Mentally Ill and Non-Mentally Ill Defendants' Abilities to Understand Information Relevant to Adjudication: A Preliminary Study

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The legal construct of competence to stand trial, or "adjudicative competence," is based on the premise that some mentally disordered defendants have impaired abilities when compared with most defendants and that adjudication should be barred if these competence-related abilities are significantly impaired. Where the line is drawn between sufficient and insufficient abilities has important consequences: as a result of being adjudicated incompetent, defendants may be detained and treated involuntarily and their trials will be delayed. However, no studies have systematically compared the capacities of relevant groups of defendants. In this study, 84 criminal defendants—42 of whom were hospitalized as incompetent and 42 of whom were regarded as unquestionably competent—were administered three instruments measuring capacity to understand legally relevant information. Incompetent defendants performed more poorly on all measures of understanding. Twenty-eight incompetent defendants were administered the measures a second time, after restoration to competence. Restored defendants improved their performance on all measures of understanding and their performance was similar to that of normal, competent defendants.

Differential legal treatment of defendants with and without mental disorders is based on assumptions about the respective abilities of these two groups. In the criminal justice system, mentally ill criminal defendants may not be allowed to proceed to adjudication because of impairments in their capacities to participate in the legal process.[1,2]

How the line is drawn between legally sufficient and legally insufficient capacities has substantial consequences for defendants and society. Defense attorneys

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have doubts about their clients' competence in 8 to 15 percent of felony cases,[3, 4] and assessments of adjudicative competence (we prefer this term to "competence to stand trial" because most defendants' cases are disposed of through guilty pleas, not the trial process) are among the most frequently requested types of forensic evaluation of mental health professionals in the United States. Although evaluations are done on an outpatient basis with increasing frequency, many defendants will be involuntarily committed to public mental health institutions for competence assessments.[5] Commitments entail significant deprivations of liberty for defendants, who might otherwise be free before trial, considerable financial costs for the public, and substantial delays in the criminal justice process. Moreover, following evaluation, some of these defendants will be confined for longer periods for restoration of competence at the price of even greater loss of liberty, expense, and delay.[6]

Given the important public policy implications of the evaluation of adjudicative competence, it is surprising how little is known about relevant defendant capacities. After completing comprehensive reviews of relevant research, Grisso has concluded that reliable data about the capacities of mentally disordered criminal defendants and non-mentally disordered defendants are not available.[7, 8]

This article reports results from the pilot phase of a larger research project designed to compare competence-related capacities of mentally disordered and non-mentally disordered criminal defendants and to determine how these capacities are related to mental disorders and psychopathology.[9] The conceptual legal framework for this program of research has been described elsewhere.[2, 10, 11] Drawing on the work of other researchers,[12–15] we will investigate defendants' capacities to communicate a choice, to understand relevant information, to appreciate their legal situations, and to manipulate relevant information rationally.

The data reported in this article come from an initial study employing instruments designed to measure defendants' capacities to understand legally relevant information, a required element of adjudicative competence, as articulated by the U.S. Supreme Court in *Dusky v. United States*.[16]

Methods

Subjects Two groups of subjects, incompetent (INC) and competent (COM) were recruited at two sites, Florida and Virginia. All subjects were males. Forty-two INC subjects (27 in Virginia, 15 in Florida) were recruited from patients at state psychiatric hospitals where treatment to restore competence is provided; only patients rated by a member of the treatment team as "clearly incompetent" to have their criminal cases adjudicated were eligible for participation, and patients with primary diagnoses of organic conditions were excluded. The COM subjects (27 in Virginia, 15 in Florida) were recruited with the assistance of public defender staff attorneys. Attorneys were asked to identify defendants who, to their knowledge, were of roughly normal intelligence and did not have a history of psychiatric treatment, and about whom

they harbored no doubts regarding competence.

