

The Mental State at the Time of the Offense Measure: Its Validation and Admissibility under *Daubert*

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Melton *et al.* (Melton GB, Petrila J, Poythress NG, Slobogin C: *Psychological Evaluations for the Courts* (ed 2). New York: Guilford, 1997) recently advocated the use of the Mental State at the Time of the Offense (MSE-Offense) measure not only as a screen for insanity evaluations but also as the sole measure in "obvious" cases of insanity. Given this recommendation for expanding the role of the MSE-Offense, the current authors have evaluated the available data based on its construction and validation. We found fundamental flaws in its development and grave shortcomings in its validation. Based on these limitations, we conclude that the MSE-Offense is unacceptable under the *Daubert* standard (*Daubert v. Merrell Dow Pharmaceuticals, Inc.*, U.S. 113 S. Ct. 2786 (1993)) for either the screening or determination of criminal responsibility.

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Slobogin *et al.*¹ originally developed the Mental State at the Time of the Offense (hereinafter, MSE-Offense) screening evaluation in 1984 as an interview-based measure to assist forensic examiners in their clinical assessment and decision making on issues related to criminal responsibility. More specifically, it was intended to be an effective outpatient screen for three legal doctrines: the insanity defense, diminished capacity defense, and the unconsciousness defense (p. 307). A 1997 review of the MSE-Offense, conducted by its primary authors (Slobogin and Melton) and their colleagues² reaffirmed their earlier position³ that the MSE-Offense was a useful and cost-effective method of screening criminal defendants for possible legal defenses. Moreover, Melton *et al.*² asserted that the "MSE may be able

to detect the obviously insane individual for whom a more comprehensive evaluation is unnecessary" (p. 235).

Overview

Early reviews^{4, 5} observed important psychometric limitations of the MSE-Offense. Nonetheless, as a newly developed measure with the anticipation of more sophisticated research based on a previously collected sample of 207 defendants, the tenor of these reviews was generally positive. The current analysis of the MSE-Offense was prompted by (1) the absence of any further validation, and (2), more importantly, the Melton *et al.*² recommendation advocating its expanded use. They indicated that the MSE-Offense might be used as the sole determinant in "obvious" cases of insanity.

Forensic psychiatrists and psychologists must grapple with several related issues when conducting insanity evaluations. First, does the MSE-Offense

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deliver on its promises to be either a cost-effective screen or the sole measure for insanity evaluations? If either claim is true, forensic experts should consider its use for assessments of criminal responsibility. If neither is true, forensic experts must be able to marshal sufficient data to rebut its use by other experts. Second, when used as the basis of expert testimony, does the MSE-Offense meet the *Daubert* standard of admissibility? Beyond validity, the *Daubert* standard sets forth explicit guidelines for the admissibility of expert testimony. To provide a framework for the paper, the *Daubert* guidelines are briefly summarized.

The United States Supreme Court in a landmark decision (*Daubert v. Merrell Dow Pharmaceuticals*)⁶ established the parameters for the admissibility of expert testimony, based on science, in federal courts. As delineated by Richardson *et al.*,⁷ the *Daubert* standard articulates the following four guidelines for the admissibility of expert testimony: (1) falsifiability of the theory, (2) known or potential error rate, (3) peer reviewed and published research, and (4) general acceptance of the science. In subsequent decisions,^{8,9} the Supreme Court has reaffirmed the *Daubert* standard and extended its applications beyond science-based testimony to all forms of expert testimony.¹⁰ As reviewed by Rogers and Shuman,¹¹ appellate decisions have ruled standardized measures and tests inadmissible if they are insufficiently validated for their forensic applications.

The remainder of this article is organized into two major sections. First, we review the development and validation of the MSE-Offense. Conclusions are drawn regarding the adequacy of its validation, as either a screen or a comprehensive measure of criminal responsibility. Second, we apply the *Daubert* guidelines to the MSE-Offense to assess its potential admissibility.

