

The Assessment of Malingering in Psychodiagnostic Evaluations: *Research-Based Concepts and Methods for Consultants*

Robert G. Meyer *University of Louisville*
Sarah M. Deitsch *University of Kentucky*

This article first discusses overall perspectives related to malingering, with an emphasis on applications most relevant to the consultant-expert witness. This is followed by a brief presentation of those overall patterns characteristic of malingering. Then, in order, there are discussions of indexes of malingering developed through research on the Minnesota Multiphasic Personality Inventory-2 (MMPI-2; Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1989), the MMPI-Adolescent (MMPI-A; Archer, 1992), the fifth edition of the Sixteen Personality Factor Questionnaire (16 PF; Conn & Rieke, 1994), the Rorschach (Rorschach, 1921/1942), and other standard tests such as the Millon Clinical Multiaxial Inventory-III (MCMI-III; Meyer & Deitsch, in press). Following this are those tests specifically designed to detect malingering. The last two sections focus on physiological indicators and overt behavioral cues, ending with a commentary.

Consultants in most settings, for example, the school and workplace, especially those called upon to be expert witnesses, are often confronted with the issue of malingering (in truth an act, not primarily a mental disorder) and distorted response sets. It is often appropriate to broaden the concept of malingering to any type of response that distorts the production of an accurate record; this is the context in which the following discussion is placed.

The focus of the *Diagnostic and Statistical Manual of Mental Disorders—Fourth Edition (DSM-IV; American Psychiatric Association, 1994)* criteria for malingering is the voluntary presentation of false or grossly exaggerated physical or psychological symptoms. *DSM-IV* notes that malingering should be suspected when there is (a) a

medicolegal context, (b) discrepancy between objective findings and reported symptoms, (c) compliance problems, and (d) presence of an antisocial personality disorder. Good advice, except that the fourth point should be considerably broadened; indeed, malingering can occur with virtually every *DSM-IV* diagnosis, or when no diagnosis is warranted. Malingering is often more understandable by the evident incentives and circumstances of the situation, rather than by the person's individual psychology.

Overall Indicators

Several overall patterns have been found to be characteristic of interview and test data from malingerers (Berry, Wetter, & Baer, 1995; Ekman, 1985; Fox, Gerson, & Lees-Haley, 1995; Meyer & Deitsch, in press; Pope, Butcher, & Seelen, 1993; Rogers, 1988). These characteristic patterns depend to some degree on the specific distorted response pattern that is being observed, that is, whether it is the result of malingering, defensiveness, disinterest, or something else.

Robert G. Meyer, PhD, specializes in clinical and forensic psychology and in hypnosis and is a professor in the Department of Psychology at the University of Louisville.

Sarah M. Deitsch, MA, has carried out research on the MMPI-2 and is involved in research on the NEO-PI-R at the University of Kentucky.

Correspondence concerning this article should be addressed to Robert G. Meyer, Department of Psychology, c/o 317 Life Sciences Building, University of Louisville, Louisville, Kentucky 40292.

MMPI-2

First, any symptom reports should be rigorously questioned, at least at first using open-ended questions such as, "What are those voices telling you?" rather than "Do those voices tell you to do anything?" It is also important, to the degree possible, to obtain verifying collateral information.

In general, malingerers more often report relatively rare symptoms, as well as a higher total number of symptoms, than do honest respondents. Also, look for malingerers to present very obvious and prosaic symptoms or improbable or absurd symptoms or symptom combinations, or symptoms of unprobable severity, for example, being extremely high on 6, 8, and *F* on the Minnesota Multiphasic Personality Inventory—2 (MMPI-2; Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1989). Malingerers are also more likely to be willing to discuss their disorder, especially how the negative effects of their disorder affect rather narrow areas of functioning. They are more likely to report a sudden onset of the disorder; to report a more sudden cessation of symptoms if that has some functional value; to demonstrate more exaggerated behavior, more suicidal ideation, more visual hallucinations, more symptoms that do not cluster; and to endorse the more evident, flamboyant, and disabling symptoms. They are more likely to give vague or approximate responses when confronted, to make inconsistent symptom reports, to take a longer time to complete a test or an interview response, to repeat questions, to use qualifiers and vague responses, to miss easy items and then score accurately on harder or more complex items, and to endorse the obvious rather than the subtle symptoms usually associated with a disorder (hence, obvious-subtle item discriminations on the MMPI-2 may be helpful here). Malingerers tend to report the following less often than true psychotics: disturbed affect, incoherent speech, poor personal hygiene patterns, concrete thinking or formal thought disorder, incoherent speech, or grandiose delusions or ideas of reference.

The assessment of malingering on the MMPI-2 naturally centers on the validity scales as predictors of distorted response sets (Berry et al., 1995; Woychyshyn, McElheran, & Romney, 1992). Nevertheless, a number of other measures may also be useful here. For example, as suggested earlier, one face-valid method is to compare differences on those items originally designated by Weiner and Harmon (1946) as obvious and subtle, although some experts (Graham, 1993) do not see much value in these items. Jackson (1971) argued that the subtle items may have appeared in the original MMPI scales (Hathaway & McKinley, 1943) because of sampling errors in the initial item selection procedures. Hovanitz and Jordan-Brown (1986) found that when diagnostic or drug-outcome criteria were used, the exclusion of the subtle MMPI-2 items resulted in a statistically significant loss of predictive ability. The obvious items, however, were found to be related to many diagnostic constructs within the scales. Woychyshyn et al. (1992) found the subtle-obvious scales to be more effective in detecting faking good than faking bad.