For both groups, selection criteria included that subjects be between the ages of 18 and 65; a prorated estimate of verbal IQ based on three subscales of the Wechsler Adult Intelligence Scale-Revised (WAIS-R) was used to screen out subjects suspected of being mentally retarded (estimated IQ < 70). Both white and African-American subjects were recruited, and subjects were selected so that each race would be represented by at least one-third of the subjects in the COM and INC groups.

Measures Three instruments for the measurement of understanding were used in this study: Assisting Counsel: Measurement of Understanding (ACMU), Pleading Guilty: Measurement of Understanding (PGMU), and Waiving a Jury: Measurement of Understanding (WJMU). The ACMU is a measure of understanding of information relevant to criminal proceedings and assisting counsel; the two remaining instruments measure understanding of information relevant to the decisions that defendants most frequently confront.[3, 4] The PGMU measures understanding of information relevant to the decision to plead guilty. The WJMU measures understanding of information relevant to the decision to waive jury trial and seek a trial by a judge.

The ACMU, PGMU, and WJMU convey information to subjects in small units, presented as a series of vignettes involving a fictional defendant and his attorney. In most instances, following each unit of disclosure, subjects' understanding of the information is measured in two ways. First, subjects are asked to tell the interviewer the content of the disclosure in their own words; this is the paraphrase response. Second, the subjects are presented with a series of four true-false questions about the content of the disclosure. This format tests recognition and may be useful with defendants with impaired expressive skills.

The paraphrase responses are scored based on standardized scoring criteria that provide definitions and examples. Each item is scored 2, 1, or 0 depending on whether correct, partially correct, or incorrect answers are given, respectively. Research assistants achieved high rates of agreement scoring the paraphrase responses of COM and INC subjects. Correlations for the COM group were high: ACMU, .90; PGMU, .85; and WJMU, .90. The correlations for the scoring for the INC group were in a the same range: ACMU, .85; PGMU, .92; and WJMU, .87.

Responses to the true-false questions are scored to correct for chance selection of appropriate responses. Within each unit of disclosure, assessed with a set of four true-false questions, a score of 2 is assigned if all responses are correct. A score of 1 is assigned if the subject responds correctly to three of the questions. A score of 0 is assigned if two or fewer questions are correctly answered.

The ACMU has a possible range of scores of 0 to 26—paraphrase, 0 to 16, and true-false, 0 to 10. The PGMU has a range of possible scores of 0 to 20—paraphrase, 0 to 10, and true-false, 0 to 10. The WJMU has a range of possible

scores of 0 to 18—paraphrase, 0 to 8, and true-false, 0 to 10.

Verbal IQ was estimated using the vocabulary, digit span, and similarities subscales from the WAIS-R. Psychopathology was assessed with the 19-item version of the Brief Psychiatric Rating Scale (BPRS).[17] The two research assistants, one at each site, were trained jointly in the administration of the BPRS, and reliability was attained prior to the initiation of the study.

Procedures Subjects in the INC group were recruited shortly after admission to the state psychiatric hospital. Informed consent was obtained and basic demographic, social history, and clinical information were obtained by self-report and chart review. Research protocols were administered within the first 10 days of admission to minimize the effects of treatment on performance. The mean time of administration was 5.1 days (SD = 2.1) after admission.

Research assistants followed up with treatment team members to determine when subjects had been recommended for return to court. Incompetent subjects were reassessed before discharge when they were thought by the treating clinician to have been restored to competence; 28 subjects (17 from Virginia, 11 from Florida), comprising the restored group (RES), were successfully reassessed. The mean interval between the initial and restoration assessments was 97.9 days (SD = 50.5).

Missing interviews resulted when subjects were returned to court before data collection could be arranged; no subject refused to be reinterviewed. A comparison of those subjects who were successfully reinterviewed with those who were not revealed no significant differences in demographic variables, criminal history variables, psychiatric history variables, or in initial performance on the ACMU, PGMU, WJMU, verbal IQ, or BPRS.

Subjects in the COM group were recruited through cooperating public defender offices; protocols were administered in the jail or, for subjects on bond, at the public defenders' offices.