The Development and Validation of the MSE-Offense

Development of the MSE-Offense

The MSE-Offense is composed of three sections that differ substantially both in structure and format: (1) Historical Information, (2) Offense Information, and (3) a Present Mental Status Examination. The Historical Information section is organized by five decisions regarding the presence of certain mental disorders that might warrant a legal defense. This

section provides screening items and considers the relevance of specific diagnoses. These disorders form the basis of determining whether the defendant meets the authors' criteria¹ of "approaching legal relevance" (p. 319). The Offense Information section is simply an outline of topics to be covered (e.g., external stressors, substance abuse, changes in job or family status, and postoffense behavior). Unlike the prior section, it offers (a) no guidelines on how to integrate these data and (b) no criteria for addressing the three legal doctrines (i.e., insanity defense, diminished capacity defense, and the unconsciousness defense). The final section (Present Mental Status Examination) is not even provided; experts are apparently expected to follow a "typical" mental status examination.

In the construction of the MSE-Offense, the standardization of data is not well conceptualized. Historical Information is composed of narrative information with five standard decision points reflecting nominal data. Offense Information consists entirely of narrative information. Present Mental Status Examination, assuming it follows a format similar to the widely used Mini-Mental Status Examination or MMSE¹² uses nominal data, which are summed to form a single scale. Many enduring problems with the MSE-Offense validation stem directly from its unstandardized format (i.e., the lack of specific criteria for coding/rating data) and level of measurement (i.e., only nominal).

A critical defect in the construction of the MSE-Offense is its use of screening items that are not representative of the mental disorders under consideration. For example, the only mood-related items used in screening for depression and bipolar disorders are aggressive and negativistic affect. Crucial symptoms related to depressed and elevated moods are entirely neglected. As an additional example, the screening items for delirium do not address the essential feature underlying its diagnosis, namely a disturbance of consciousness.

The MSE-Offense was designed to be used in conjunction with DSM-III.¹³ However, its conceptualization of syndromes and use of clinical terms are incompatible with DSM-III and subsequent revisions.^{14,15} Examples of this incompatibility¹ are plentiful:

1. On the MSE-Offense, mood disorders are subsumed under psychoses. In contrast, mood disorders constitute their own diagnostic group in DSM-III

and its subsequent revisions, based on their etiology and symptomatology.

2. On the MSE-Offense, hallucinations and delusions are listed as "bizarre behavior." In contrast, DSM has consistently defined hallucinations as perceptual disturbances and delusions as patently false beliefs that are held despite incontrovertible evidence to the contrary.

3. On the MSE-Offense, sudden alterations of consciousness are subsumed under "bizarre behavior." In DSM, disturbances in consciousness are manifested by decreased awareness of the environment.¹⁵

4. On the MSE-Offense, disorganized behavior is considered a "disturbance of affect." In contrast, DSM clearly delineates that the hallmark of affect is the expression of emotion.

Clinicians employing the MSE-Offense are asked to render a composite conclusory opinion regarding the likelihood that defendants meet three legal doctrines (insanity, diminished capacity, and unconsciousness). The MSE-Offense¹ purports to permit clinicians to determine a "significant mental abnormality approaching legal relevance" (p. 319); the foundation for this opinion is inadequate, based on its limited coverage of mental disorders. It does not address severe personality disorders (e.g., borderline and schizotypal) or certain Axis I disorders (e.g., dissociative identity disorder). Epidemiological research¹⁶ has clearly demonstrated the relevance of certain Axis II disorders to insanity verdicts. Furthermore, dissociative disorders must be evaluated for criminal responsibility, despite the controversy surrounding their relevance.^{17, 18}

The basis for the composite conclusory opinion is not explicated beyond the decision points in the Historical Information section. Clinical judgments in the most relevant section (i.e., Offense Information) are completely idiosyncratic without any standardized procedures for integrating data or rendering the final composite opinion regarding legal defenses. The lack of systematic decision models militates against accurate decision making.¹⁹