The standard validity scales (*L*, *F*, *K*, and *Fb*) do, however, provide much valuable information in this regard, and there is support for the use of the three validity scales excerpted from the test as a whole (Cassini & Workman, 1992). Of the standard validity scales, the consensus is the *F* is the best indicator of malingering (Bagby, Buis, & Nicholson, 1995; Berry et al., 1995; Iverson, Franzen, & Hammond, 1995). Bagby et al. (1995) compared college students asked to fake bad to general psychiatric and forensic groups, and found that (a) the *F* scale provided the strongest prediction value, (b) the *F* scale provided incremental value over the Obvious-Subtle (*O-S*) index, and (c) the *O-S* index should not typically be used instead of the traditional validity scales to identify faked profiles. Iverson et al. (1995) com-

pared inmates instructed to malingering to psychiatric inpatients and inmates answering under standard instructions. The *F* scale, *F-K* index, and *Fb* offered the most valuable predictions, in that order. Using a cutting score of 17, the *F* scale correctly classified 89% of malingering inmates, 100% of standard instruction inmates, and 98% of psychiatric inpatients, thus producing a 96% overall rate.

Understand that a high *F* or *Fb* score warns the examiner of statistically deviant responses, but cannot by itself definitively identify the source of the deviance. Clarification may be found by looking at other scores, for example, the Variable Response Inconsistency (VRIN) scale. A high *F* with a high VRIN suggests random responding, but a high *F* with a low VRIN suggests malingering. Or, possibly, actual *F-K* ratio is +9 (or some other number, depending on who is responding); such people are trying to fake bad, that is, to present a distorted picture of themselves that emphasizes pathology. If the score is 0 or lower, the emphasis is on trying to look good and deny pathology. However, it is generally agreed that these axioms only hold if *F* and *K* are relatively low, and even then, there are a high number of false-positives and false-negatives. For example, psychotic and other severely distressed individuals—that is, those with a high level of anxiety—are likely to score in a T range of 65–80 on the *F* scale and so at first may appear to be malingering. It is also noteworthy that when there is evidence of a defensive profile—that is, a high *K*—elevations in the T range above 65 are usually of high clinical significance. Rothke et al. (1994) and Fox et al. (1995) offered varying suggested *F-K* cutoff scores for several different client populations.

Graham, Watts, and Timbrook (1991) provided more recent and comprehensive data on faking bad and faking good on the MMPI-2 that allow the following guidelines. Remember, this is to gain maximum

discrimination power in a statistical analysis; lower scores than those suggested may still suggest malingering, especially when combined with other MMPI-2 data or data from other sources.

A. For discriminating those consciously faking bad within an essentially normal population (using raw scores):

1. Use a cutoff score of 18 on *F*, with those faking bad being higher;
2. Use an *F-K* score of 17 for men and 12 for women, with higher scores indicating faking bad;
3. Use a raw score *Fb* (back side of *F*) of 19 for men and 22 for women, again, higher scores indicating faking bad.

B. For discriminating those consciously faking bad within a psychiatric population (again, using raw scores and assessing higher scores on all of these as suggesting faking bad):

1. Use a cutoff of 27 for men and 29 for women;
2. Use an *F-K* of 27 for men and 25 for women;
3. Use an *Fb* of 23 for men and 24 for women.

Using any of these scales to assess faking good has always been a somewhat difficult discrimination, and Graham et al.'s (1991) data echo that admonition. Also, those solid findings that were obtained are confounded by the issue of whether one is trying to identify faked profiles or honest ones. *L* proved to be the most effective scale for males, with an *L* score of 8 correctly classifying 93% of honest profiles but only 67% of the fake goods. To correctly classify 96% of the males faking good, a cutoff of 4 on *L* was necessary. Scores of 8 and 5 produced similar respective discriminations in females. An *L-K* index of 23 was quite effective, in both directions, for females, but did not work as effectively as *L* alone for males.

When the MMPI was restandardized as

MMPI-2, some of the malingering scales were not retained, most notably Gough's Dissimulation Scale and its later revision, Ds-r, and this is to some very unfortunate (Fox et al., 1995). Fox et al. argued this is especially so, as the Ds-r targets the feigning of more subtle "neurotic" symptoms. These are more often a problem in the school or workplace than are flamboyant psychotic symptoms. Fox et al. (1995) argued that, as only 6 of the 40 Ds-r items were eliminated in MMPI-2, proration is feasible, and they offered some data in this regard.

Lees-Haley, English, and Glenn (1991) devised a Fake Bad Scale for persons who are making a personal injury claim and who are possibly feigning or exaggerating emotional distress. Fox et al. (1995) provided further data for the interpretation of this scale.

Borum and Stock (1993) suggested the use of a more recently developed index, Es-K, using T scores. Using this index was effective in discriminating law enforcement applicants identified as being deceptive from a comparison group for whom no deception was indicated, and this index was superior to all the standard indexes. The deceptive group showed a mean Es-K index of -7.00 ($SD = 4.31$); the comparison group had a +2.22 ($SD = 5.59$), with a low false-positive rate.

