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THE PSYCHOLOGIST AND PSYCHIATRIST IN COURT: PERCEIVED  
EXPERTNESS AND INFLUENCE

*The University of Arizona*

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THE PSYCHOLOGIST AND PSYCHIATRIST IN COURT:  
PERCEIVED EXPERTNESS AND INFLUENCE

by  
April Wursten

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A Dissertation Submitted to the Faculty of the  
DEPARTMENT OF PSYCHOLOGY  
In Partial Fulfillment of the Requirements  
for the Degree of  
DOCTOR OF PHILOSOPHY  
In the Graduate College  
THE UNIVERSITY OF ARIZONA

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THE UNIVERSITY OF ARIZONA  
GRADUATE COLLEGE

As members of the Final Examination Committee, we certify that we have read  
the dissertation prepared by April Wursten, Ph.D.

entitled THE PSYCHOLOGIST AND PSYCHIATRIST IN COURT:

PERCEIVED EXPERTNESS AND INFLUENCE

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Final approval and acceptance of this dissertation is contingent upon the  
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I hereby certify that I have read this dissertation prepared under my  
direction and recommend that it be accepted as fulfilling the dissertation  
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SIGNED: \_\_\_\_\_

*Arif Mustafa*

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## ABSTRACT

An analog study was devised to examine perceived differences between psychiatrists and psychologists in providing expert testimony on the insanity defense. The effects of issue involvement and initial attitude were also assessed. Subjects who had been exposed to the differences in training between the professionals were used. In a pilot investigation, subjects were exposed to identical testimony from a defense expert identified either as a psychiatrist or psychologist. Medical bias, as measured by the tendency to concur with the expert recommendations and endorse attitudes consistent with the M.D., was confirmed. This finding was especially strong among pro insanity defense subjects with low issue involvement. The failure to find a similar pattern among anti-insanity defense subjects with low issue involvement was thought to be an artifact of the absence of opposing testimony. The overall failure of highly involved anti insanity defense subjects to reach verdicts consistent with their initial attitudes, was also thought to result from the lack of opposing testimony.

The primary study was designed to clarify the findings of the pilot investigation and to approximate a more authentic court situation by including an opposing expert. Witness credentials were manipulated while testimony remained constant. Some subjects were exposed to the Ph.D. for the defense and M.D. for prosecution and others to the M.D. for the defense and Ph.D. for the prosecution. Medical bias was evident in this study, again measured by the tendency to follow the recommendations

of the M.D. and endorse attitudes consistent with those recommendations. Additionally, subjects tended to evaluate the psychiatrist more favorably than the psychologist. Subjects with low issue involvement were more susceptible to the influence of the medical expert. Highly issue involved subjects maintained their initial attitudes. Attitudes, issue involvement and credentials seemed to affect memory for facts of the case. In some instances, initial attitudes became stronger when mock jurors were exposed to the opposing view (polarization). Implications and limits of these findings were explored.

## INTRODUCTION

Medical professionals have been providing expert testimony on mental status for over a century. Before 1962, trial judges generally permitted only psychiatrists and medical practitioners to testify on questions of mental illness or disease, largely because of a 1954 resolution adopted by the the American Medical Association, the Council of the American Psychiatric Association and the Executive Council of the American Psychoanalytical Association which asserted that physicians were the only legitimate experts in the field of mental illness or disease (Miller, Lower, & Bleachmore, 1978). In *Jenkins vs. United States* (1962), Judge Bazelon ruled that the lack of a medical degree would not automatically bar a psychologist from testifying on the mental state of an individual. Rather, the decision on qualifications would rest with the trial judge and would depend on the extent of the proffered witness's knowledge and experience, and the probative value of his or her opinion (Perlin, 1977). Since this decision, psychologists have been increasingly used as expert witnesses, and the quantity of literature on expert testimony has increased dramatically. For example, in the last two years, two entire issues of Law and Human Behavior have been devoted to issues of psychological expert testimony, (Elwork, 1984; McCloskey, Egeth, & McKenna, 1986).