Validation of the MSE-Offense

Design Issues

The MSE-Offense was designed² for "outpatient evaluations at the initial stages of the criminal process" (p. 235). However, the research design for its validation does not allow conclusions to be drawn regarding its use as an initial screen in community

settings. The Slobogin *et al.* study¹ was conducted entirely at a maximum security hospital with inpatients who had been previously screened in the community. Based on the research design, which eliminates all defendants not sent to this inpatient facility, the sample cannot be considered representative of outpatient evaluations. Moreover, the demand characteristics²⁰ to find a legally relevant mental disorder are likely to be substantial, based on both the sample (i.e., patients' status indicated that mental health professionals believed that legally relevant disorders were likely to exist and that courts agreed with these judgments) and the setting (i.e., maximum security facilities are likely to have defendants with legally relevant disorders). This compelling threat to external validity undermines the basic supposition of Slobogin *et al.*¹ and Melton *et al.*^{2, 3}; these authors uncritically assume that clinicians using the MSE-Offense will not miss defendants with potentially viable legal defenses. However, the results are confounded by demand characteristics, resulting from evaluations of prescreened defendants in a maximum security hospital. Beyond demand characteristics, the usefulness of the study is further constrained by the research design, which limits its conclusions to an atypical assessment model (i.e., pairs of mental health professionals conducting joint interviews) of outpatient evaluations.

Reliability Issues

The establishment of reliability is a necessary precondition to validity.²¹ No data are available regarding the reliability of the clinical observations, the five decisions, or the composite conclusory opinion. We have no data on whether forensic clinicians agree (interrater reliability) or whether MSE-Offense findings remain stable over time (test-retest reliability). By itself, this fundamental oversight in the MSE-Offense's validation precludes its use in clinical or forensic settings.

Validity Issues

A crucial point, overlooked in past reviews,^{4, 5, 22, 23} is that the validation of the MSE-Offense relies exclusively on ultimate opinions. Although the MSE-Offense includes three levels of data (clinical observations, decision data, and a composite ultimate opinion), validation¹ has focused exclusively on the ultimate issue, namely the *three legal doctrines regarding criminal culpability* (p. 307). At present, validation is nonexistent regarding the effectiveness

of the MSE-Offense in identifying key symptoms, establishing provisional diagnoses, or applying its five decision rules. Given the exclusive focus of ultimate opinions, its construct validity regarding the three legal doctrines remains unexamined.

For criterion-related validity, the convergence between MSE-Offense and inpatient assessments was examined on a modest sample of 36 defendants. The inpatient assessments were less comprehensive than expected for complex assessments of criminal responsibility¹¹; some cases were "completed" with only one hour of direct clinical contact, leading us to question the adequacy of these inpatient insanity evaluations. Bearing this important caveat in mind, the results indicated a moderate convergence (72.2%) between the MSE-Offense and inpatient assessments.

Slobogin *et al.*¹ also compared the MSE-Offense with 28 cases in which verdicts were available. Overall, the results suggested modest concordance (65.4%), which was statistically nonsignificant ($\kappa = .26$; $p = .17$). Both the limited sample ($n = 28$) and the paucity of cases in which a legal defense was successfully raised (i.e., insanity cases, $n = 2$) further controvert any meaningful interpretation of these nonsignificant findings.

Usefulness of the MSE-Offense in Insanity Evaluations

The available data do not support the use of the MSE-Offense either for screening purposes or ultimate determinations of criminal responsibility.¹¹ As clearly articulated by Heilbrun,²⁴ a measure without established reliability should not be used in forensic evaluations. Moreover, the measure itself is highly problematic in terms of its coverage, incompatibility with the DSM, and lack of decision rules. In 15 years, its sole validity study produced only mixed results that are likely confounded by demand characteristics.

As previously noted, Melton *et al.*² argued for an expanded use of the MSE-Offense for the determination of insanity (i.e., "to detect the obviously insane individual for whom a more comprehensive evaluation is unnecessary" (p. 235)). The designation "obviously insane individual" is predicated on a forensic expert's rendering an ultimate opinion. This point is unambiguous: if the expert is deciding that a defendant is "obviously insane" on the basis of the MSE-Offense, then the expert is rendering an ultimate opinion.