Profiles with *F* scores that are in the T range above 90 are commonly associated with extremely disturbed individuals who manifest hallucinations, delusion, and general confusion. This is particularly so when one is dealing with an inpatient population. But, such a T score finding in an outpatient or forensic client should suggest a possibility of malingering (Ganellan, Wasliw, Haywood, & Grossman, 1993). Also, individuals who have a T score of greater than 95 on the *F* scale have probably either responded to the MMPI-2 in a random fashion or have answered virtually all the items "true." If all or the great majority of items

are answered "false," the T scores are typically in the 75-99 range. Graham et al. (1991) noted that, in addition to the high *F*, the highest scales, in order, are typically 8, 6, with lesser but substantial elevations (i.e., a T score of 80-90) on 7, 1, 4, and 9 (slightly less on 9 for females, but in this range on 2), with elevations above 70 on 3, 2, and 0. A fake-good profile tends to have all scores well within the normal range, most near 50, with mild elevations on 5 and 9 in females and on 9 and 0 for men and occasionally on 2 in traditional females.

Malingering or other response distortion (or low comprehension or reading ability) may be reflected in an irrelevant (if not irrelevant) and/or random response pattern. Because the Cannot Say scale is highly related to clinical profile stability and to item change measures, there is good reason for attempting to strongly limit the number of allowable missed responses.

In general, when *F* and *K* are both quite high or when *F* is high and *K* is low, look for deliberate faking. But, if *L* is high and *F* and *K* are well within acceptable limits, first consider faking good, but also consider that the individual is either naive or unsophisticated (or both) and at the same time is trying to look good. If *K* is high and *L* and *F* are within the normal range, a more sophisticated defensive system is probable and the profile can be considered as an indication of subclinical trends.

TRIN and VRIN

Two response inconsistency scales were developed for MMPI-2, True Response Inconsistency (TRIN) and Variable Response Inconsistency (VRIN), and there is good evidence that they are by far the best measures of random or inconsistent responding (Berry et al., 1995; Sabine & Meyer, 1994; Wetter, Baer, Berry, Smith, & Larson, 1992; Wetter & Deitsch, in press).

TRIN is based on 20 item pairs for which

a combination of two true or two false responses is semantically inconsistent, for example, the pair "I am happy most of the time" and "Most of the time I feel blue." A high score (Graham suggests 13 or higher) indicates indiscriminate "true" responding; a low score (less than 6) points to indiscriminate "false" responding.

VRIN is composed of 49 item pairs that produce one or two, out of four, possible configurations (true-true, true-false, false-true, false-false), again, where responses would be semantically inconsistent. Scores occur in a range of 0 to 49, with high scores pointing to random responding and/or confusion. The MMPI-2 research group at the University of Kentucky has accumulated evidence showing that, although both random and malingered responding produced significant elevations on *F* and *Fb*, only random responding generated significant elevations on VRIN (Wetter et al., 1992).

MMPI-A

The development of the MMPI-Adolescent (MMPI-A; Archer, 1992), with its four new validity scales (*F1*, *F2*, VRIN, and TRIN) and adolescent-based norms, has allowed greater precision in the assessment of malingering in adolescents. These four validity scales are included at the beginning of the MMPI-A basic scale profile and should be interpreted in conjunction with *L* and *K*. The validity scales were additionally reordered for the MMPI-A from *L*, *F*, *K* to *F*, *L*, *K*.

The following overall guidelines are for screening for faking good on the MMPI-A: (a) Elevations are found on validity scales *L* and *K* and (b) all clinical scales' T-score values are 60 or less, but produced by adolescents with strongly suspected or established psychotherapy. Screening criteria for faking bad on the MMPI-A are (a) the *F* scale is elevated to a T score of 90 or greater and (b) a floating profile evident, characterized by clinical scale elevations within the

clinical ranges, with the exception of *Mf* and *Si* scale values (Archer, 1992).

16 PF

The older versions of the Sixteen Personality Factor Questionnaire (16 PF) are being rapidly supplanted by the fifth edition of the 16 PF, first available in 1994. It contains an effective Impression Management scale, as well as an Acquiescence Scale (Conn & Rieke, 1994). For those who use the older versions, which are obviously still valid and likely to remain in use for some time, the following data on the Faking Good and Faking Bad scales are useful. The best data are on Form A of the 16 PF.

Winder, O'Dell, and Karson (1975) provided the original data. However, Krug (1978) obtained data on a much broader and more representative sample, and he offered improved cutoff scores. Krug's data suggest that the cutoff score of 6 for the faking-good scales, as suggested by Winder et al., is much too liberal, as, in using this cutoff score, almost 55% of those people who are routinely screened would be labeled as faking good, instead of the approximately 7% that Winder et al. reported. Krug's data would suggest that a raw score of 10 on the faking-good scale would be a much more appropriate cutoff point. Only about 15% of people taking the test would attain a score this high.

Winder et al.'s suggestion of a cutoff score of 6 for the faking-bad scale is supported by Krug. Both report that fewer than 10% of those taking the test will score above 6 on this scale.

Rorschach Test

Difficulties with the use of the Rorschach (Rorschach, 1921/1942; as well as other projective techniques) in the detection of deception—the apparent susceptibility to fake psychosis on the test—were evident in an early study by Albert, Fox, and Kahn (1980). Though using a small sample, results suggested that these experts were unable to dis-

criminate the fakers (uninformed and informed college students) from the actual psychotic individuals, although they did discriminate all groups (fakers and true psychotics) from the normal group. The group most often seen by these experts as psychotic was the Informed Fakers group.

