering based on an elevation on the FBS. This possibility is particularly troubling in the light of the higher rate of FBS-identified malingering in women. Many traumatized women may have previously experienced providers as unsupportive or invalidating when seeking treatment for either emotional or physical sequelae of the trauma. The perception of mental health professionals as unbelieving and invalidating has an obvious impact on the ability of the individual to form a therapeutic alliance and engage in effective therapy. The same issues arise when the FBS is used to detect malingering in chronic pain settings or during disability evaluations. An individual with a genuine physical disability and associated pain, who is erroneously confronted with their perceived lack of honesty based on an elevation on the FBS, is likely to feel discounted and confused. If nearly one third of the patients from a general medical setting are

deemed to be malingering and told so, the subsequent interactions with health care providers are likely to be irreparably harmed and may result in a large number of disgruntled patients. A patient may be understandably reluctant to bring up complaints or concerns related to his or her health when the last time he or she did so, he or she was not believed. The failure to share concerns or symptoms with a health care provider for fear that these concerns will be discounted or not believed will result in the failure to detect disease early and to delay effective intervention.

The MMPI-2 is widely used in disability and personal injury evaluations because it is a well-validated and objective measure of psychopathology and contains validity scales that assess the test taker's approach to the instrument. The FBS does not meet the standards set by other MMPI-2 validity scales nor does it live up to the authors' claim that it can accurately detect malingering within the context of disability evaluations. Moreover, the FBS is not likely to meet legal criteria in forensic cases because of the lack of empirical validity and the low level of professional acceptance of it as a measure of malingering. Despite the understandable desire on the part of clinicians as well as defense and plaintiffs' attorneys for a means by which the wheat can be separated from the chaff with respect to personal injury claims, the FBS does not fit the bill because it greatly overestimates malingering in individuals with genuine psychiatric and psychological problems.

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AMERICAN  
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May 31, 2007

Yossef S. Ben-Porath, PhD, and Auke Tellegen, PhD  
University of Minnesota Press  
Test Division  
111 Third Avenue South  
Minneapolis, MN 55401-2520

Re: FBS MMPI-2 Validity Scale

At our recent meeting, APA's Committee on Disability Issues in Psychology (CDIP) discussed the newly introduced MMPI-2 validity scale, the fake bad scale (FBS) which was brought to our attention by several colleagues.

CDIP appreciates the need for psychologists working in forensics and other types of neuropsychological settings to be able to detect malingering. We also recognize and appreciate the need to be able to detect malingering in disability claimants. However, we strongly believe that the FBS has been prematurely disseminated into practice, while still lacking evidence of adequate psychometric properties and interpretive guidelines. The FBS has been the subject of intense debate, and at present there is insufficient empirical research on the FBS capable of serving to resolve diagnostic and assessment issues associated with its use. We are particularly concerned that the issue of false positives has not been resolved. There is significant evidence that the FBS scale disadvantages individuals with genuine medical or psychological difficulties, particularly people with disabilities.

In correspondence with University of Minnesota Press (dated 2-8-06), Dr. James Butcher strongly recommends against including the FBS as an official MMPI-2 scale. Many items appearing on the FBS are genuine symptom items also appearing on clinical and content scales. The FBS uses actual symptoms, and client's endorsement of these symptoms is not likely to provide indications of deceptive or malingering strategies. Dr. Butcher also notes significant problems with research supporting the use of the FBS, including use of unpublished studies and small sample sizes. There is also significant evidence that literature aiming to provide interpretive guidelines for the FBS may take an overly positive view regarding its use. We are disappointed that the University of Minnesota Press chose to introduce the FBS scale against the recommendation of MMPI-2 scholars such as Dr. Butcher.

750 First Street NE  
Washington, DC 20002-4242  
(202) 336-6050  
(202) 336-6123 TDD

Email: [public.int@apa.org](mailto:public.int@apa.org)  
Web: [www.apa.org/pi](http://www.apa.org/pi)



Given these, and other problems noted by Dr. Butcher, it seems that use of the FBS has significant potential to negatively impact persons with disabilities. The potential of the FBS to over predict malingering in persons with disabilities may result in their being denied necessary and due compensation, benefits or treatment. Individuals with physical, neurological, pain related or mental health disabilities may receive sub standard psychological services. This seems likely given issues regarding item endorsement that have been noted by disability scholars such as Rhoda Olkin, PhD. Dr. Olkin provides evidence that individuals with acquired disabilities are more likely to endorse somatic and obsessive compulsive test items. However, such endorsement often reflects aspects of disability, not malingering. In addition, the current lack of quality and consistency of available FBS related validity research may result in obvious legal and ethical dilemmas, particularly for psychologists in counseling rehabilitation, and medical settings.

In light of these concerns, CDIP strongly recommends that the University of Minnesota Press request an independent evaluation of the FBS to be conducted by the Buros Mental Measurement Test Evaluation System at the University of Nebraska. The Buros Center for Testing is directed by Dr. Kurt Geisinger who has expertise in disability issues. It is this type of independent empirical research that can help resolve underlying validity issues. It is our understanding that such an evaluation can only be requested by the test publisher and is performed at no cost.

CDIP appreciates the opportunity to provide input regarding such a key issue.

Sincerely,

Amie Abels, Ph.D, Chair  
Committee on Disability Issues in Psychology

CC: Marianne Ernesto  
Beverly Kaemmer, Associate Director/ Test Division Manager  
Gwendolyn Puryer Keita, PhD  
Izabela Z. Schultz, PhD