Melton *et al.*^{2, 3} have championed a position that

explicitly prohibits mental health professionals from rendering ultimate opinions because such opinions are categorically beyond the expertise of mental health professionals, entailing moral and legal determinations. We are unable to reconcile the unwavering opposition of Melton *et al.* to ultimate opinions with this obvious endorsement of ultimate opinions. Moreover, even defenders of ultimate opinions by forensic experts are unlikely to endorse such an overreaching and unsubstantiated application. For example, Rogers and colleagues^{11, 25, 26} have delineated circumstances in which reliable clinical data would support conclusory or ultimate opinions. However, an ultimate opinion without extensive substantiation is never warranted.

Melton *et al.*² argued that the MSE-Offense would be a sufficient database for the evaluation of insanity in "obvious cases." To avoid any misunderstandings, they proposed that a single interview of less than an hour (see Slobogin *et al.*,¹ p. 311) and averaging 30 minutes (see Melton *et al.*,² p. 234) would suffice "to detect the obviously insane individual for whom a more comprehensive evaluation is unnecessary" (Melton *et al.*,² p. 235). Even if the MSE-Offense had established reliability and validity, this statement would be very troubling. No insanity determination is that "obvious." Insanity evaluations^{5, 11} must grapple with (1) the assessment of malingering and related response styles, (2) retrospective diagnoses and symptom severity, and (3) the retrospective application of a multifaceted insanity standard.

Application of the Daubert Standard to the MSE-Offense

A major focus of this article is the admissibility of the MSE-Offense under the *Daubert* standard. The following paragraphs consider each of *Daubert's* four components.

Falsifiability of the Theory

The underlying formulation of the MSE-Offense is nonscientific and virtually impossible to test empirically. The foundation of the MSE-Offense is the dichotomization of mental disorders into two categories: (1) approaching legal relevance and (2) not approaching legal relevance. Because these categories are not clearly delineated (i.e., "approaching" cannot be demarcated), their falsifiability is at issue. In ad-

dition, the current conceptualization of the MSE-Offense embraces automatism or the unconsciousness defense. The underlying assumptions of automatism are both controversial and virtually untestable.²⁷

Known or Potential Error Rate

Insufficient normative data are available to establish the error rate of the MSE-Offense. Slobogin *et al.*¹ did not report any data on two of the three legal doctrines that the MSE-Offense addresses: the diminished capacity defense and the unconsciousness defense. For insanity, only two acquittals were studied.

Peer-Reviewed and Published Research

The publication of one small-scale empirical article in 15 years is, at best, a very marginal satisfaction of this guideline.

General Acceptance of the Science

This guideline can be understood in terms of (1) the practices of recognized experts or (2) correct application of scientific principles. Regarding the former, Borum and Grisso²⁸ surveyed credentialed and highly experienced forensic psychologists and psychiatrists. They found very few experts who had ever used the MSE-Offense: 0 percent of forensic psychologists and 2.4 percent of forensic psychiatrists. A more sophisticated approach to scientific acceptance is to evaluate whether the measure meets the scientific standards established in a respective field. Marlowe²⁹ provided an interesting discussion of basic requirements for test validation under the *Daubert* standard. Prominent in this discussion was the establishment of reliability and normative data, both of which are absent from the MSE-Offense. As mandated by the American Psychological Association's "Standards for Educational and Psychological Testing,"³⁰ an essential requirement of standardized measures and tests is the provision of reliability estimates. This essential requirement has yet to be fulfilled by the MSE-Offense.

Conclusions

The MSE-Offense does not meet the rudimentary requirements for its application in any setting (e.g., forensic or nonforensic) for any purpose (e.g., screen or evaluation). Given the defects in its structure and

shortcomings in validation, the MSE-Offense is best viewed as a historical artifact with no justifiable use in contemporary forensic practice. In applying *Daubert*, the MSE-Offense does not pass muster for falsifiability, known or potential error rate, or general acceptance.

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