With this in mind, the general clinical literature (Exner, 1993; Gacono & Meloy, 1994; Lerner, 1995; Meloy & Gacono, 1995; Meyer & Deitsch, in press) offers some consensus that malingering clients (especially if unsophisticated) will respond to the Rorschach with a reduced number of responses, and this is the most well-replicated finding. It is also often asserted that they will show slow reaction times, even when they do not produce particularly well-integrated or complex responses. They take a cautious attitude and thereby produce few responses, primarily determined by color. There are often high percentages of pure F and Popular responses. They allegedly may feel distressed by the ambiguity of the stimuli and will subtly try to obtain feedback from the examiner as to the accuracy of their performances. Also, Seamons, Howell, Carlisle, and Roe (1981) noted that if the F%, L, and X+% variables are in the normal range and there are a high number of texture, shading, blood, dramatic, nonhuman-movement, vista, or inappropriate-combination responses, malingering to cause a false appearance of a mentally disordered state should be considered. Ganellan et al. (1993) found malingerers attempting to portray themselves as psychotic to provide more unusual percepts (Xu%) and more Dramatic Content responses, especially Morbid Content.

Other Standard Tests

The MCMI—III (Meyer & Deitsch, in press) contains four modifier indexes, three of which are designed to assess various forms of malingering. These are the Disclosure Scale (DIS), the Desirability Gauge

Scale (DES), and the Debasement Measure (DEB). The fourth modifier, the Validity Index (VI), consists of four items with an endorsement frequency of less than .01. The DIS was designed to detect the degree to which respondents are inclined to be self-revealing and frank and is thought to be neutral to psychopathology. The DES is thought to essentially measure “faking good”; the DEB is thought to measure “faking bad.” However, Bagby, Gillis, Toner, and Goldberg’s (1991) data suggest that all three scales are bidirectional indicators of dissimulations, that is, they tap both faking-bad and faking-good components; hence, they must be used with caution. When an individual is “faking bad,” the Thought Disorder scale is easily elevated, as it is quite susceptible to faking (Jackson, Greenblatt, Davis, Murphy, & Trimakas, 1991). The Disclosure and Debasement scales are positively correlated with the Faking Bad scale and negatively correlated with the Faking Good scale on the original 16 PF test (Grossman & Craig, 1995).

Several other standard though lesser-used personality instruments, the Basic Personality Inventory (BPI) and the California Psychological Inventory (CPI), offer validity scales that allow inferences about malingering (Berry et al., 1995).

On intelligence and other performance tests, there is an overall consensus that malingerers perform too poorly and inconsistently in relation to observed behavior or abilities as assessed by indirect methods. They are more likely to produce abnormal scatter; give illogical, inconsistent, or “approximate” answers; produce odd or surprising “near misses”; miss easy items while they pass hard ones; and also sometimes give bizarre responses where intellectually slow individuals might give concrete responses.

Specific Tests for Malingering

Consultants are advised to look more to specific tests if there is any question of dis-

honesty. For example, the Personality Inventory for Children—Revised, Shortened Format, has been found to be effective in assessing deception in children (Daldin, 1985). Also, scales that tap a social desirability response set, such as the Marlowe–Crowne Social Desirability Scale (Crowne & Marlowe, 1964), give an idea of the direction of a client's response set, and this test has shown good reliability and validity (Robinette, 1991). A validated short version of the Marlowe–Crowne also exists (Zook & Sipp, 1985).

The Schedule for Affective Disorders and Schizophrenia (Spitzer & Endicott, 1978), a semistructured interview technique, is also of potential help here. A drawback of its use with malingerers is that it takes up to 4 hours to complete, although its length makes it easier to trip up a malingering client on inconsistent responses. Malingering is suggested if (a) 16 or more of the “severe” symptoms are subscribed to, (b) 40 or more symptoms are scored in the “clinical” range—a score of 3 or greater—or (c) 4 or more “rare” symptoms are subscribed to. These rare symptoms are each only found in 5% of a sample of 105 forensic patients, and only about 1% of this population showed 5 or more of these symptoms: (a) markedly elevated mood, (b) much less sleep in the previous week, (c) significantly increased activity level in the previous week, (d) thought withdrawal—something or someone is “pulling” thought from them, (e) delusions of guilt, (f) marked somatic delusions, (7) evident and recent loosening of associations, (g) poverty of speech, or (h) neologisms. These rare symptoms could probably be effectively included in a short screening procedure.

The Structured Interview of Reported Symptoms (SIRS; Rogers, 1988) provides 12 strategies for the detection of malingered mental illness. In its current form, the SIRS is alleged to require 30–40 min for administration. In practice, the SIRS is of questionable usefulness as most find it actually

takes an hour or more to administer it, clients find a number of the items to be odd or offensive, it is less effective with the more subtle malingering patterns, and the author of the test has been consistently disinclined to provide any clear cutoff points or decision rules.

The M Test (Beaber, Marston, Michelli, & Mills, 1985) is a brief screening measure designed to identify the malingering of schizophrenic symptoms across a variety of settings. It is composed of 33 true–false statements measuring (a) bizarre attitudes, (b) false symptoms of mental disorder, and (c) true symptoms of schizophrenia. Principal-components analysis of M Test items produced a three-factor solution that closely corresponded to the three scales of the test. Excellent internal consistency reliabilities (KR-20) were obtained in a diverse sample ($n = 318$) of community subjects, undergraduates, correctional inmates, and psychiatric patients (.87 for C, .87 for S, and .93 for M). Although Connell and Meyer (1992) found support for the use of the M Test and the SIRS in this respect, Gillis, Rogers, and Bagby's (1991) data did not support the use of the M Test. Rogers, Bagby, and Gillis (1992) asserted an improvement of the usefulness of the M test with a two-step decision process that is helpful for anyone who consistently uses this test. However, Smith, Borum, and Schinka (1993) suggested the improvement is not as great as Rogers et al. (1992) suggested. Using the M Test, Kurtz and Meyer (1994) reported classification rates of simulated malingerers in correctional samples of 73% and 75%, respectively, although there was a problematic level of false positives. Various authors have offered alternative scoring procedures for the M Test to increase validity.