All subjects and controls gave informed consent to participation and were paid 10 dollars for each assessment.

Results

Demographic Data Demographic data are summarized in Table 1. Incompetent subjects were older than competent subjects ($t = -2.27$, $df = 82$, $p < .05$). In the INC group, 27 subjects were diagnosed with schizophrenia, 7 with bipolar disorder, 3 with major depression, and 3 with psychotic disorder, not otherwise specfied (NOS), or substance induced; 2 subjects remained undiagnosed at the time of assessment. The mean age at first psychiatric admission for the INC subjects was 21.3 (SD = 8.8) and the mean number of previous admissions was 4.5 (SD = 2.9).

Competent Versus Incompetent Group Differences Criminal history, estimated verbal IQ, and BPRS data are summarized for the two groups at the bottom of Table 1. Incompetent subjects had lower estimated verbal IQ ($t = 3.17$, $df = 82$, $p < .005$), and higher BPRS scores ($t = -10.21$, $df = 82$, $p < .001$).

Table 1
Description of Samples

	Competent, N = 42	Incompetent, N = 42
Average age	28.0 (SD = 7.22)	32.0 (SD = 8.73)
White (%)	25 (60%)	20 (48%)
Occupation		
Unemployed	8 (19%)	12 (29%)
Skilled/unskilled	33 (78%)	24 (58%)
Clerical or higher	1 (2%)	6 (15%)
Education		
Less than 7 years	1 (2%)	2 (4%)
7–11 years	21 (50%)	16 (39%)
High school degrees	17 (40%)	15 (36%)
13 or more years	3 (7%)	9 (21%)
Most serious offense		
Felony against person	16 (39%)	23 (61%)
Felony against property	23 (56%)	11 (29%)
Misdemeanor	2 (5%)	4 (11%)
Average BPRS score	28.5 (SD = 4.13)	45.8 (SD = 10.12)
Average verbal IQ	91.4 (SD = 15.16)	82.4 (SD = 10.32)
History of prior arrests	41 (98%)	40 (95%)
History of felony convictions	32 (76%)	19 (46%)

Table 2 shows the scores of the INC and COM groups on the three measures of understanding. The COM group performed better on the ACMU, PGMU, and WJMU (MANOVA (F (1,75) = 14.63, $p < .001$)). Univariate analyses indicated group differences on all measures to be highly significant. Subjects' performance

Table 2
Means and Standard Deviations for Groups on Understanding: Total Scores and Subscales

	Competent, N = 42		Incompetent, N = 42		
	Mean	SD	Mean	SD	p
ACMU					
Paraphrase	9.9	2.6	5.6	3.0	<.001
True-false	8.8	1.3	6.2	2.6	<.001
Total	18.9	3.3	11.8	3.3	<.001
PGMU					
Paraphrase	7.2	2.1	3.6	2.4	<.001
True-false	7.9	2.0	4.6	2.5	<.001
Total	15.2	3.6	8.1	4.3	<.001
WJMU					
Paraphrase	6.5	2.0	3.7	2.5	<.001
True-false	8.4	1.5	5.4	2.6	<.001
Total	12.8	3.0	7.7	4.0	<.001