The literature on expert testimony falls broadly into three categories. The first category is conceptual-historical. Both legal and mental health writers address the developing role of mental health professionals in the legal process, (e.g. Gordon, 1976; Lower, 1978; Miller et al. 1978, Pacht, Kuehn, Bassett, & Nash, 1973, Poythress, 1977; Slovenko, 1973). Several writers have examined whether, given the state of present knowledge, mental health professionals should provide expert testimony (e.g. Ennis & Litwack, 1974; Gardner, 1976; Hays, 1981; Loftus, 1983; Ziskin, 1981) and what they accomplish when they do (e.g. Diamond, 1973, 1975; Finney, 1982; Kubie 1973; McCloskey & Egeth, 1983a, 1983b).

The second category consists of articles describing strategies that have been used by experts. These include persuasive techniques (Bank & Poythress, 1983), meeting with the attorney and anticipating the opposing attorney (Brodsky, 1977), developing courtroom orientation (Brodsky & Robey 1972), preparing a vita (Kurlychek & Heer, 1982), preparing for the "learned treatise" (Poythress, 1983) and self-presentation as an expert (Resnick & Goldberg, 1984).

An examination of these recommendations might lead the reader to expect that there has been a great deal of empirical research conducted to evaluate presentation strategies; however, this third category, which is comprised of empirical research of factors contributing to effective presentation, consists of only three articles. These examine the effects of expert testimony on jury deliberations and decisions involving eyewitness testimony, and have demonstrated that experts can affect the influence of eyewitness testimony on verdict (Hosch, Beck & McIntyre,

1980; Loftus 1980; and Wells, Lindsay & Tousingnant, 1980). Psychological expert testimony, however, is most frequently employed to provide evidence about the mental status of a defendant. Although several archival studies have examined the impact of psychiatric expert testimony on judicial findings of incompetence and have demonstrated a consistent tendency for judges to decide in accordance with expert recommendations (McGarry, 1965; Pfeiffer, Eisenstein, & Dabs, 1967; Monahan & Steadman, 1983; Roesch & Golding, 1980; Steadman, 1979), there are no published experimental investigations of the effects of mental health testimony on jury deliberations and decisions.

Two studies have been done in a related area. McGlynn and Dreilinger (1981) investigated mock jurors' responses to the insanity plea with two levels of evidential incrimination and three levels of insanity (provided in a psychological profile). They found that when there was a great deal of incriminating evidence and the defendant's valid psychological profile showed him to be insane, subjects were left with competing values: "the guilty deserve punishment" vs. "the insane need treatment". They resolved this conflict by utilizing incriminating evidence and devaluing evidence on insanity. Subjects were unable to separate the issues of guilt and insanity. Specifically, the more apparent the guilt of the defendant, the more likely jurors were to find the defendant guilty, regardless of the amount of evidence about insanity. In the second study, Hans and Slater (1983) also found that people tended to confuse issues of guilt and insanity, noting that over half (54%) of their sample who would have found the defendant not guilty

by reason of insanity (NGRI) also thought he should be punished. Though these studies provide some information concerning factors that influence the effectiveness of an insanity defense, they do not address the expert's role in mediating those factors. The present studies have been designed as a step toward rectifying this situation.

The first question addressed by these studies is whether psychiatrists are perceived as more credible than psychologists in providing mental health testimony. Credibility is enhanced when the communicator holds a position of leadership (Hovland, Janis and Kelley 1953) or status (Berlo, Lemert, & Mertz 1966). More importantly, enhanced credibility (perceived expertness) may increase the value or appeal of a communicator's message (e.g., Mills & Harvey, 1972). In view of the relatively recent involvement of psychologists in providing expert testimony and laws which still discriminate against psychologists (Dillon & Wildman 1979; Dix & Poythress, 1981; Sobel 1978, 1979) it seems that psychiatrists are still viewed as having more prestige and influence than psychologists.

Recent evidence, however, suggests that this disparity may be changing. Both anecdotal information and research studies have challenged the assumption that medical professionals are either better trained or better able to perform forensic evaluations than nonmedical professionals (Dix & Poythress 1981, Petrella & Poythress, 1983). Resnick and Goldberg (1984) note that a treating psychologist usually has more credibility than a non-treating doctor. Wursten and Sales (1986), in a study of expert testimony in a state legislature, found a tendency

to confuse psychological credentials with psychiatric ones, suggesting perhaps that subjects were not familiar with the training and practice differences between psychologists and psychiatrists. Similarly, Webb and Speer (1986) found that subjects had a favorable attitude toward psychologists and viewed them as very similar to psychiatrists, but questioned whether their sample was familiar with psychologists. Finally, a 1984 federal congressional decision granted psychologists parity with psychiatrists in imparting expert testimony on insanity and competence.