Rey, in 1964, introduced a simple 15-item (3 columns by 5 rows) visual memory test. Test-taking set is important, as the test is presented as quite difficult, to enhance the malingerer's proneness to exaggerate symptomatology. It has since been adopted

by others as a specific test for malingering. For example, Lee, Loring, and Martin (1992) administered the test to 56 outpatients with neurological disorders and 100 temporal lobe epilepsy inpatients. An error score of 7 was found to occur at or below the fifth percentile for both groups, suggesting 7 as a cutoff score to alert one to possible malingering of memory disorder. Although correlated with intelligence, a consensus of the research is that, in the absence of significant psychiatric disorder, cognitive impairment, or neurological disorder, persons with at least borderline intelligence should not recall fewer than 8–9 items or three complete rows.

The Balanced Inventory of Desirable Responding (BIDR-6; Paulhus, 1991) is a 40 Likert-item self-report measure of the tendency to give socially desirable responses. It has yet to have a minimal clinical application, but it offers potential as a dissimulation measure. Factor analytic investigations of socially desirable responding have yielded two, relatively uncorrelated, factors represented by the BIDR subscales, Self-Deceptive Enhancement (SDE) and Impression Management (IM). The reliability of both scales is favorable, with internal consistency values ranging from .70 to .82 for SDE, and .80 to .86 for IM, across four samples (honest responders, fake good, religious adults, and inmate psychopaths). Test-retest coefficients obtained in an undergraduate research sample ($n = 83$) over a 5-week interval were .69 and .65 for SDE and IM, respectively. Initial evidence for the construct validity of the BIDR scales has been generally positive.

David Schretlen and his colleagues (Schretlen, Wilkins, Van Gorp, & Bobholz, 1992) have provided interesting data to support the use of a recently developed Malingering Test (MgS), the Bender-Gestalt, and the MMPI in the detection of faked insanity. The MgS is a 90-item, paper-and-pencil test, composed of simple questions in both one-ended and forced-choice formats, that

takes about 25 min to complete. On the basis of earlier research, the following scoring criteria (Schretlen et al., 1992) for the Bender-Gestalt were found to be effective in detecting faked psychosis:

(a) inhibited figure size, each figure that could be completely covered by a 3.2 cm square was scored +1; (b) changed position, each easily recognized figure whose position was rotated greater than 45 degrees was scored +1; (c) distorted relationship, each easily recognized figure with correctly drawn parts that were misplaced in relationship to one another was scored +1; (d) complex additions, each easily recognized figure that contained additional complex or bizarre details was scored +1; (e) gross simplification, each figure that showed a developmental level of 6 years or less was scored +1; and (f) inconsistent form quality, each protocol that contained at least one drawing with a developmental level of 6 years or less and at least one drawing with a developmental level of 9 years or more was scored +1. Scores for the first five of these features were then summed as a composite index of faking. (p. 78)

The technique of explicit alternative testing (EAT) is effective for the detection of malingered memory deficits and has been used in a number of studies (Bickart, Meyer, & Connell, 1991; Hall, Shooter, Craine, & Paulsen, 1991). The technique, also known as forced-choice, two-alternative, Symptom Validity Testing, involves the assessment of reported deficit (usually reports of sensory or cognitive loss) by presenting a visual or auditory stimulus randomly over a number of trials with instruction for the patient to guess whether or not the stimulus is actually presented in a given time interval. Various specific tests such as the Portland Digit Recognition Test or the Test of Nonverbal Intelligence are available. Chance responding (generally set at ± 1.96 standard errors of 50% correct) is the expected performance of a genuinely sensorially impaired person. Performance below chance implies that the subject is aware of the stimulus but selec-

tively denies its presence. Using an interference procedure, for example, having the client sort cards between requests for stimuli identification, increases effectiveness. The most common methods used—choosing the opposite color, deliberate attempts to forget the present color, patterned responses—are rarely if ever sufficient for subjects to fool the statistical model.

Hall et al. (1991) presented the following common faking strategies in Symptom Validity Testing: (a) While clients attempt to present realistic symptoms, their perception of what is realistic may be quite off; (b) fakers tend to distribute elaborate errors throughout test rather than miss only difficult items. They unusually do not guess randomly on items which they know but, rather, try to control the percentage of errors; (3) fakers tend to perform at a crudely estimated fraction of their actual ability; and (4) fakers frequently protest that tasks are too difficult or feign confusion and frustration.

Other Methods

One option not often mentioned in discussions of malingering assessment is to focus on personality rather than technique. That is, assess for degree of psychopathy, making two assumptions: first, psychopathy exists as a continuum rather than as an either-or phenomenon in the population; and second, if the situation makes malingering a reasonable expectancy, and a significant degree of psychopathy is found, malingering becomes quite probable. A number of measures for assessing psychopathy are available (Meloy & Gacono 1995), but most experts agree that the premier instrument is Hare's Psychopathy Checklist—Revised (PCL-R; Meloy & Gacono, 1995; Meyer & Deitsch, in press; Widiger & Sanderson, 1995). An added advantage of the PCL-R is that it discriminates two factors; Factor 1, which is considered a measure of true psychopathy, and Factor 2, which is more a measure of social deviance.