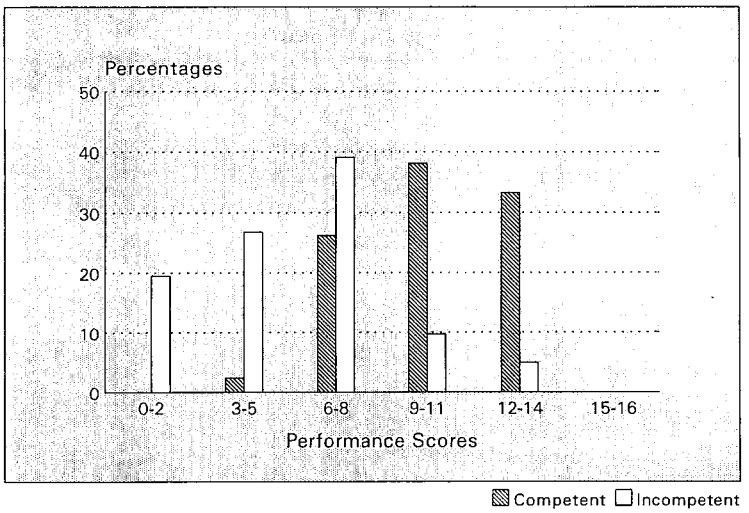

Figure 1. ACMU paraphrase scores.

on the measures (i.e., total scores) were highly intercorrelated: ACMU and PGMU, $r = .85$, $p < .001$; ACMU and WJMU, $r = .83$, $p < .001$; and PGMU and WJMU, $r = .84$, $p < .001$.

Figures 1 through 3 indicate the distribution of subject scores on the ACMU, PGMU, and WJMU paraphrase measures. The scores of the INC subjects overlap substantially with those of the COM subjects. The groups' score distributions, and the overlap between the groups, are similar for the true-false measures of the ACMU, PGMU, and WJMU (not shown).

Comparisons of the Restored Group

At the time of the second assessment, the

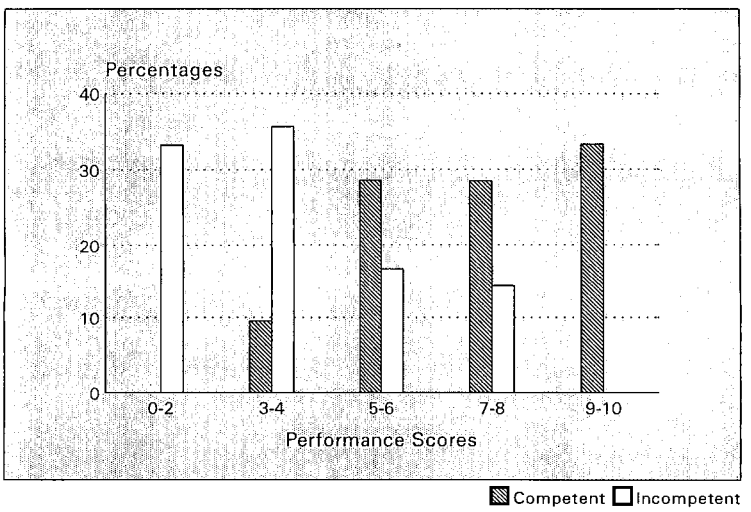

Figure 2. PGMU paraphrase scores.

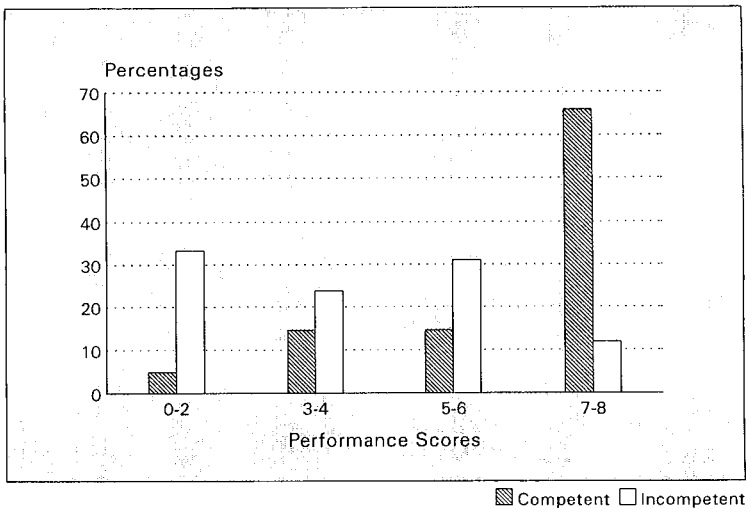

Figure 3. WJMU paraphrase scores.