It is ironic that, on a relative basis, men-

tal health professionals have not become sophisticated in methods other than psychological test measures of deception. Only recently have clinicians shown any significant interest in adding physiological methods of deception assessment to their armamentarium. At the same time, most states are passing laws that considerably restrict the use of the title "polygrapher," often to those who have specific rather than adequate training. Also, unfortunately, some of the less efficient assessment modalities are often the ones used in the standard examination format and may even be mandated by state law.

One promising development is the use of event-related potentials (ERPs), that is, changes in brain wave activity, upon the presentation of various stimuli that minimize the effects of conscious reflection. ERPs, for example, as measured by an EEG, can be either exogenous, dependent on and varying with external stimulation, or endogenous, manifest when the subject must make a decision about the stimuli and occurring within the first 100–150 ms after the presentation. Both are potentially useful.

Several consistent behavioral cues have been noted in individuals who present a dishonest portrayal of themselves (Bull & Rumsey, 1988; Ekman, 1985; Ekman & O'Sullivan, 1991). For example, on the average, such individuals nod, grimace, and gesture more than honest interviewees do, tend to tighten the eyebrow or lower eyelid, and have less frequent foot or leg movements. They also talk less and pause more often and speak more slowly, although they make more speech errors and smile more often. In addition, the dishonest interviewees tend to take positions that are physically farther from the interviewer. High voice pitch and many face and hand movements, in relation to the individual's standard behavior, are also indicative of deception. Deceivers (a) manifest more nonwords, such as, "ah" or "uh"; (2) show more repetitions such as "I mean...I mean I really"; and (3) use more partial words such as "I cer-certainly did like

it.” Changes in pitch are the most accurate voice indicator of deception. Facial signs are not always reliable. And there is no real support for the idea that people who are deceiving will necessarily avoid eye contact. However, the practical usefulness of behavioral and facial cues is somewhat limited, in part because those cues that are the most imperious to conscious faking are the most difficult to measure.

Comment

It would be useful if graduate training programs in the mental health professions emphasized more the use of physiological measures in detecting deception. For example, the psychologist's extensive background in the study of human behavior and expertise in interviewing and psychological testing could easily be supplemented by this specific training. Not only would this facilitate the accuracy of general psychological testing, it would also provide consulting clients with a much more expert opinion regarding the detection of deception than is available from the usually minimally trained polygrapher.

References

- Albert, S., Fox, H., & Kahn, M. (1980). Faking psychosis on the Rorschach: Can expert judges detect malingering? *Journal of Personality Assessment*, 44, 115–119.
- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.
- Archer, R. (1992). *MMPI-A: Assessing adolescent psychopathology*. Hillsdale, NJ: Erlbaum.
- Bagby, R., Buis, T., & Nicholson, R. (1995). Relative effectiveness of the Standard Validity Scales in detecting fake-good and fake-good responding: Replication and extension. *Psychological Assessment*, 7, 84–92.
- Bagby, R., Gillis, J., Toner, B., & Goldberg, J. (1991). Detecting fake-good and fake-good responding on the Millon Clinical Multiaxial Inventory-II. *Psychological Assessment*, 3, 496–498.
- Beaber, R., Marston, A., Michelli, J., & Mills, M. (1985). A brief test for measuring malingering in schizophrenic individuals. *The American Journal of Psychiatry*, 142, 1478–1481.
- Berry, D., Wetter, M., & Baer, R. (1995). Assessment of malingering. In J. Butcher (Ed.), *Clinical personality assessment*. New York: Oxford.
- Bickart, W., Meyer, R., & Connell, D. (1991). The Symptom Validity Technique as a measure of feigned short-term memory deficit. *American Journal of Forensic Psychology*, 2, 3–11.
- Borum, R., & Stock, H. (1993). Detection of deception in law enforcement applicants. *Law and Human Behavior*, 17, 157–166.
- Bull, R., & Rumsey, N. (1988). *The social psychology of facial appearance*. New York: Springer-Verlag.
- Butcher, J. N., Dahlstrom, W. G., Graham, J. R., Tellegen, A., & Kaemmer, B. (1989). *Minnesota Multiphasic Personality Inventory—2. Manual for administration and scoring*. Minneapolis: University of Minnesota Press.
- Cassini, J., & Workman, D. (1992). The detection of malingering and deception with a Short Form of the MMPI-2 based on L, F, and K Scales. *Journal of Clinical Psychology*, 48, 54–63.
- Conn, S., & Rieke, M. (Eds.). (1994). *The 16 PF fifth edition technical manual*. Champaign, IL: IPAT.
- Connell, D., & Meyer, R. (1992). *Differential validity of the SIRS and M test*. Unpublished manuscript.
- Crowne, D. P., & Marlowe, D. (1964). *The approval motive: Studies in evaluative dependence*. New York: Wiley.
- Daldin, H. (1985). Faking good and faking bad on the Personality Inventory for Children—Revised, Shortened Format. *Journal of Consulting and Clinical Psychology*, 53, 561–563.
- Ekman, P. (1985). *Telling lies*. New York: Norton.
- Ekman, P., & O'Sullivan, M. (1991). Who can catch a liar? *American Psychologist*, 46, 913–920.
- Exner, J. (1993). *The Rorschach: A comprehensive system* (Vol. 2, 3rd ed.). New York: Wiley.
- Fox, D., Gerson, A., & Lees-Haley, P. (1995). Interrelationship of MMPI-2 Validity Scales in personal injury claims. *Journal of Clinical Psychology*, 51, 42–47.
- Gacono, C., & Meloy, J. R. (1994). *The Rorschach assessment of aggressive and psychopathic personalities*. Hillsdale, NJ: Erlbaum.
- Ganellan, R., Wasliw, G., Haywood, T., & Grossman, L. (1993, August). *Can psychosis be malingered on the Rorschach?* Paper presented at the 101st Annual Convention