RES group had experienced significant improvements in measures of psychopathology (BPRS) (34.00 ± 7.10 compared with 45.39 ± 11.73 at initial assessment; paired t test, $t = 7.05$, $p < .001$), and estimated verbal IQ (91.0 ± 11.7 compared with 82.1 ± 11.1 at initial assessment; paired t test, $t = -5.35$, $p < .001$).

Table 3 summarizes a series of paired t tests comparing the scores of the RES group at the time of restoration with their scores obtained shortly after hospital admission while they were incompetent. The RES group achieved higher scores on all measures of understanding at the time of reassessment, although statistical sig-

Table 3
Means and Standard Deviations for Incompetent and Restored Groups on ACMU, PGMU, and WJMU (N = 28)

	Incompetent		Restored *p*			
	Mean	SD	Mean	SD	*t*	*p*
ACMU						
Paraphrase	5.8	3.4	8.8	3.8	−3.86	<.001
True-false	6.3	2.7	8.2	2.0	−3.96	<.001
Total	12.1	5.4	16.9	5.3	−4.42	<.001
PGMU						
Paraphrase	4.0	2.5	5.7	2.5	−4.00	<.001
True-false	5.1	2.7	7.5	2.5	−4.91	<.001
Total	9.2	4.7	13.3	4.7	−5.29	<.001
WJMU						
Paraphrase	3.9	2.4	5.7	2.1	−5.68	<.001
True-false	5.6	2.7	6.4	2.0	−1.75	.09
Total	8.4	4.1	11.8	3.9	−6.08	<.001

Table 4
Correlations Between ACMU, PGMU, and WJMU and Clinical and Cognitive Measures

	Competent		Incompetent		Restored	
	VIQ[a]	BPRS	VIQ	BPRS	VIQ	BPRS
ACMU						
Paraphrase	.59**	−.21	.47**	−.18	.31	−.14
True-false	.59**	−.19	.51**	−.15	.46	−.09*
Total	.67**	−.23	.55**	−.19	.39*	−.13
PGMU						
Paraphrase	.59**	−.30	.59**	−.10	.75**	.21
True-false	.42**	−.29	.48**	−.11	.66**	−.16
Total	.56**	−.33*	.60**	−.12	.77**	.02
WJMU						
Paraphrase	.33*	−.36*	.62**	−.00	.58**	−.01
True-false	.53**	−.28	.47**	−.09	.57**	−.16
Total	.48**	−.37*	.58**	−.10	.60**	−.11

*$p \leq .05$; **$p \leq .01$; ***$p \leq .001$.
[a]VIQ, verbal intelligence quotient.

nificance was not achieved for the comparison of WJMU true-false scores. No reliable differences were found between the COM and the RES groups on any of the measures of understanding capacities (F (1,61) = 1.64, p = .15).

Correlates of Performance Table 4 shows correlations between performance on the understanding measures and verbal IQ and BPRS scores. In general, the verbal IQ scores correlated with performance on all measures of understanding in all three groups. In the COM group, BPRS was significantly correlated with PGMU ($r = -0.33$, $p < .05$), WJMU paraphrase ($r = -0.36$, $p < .05$), and WJMU scores ($r = -0.37$).

Discussion

Our findings indicate that mentally disordered defendants, identified as incompetent to stand trial, are impaired in their ability to understand information relevant to the adjudicative process. In comparisons with nondisordered defendants and with themselves when they have been restored to competence, mentally disordered defendants identified as incompetent were impaired in their ability to understand information relevant to assisting counsel, pleading guilty, and waiving a jury. These findings were obtained by standardized procedures that included three measures of understanding, each involving two response formats. Similar findings regarding the ability of mentally disordered and non-mentally disordered patients to understand treatment disclosures have been reported.[18]

Mentally disordered defendants' impairments in understanding were related to verbal intelligence and to psychopathology. The association between low verbal IQ and impaired capacity to understand must be interpreted cautiously. It is likely that among the mentally ill, performance on measures of verbal intellectual functioning are strongly influenced by

cognitive impairments and distress resulting from mental disorder. This is demonstrated by the marked improvements noted in estimated verbal IQ, as well as BPRS, that accompanied inpatient treatment in our subjects who were restored to competence. Thus, among the mentally disordered, current intelligence scores are likely to represent performance at the time of testing, but not necessarily the underlying capacities of subjects. Current measures of verbal IQ, however, may be useful in identifying mentally disordered defendants who may have impaired capacities to understand.

Within groups, we found little or no relationship between our measures of understanding and psychopathology as measured by BPRS. Pending further research, we can only hypothesize about the reasons we failed to find the expected correlation between psychopathology and defendants' capacities to understand. One possibility is that the total BPRS score is too crude an index of psychopathology: higher BPRS scores may be the result of prominent symptoms, such as anxiety or depression, that are not associated with impaired understanding. Thus, a very anxious and depressed subject may receive a total BPRS score similar to a subject who is suffering from hallucinations and delusions, thereby obscuring the expected relationship between psychopathology and impairment. The diagnostic heterogeneity of our mentally disordered sample may have contributed to this effect. This may explain why research on patients' understanding of treatment-related disclosures that employed conceptually related instruments and grouped subjects by diagnosis found significant inverse correlations between BPRS and performance.[18] Alternatively, our failure to find a relationship between psychopathology and impaired understanding may be an artifact of our study design that called for drawing subjects from relatively extreme groups. The range of BPRS scores within each group may have been too restricted to demonstrate the expected relationships.

The results of our study should be regarded as preliminary; however, the data do not support categorical judgments about the capacities of criminal defendants identified as incompetent to stand trial. Within this group there was a wide range of scores, including some subjects who performed within the range of non-mentally disordered defendants. Our study indicates that there is considerable overlap between mentally disordered and non-mentally disordered defendants in their ability to understand relevant material.

The overlap between competent and incompetent defendants on measures of understanding underscores the importance of the multidimensional approach to competence assessment. It appears that an assessment of the capacity to understand will not, by itself, be sufficient to inform competence determinations. The capacity to understand is but one of several abilities relevant to the assessment of competence. In addition, competence determinations may turn on the defendants' abilities to communicate a choice, to appreciate their legal situation, to manipulate information rationally, and to recognize relevant information. Presumably, incompe-

tent defendants who perform in the normal range on measures of understanding will be shown to have impairments in other capacities. For example, it may be that mentally disordered defendants in the higher ranges of understanding have problems related to appreciation based on delusional ideas about the legal process.

There are other possible explanations for the overlap between competent and incompetent defendants' performance on measures of understanding. It is possible that mentally disordered criminal defendants have been identified as incompetent on the basis of mental disorder rather than because of impaired functional abilities.[19] Alternatively, forensic evaluators may not be familiar with the range of abilities present in normal defendants and, consequently, may tend to regard less than optimal understanding as demonstrating incompetence. Finally, it may be that clinicians make judgments about competence influenced by the awareness that treatment will improve the abilities of mentally disordered defendants even though they may already perform within the normal range.

Our data shed some light on the ongoing controversy over whether there should be a separate test of defendants' competence to waive their rights.[2] We found a high correlation between defendants' capacities to understand information relevant to assisting counsel and their capacities to understand information relevant to the waiver of trial (pleading guilty) and to the waiver of jury. Thus, at least with respect to the understanding dimension, separate tests of competence would have minimal or no consequences.

Further studies employing measures of appreciation, rational thinking, and evidencing a choice in addition to understanding are necessary to explore the relationship of these capacities to one another and to clinical and legal judgments of adjudicative competence including judgments about competence to waive legal rights. Moreover, our study suggests that in order to explore the relationship of psychopathology to competence-related capacities, it will be necessary to collect data on a larger number of subjects representing a wider range of psychopathology.

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