- of the American Psychological Association, Toronto, Ontario, Canada.
- Gillis, J., Rogers, R., & Bagby, R. (1991). Validity of the M Test. *Journal of Personality Assessment*, *57*, 130–140.
- Graham, J. (1993). *MPPI-2: Assessing personality and psychopathology* (2nd ed.). New York: Oxford.
- Graham, J., Watts, D., & Timbrook, R. (1991). Detecting fake-good and fake-bad MMPI-2 profiles. *Journal of Personality Assessment*, *57*, 264–277.
- Grossman, L., & Craig, R. (1995). Comparison of MCMI-II and 16 PF Validity Scales. *Journal of Personality Assessment*, *64*, 384–389.
- Hall, H., Shooter, E., Craine, J., & Paulsen, S. (1991). Explicit alternative testing: A trilogy of studies on faked memory deficits. *Forensic Reports*, *4*, 259–279.
- Hathaway, S. R., & McKinley, J. C. (1943). *The Minnesota Multiphasic Personality Inventory*. Minneapolis: University of Minnesota Press.
- Hovanitz, C., & Jordan-Brown, D. (1986). The validity of MMPI Subtle and Obvious items in psychiatric patients. *Journal of Clinical Psychology*, *42*, 100–108.
- Iverson, G., Franzen, J., & Hammond, J. (1995). Examination of inmates' ability to malingering on the MMPI-2. *Psychological Assessment*, *7*, 118–121.
- Jackson, D. (1971). The dynamics of structured personality tests. *Psychological Review*, *78*, 224–248.
- Jackson, J., Greenblatt, R., Davis, W., Murphy, T., & Trimakas, K. (1991). Assessment of schizophrenic inpatients with the MCMI. *Journal of Clinical Psychology*, *44*, 72–75.
- Krug, S. (1978). Further evidence on the 16 PF Distortion Scales. *Journal of Personality Assessment*, *42*, 513–518.
- Kurtz, R., & Meyer, R. (1994). *The M Test, MMPI, and SIRS in assessments of malingering*. Albuquerque, NM: American Psychology/Law Society.
- Lee, G., Loring, D., & Martin, R. (1992). Rey's 15-Item Visual Memory Test for the detection of malingering: Normative observations on patients with neurological disorders. *Psychological Assessment*, *4*, 43–46.
- Lees-Haley, P., English, L., & Glenn, W. (1991). A fake bad scale on the MMPI-2 for personal injury claimants. *Psychological Reports*, *68*, 203–210.
- Lerner, P. (1995). Assessing adaptive capacities by means of the Rorschach. In J. Butcher (Ed.), *Clinical personality assessment*. New York: Oxford.
- Meloy, J. R., & Gacono, C. (1995). Assessing the psychopathic personality. In J. Butcher (Ed.), *Clinical personality assessment*. New York: Oxford.
- Meyer, R., & Deitsch, S. (in press). *The clinicians' handbook: Integrated diagnostics, assessment and intervention in adult and adolescent psychopathology* (4th ed.). Boston: Allyn & Bacon.
- Paulhus, D. L. (1991). *Manual for the Balanced Inventory of Desirable Responding*. Unpublished manuscript, University of British Columbia, Vancouver, British Columbia, Canada.
- Pope, K., Butcher, J., & Seelen, J. (1993). MMPI, MMPI-2 and MMPI-A in court: A practical guide for expert witnesses and attorneys. Washington, DC: American Psychological Association.
- Rey, A. (1964). *L'examen clinique en psychologie* [The clinical examination in psychology]. Paris: Presses Universitaires de France.
- Robinette, R. (1991). The relationship between the Marlowe-Crowne Form C and the Validity Scales of the MMPI. *Journal of Clinical Psychology*, *47*, 396–400.
- Rogers, R. (Ed.). (1988). *Clinical assessment of malingering and deception*. New York: Guilford Press.
- Rogers, R., Bagby, M., & Gillis, R. (1992). Improvements in the M Test as a screening measure for malingering. *Bulletin of the American Academy of Psychiatry and the Law*, *20*, 101–104.
- Rorschach, H. (1942). *Psychodiagnosics*. New York: Grune & Stratton. (Original published 1921)
- Rothke, S., Friedman, A., Dahlstrom, W., Green, R. et al. (1994). MMPI-2 normative data for the F-K Index: Implications for clinical, neuropsychological and forensic practice. *Assessment*, *1*, 1–15.
- Sabine, D., & Meyer, R. (1994). *MMPI-2 responses in a low-SES population*. Unpublished manuscript.
- Schretlen, D., Wilkins, S., Van Gorp, W., & Bobholz, J. (1992). Cross-validation of a psychological test battery to detect faked insanity. *Psychological Assessment*, *4*, 77–83.
- Seamons, D., Howell, R., Carlisle, A., & Roe, A. (1981). Rorschach simulation of mental illness and normality by psychotic and nonpsychotic legal offenders. *Journal of Personality Assessment*, *45*, 130–135.
- Smith, G., Borum, R., & Schinka, J. (1993). Rule-out and rule-in scales for the M test for malingering: A cross-validation. *Bulletin of the*

American Academy of Psychiatry and the Law, 21, 107-110.

Spitzer, R., & Endicott, J. (1978). *Schedule of affective disorders and schizophrenia*. New York: Biometrics Research.

Weiner, D., & Harmon, L. (1946). *Subtle and Obvious keys for the MMPI*. (Advisement Bulletin 16). Minneapolis, MN: Regional Veterans Administration Office.

Wetter, M., Baer, R., Berry, D., Smith, G., & Larson, L. (1992). Sensitivity of MMPI-2 Validity Scales to random responding and malingering. *Psychological Assessment*, 4, 369-374.

Wetter, M., & Deitsch, S. (in press). Faking specific disorders and temporal response consistency on the

MMPI-2. *Psychological Assessment*.

Widiger, T., & Sanderson, C. (1995). Assessing personality disorders. In J. Butcher (Ed.), *Clinical personality assessment*. New York: Oxford.

Winder, P., O'Dell, J., & Karson, S. (1975). New Motivational Distortion Scales for the 16 PF. *Journal of Personality Assessment*, 39, 532-537.

Woychysyn, C., McElheran, W., & Romney, D. (1992). MMPI Validity Measures. *Journal of Personality Assessment*, 58, 138-148.

Zook, A., & Sippes, G. (1985). Cross-validation of a short form of the Marlowe-Crowne Social Desirability Scale. *Journal of Clinical Psychology*, 41, 236-238.

UNITED STATES POSTAL SERVICE Statement of Ownership, Management, and Circulation (Required by 39 U.S.C. 3685)

1. Publication Title: *Consulting Psychology Journal: Practice and Research*

2. Issue Date: October 1995

3. Issue Frequency: Quarterly

4. Issue Number: 4

5. Annual Subscription Price: \$27/Inst. - \$14/Indiv. \$75/Inst.

6. Complete Mailing Address of Known Office of Publication (Street, City, County, State, and ZIP+4):
710 First Street NE, Washington, DC 20002-4242

7. Complete Mailing Address of Headquarters or General Business Office of Publisher (Not Printer):
750 First Street NE, Washington, DC 20002-4242

8. Full Name and Complete Mailing Address of Publisher, Editor, and Managing Editor (Not Printer):
Educational Publishing Foundation/American Psychological Association,
750 First Street NE, Washington, DC 20002-4242

9. Owner (Do not check if owned by a corporation. If owned by a corporation, its name and address as well as that of each individual owner must be given and also immediately followed by the names and addresses of stockholders owning or holding 1 percent or more of total amount of stock. If not owned by a corporation, give names and addresses of all individual owners. If owned by a partnership or other unincorporated firm, its name and address as well as that of each individual must be given. If the publication is published by a sole proprietor, give name and address only.)
Susan Knapp, American Psychological Association,
750 First Street NE, Washington, DC 20002-4242

10. Known Bondholders, Mortgagees, and Other Security Holders Owning or Holding 1 Percent or More of Total Amount of Bonds, Mortgages, or Other Securities. If none, check box.
NONE

11. Tax Status (For completion by nonprofit organizations authorized to mail at nonprofit rates. This section includes, but is not limited to, all nonprofit organizations and all entities authorized to mail at nonprofit rates.)
 For-profit
 Non-profit

12. Publication of Statement of Ownership is required by 39 U.S.C. 3685. This publication is published at the address shown on this form and at the address shown on the label.
 Publication of Statement of Ownership is required by 39 U.S.C. 3685. This publication is published at the address shown on this form and at the address shown on the label.

PS Form 3526, October 1994

13. Publication Title: *Consulting Psychology Journal: Practice and Research*

14. Issue Date: Spring 1995

15. Issue Frequency: Quarterly

16. Issue Number: 4

17. Annual Subscription Price: \$27/Inst. - \$14/Indiv. \$75/Inst.

18. Complete Mailing Address of Known Office of Publication (Street, City, County, State, and ZIP+4):
710 First Street NE, Washington, DC 20002-4242

19. Complete Mailing Address of Headquarters or General Business Office of Publisher (Not Printer):
750 First Street NE, Washington, DC 20002-4242

20. Full Name and Complete Mailing Address of Publisher, Editor, and Managing Editor (Not Printer):
Educational Publishing Foundation/American Psychological Association,
750 First Street NE, Washington, DC 20002-4242

21. Known Bondholders, Mortgagees, and Other Security Holders Owning or Holding 1 Percent or More of Total Amount of Bonds, Mortgages, or Other Securities. If none, check box.
NONE

22. Publication of Statement of Ownership is required by 39 U.S.C. 3685. This publication is published at the address shown on this form and at the address shown on the label.
 Publication of Statement of Ownership is required by 39 U.S.C. 3685. This publication is published at the address shown on this form and at the address shown on the label.

PS Form 3526, October 1994

Instructions to Publishers

- Complete and file one copy of this form with your postmaster on or before October 1, annually. Keep a copy of the completed form for your records.
- Include in items 13 and 14, in cases where the distribution is primarily to a single individual, the name of the person or corporation for whom the publication is being published, the name and address of the publisher, and the name and address of the distributor. Use the name and address of the distributor if the publication is published by a sole proprietor.
- Be sure to furnish all information called for in item 13, regarding circulation. This information must be shown in item 13a, and 1.
- If a publication has distribution information for a general or regular subscription, the Statement of Ownership, Management, and Circulation must be obtained or must be printed in any issue in October or the first printed issue after October if the publication is not published during October.
- In item 13, indicate the date of the issue in which this Statement of Ownership will be printed.
- Item 17 must be signed.
- Failure to file or publication of a statement of ownership may result in suspension of second-class authorization.