Only two studies have actually compared psychologists and psychiatrists in a legal context. Poythress (1983) found that among trial judges, there was still a medical bias. Swenson, Nash, and Roos (1984), however, in a simulated child-custody case, found that psychologists and social workers were perceived as more credible than psychiatrists. This may have occurred because the area of dispute is one in which psychologists and social workers have historically established expertise. Neither of these studies, however, incorporated behavioral measures to determine whether reported attitudes have bearing on subjects' behaviors, an issue that psychologists have repeatedly confronted. Additionally, since the insanity defense has traditionally been the province of medical professionals, the question of whether psychiatrists are perceived as more credible than psychologists in providing testimony about mental status remains open.

Evidence of credibility is apparent when a communicator convinces subjects to change their opinion, to behave consistently with his or her

recommendations, to endorse attitudes consistent with his or her message, or to evaluate him or her favorably. Research using persuasion as a dependent variable, however, has demonstrated that characteristics of the communication recipient also affect how much influence a communicator has. For example, the size of the discrepancy between the communication and the receiver's initial beliefs has a significant effect on persuasion. Early research suggested that increases in discrepancy between the communication and the receiver's initial beliefs would result in increased attitude change (Cohen, 1959; Hovland & Prizker, 1957; Zimbardo, 1960). Other investigators found evidence that as discrepancy increased, so did resistance to change (Fisher & Lubin, 1958; Hovland, Harvey & Sherif, 1957). The investigation by Hovland, Harvey and Sherif delineated factors which influenced whether or not change would occur. They found that when a communication was outside of the "latitude of acceptance", i.e. was so different from the client's initial values that it was totally incompatible, the communication would be rejected. In this instance, bias precluded change. Aronson, Turner, and Carlsmith (1963) found that when a communication was discrepant from the receivers' attitudes and attributed to a highly credible source, attitude change was enhanced. When the same communication was attributed to a source of only moderate credibility, however, attitude change was facilitated only to a point. Beyond that point, as discrepancy became more extreme, the degree of opinion change decreased. But when a highly discrepant message was communicated by an individual with only moderate credibility, attitude change did not occur. This suggests that it may be important to

consider the initial attitudes of the jurors toward the issues addressed in the expert's testimony.

In some instances, particularly when two sides of an issue are presented (as would be expected in a court of law), initial attitudes may be strengthened rather than modified or reversed. Lord, Ross, and Lepper (1979) found that when subjects with strong beliefs were exposed to two sides of an issue, they tended to accept confirming evidence at face value while subjecting disconfirming evidence to close scrutiny.

Subsequently, subjects remembered disconfirming evidence, which, when interpreted in a biased manner, could be used to confirm subjects' initial beliefs.

Petty, Cacioppo, and Goldman (1981) suggested another factor that may mediate the influence of the communicator or communication, e.g., personal involvement in an issue. They found that when a message was highly personally relevant, attitudes were influenced mainly by the quality of arguments, and subjects used the "central" or informational route to decision making. When the message was of low personal relevance, however, subjects were influenced by the characteristics of the communicator and therefore used the "peripheral route" to decision making. Similarly, Chaiken (1980) found that subjects who were involved in an issue were more likely to focus on informational aspects of the communication, while subjects who were not involved were more likely to use "heuristics" such as communicator characteristics. These studies suggest that any medical bias may be found only for individuals low in personal involvement with the case or issues presented.

Involvement, like attitude, can affect memory. Wyer and Frey (1983) suggested that under conditions of extreme personal involvement, a person may need to thoroughly process information and will remember attitude inconsistent arguments because of his or her need to refute them.

With respect to witness evaluations, two factors, expertise and trustworthiness, consistently emerge as factors underlying credibility. Expertise refers to the extent that the communicator is capable of making correct assertions, and is comprised of relatively objective factors such as perceived skillfulness, training, and knowledgability. Trustworthiness refers to the degree to which an audience perceives those assertions to be valid (Hovland, Janis, & Kelley, 1953) and is comprised of such factors as perceived motives (Walster, Aronson, & Abrahams, 1966) and predictability or one's ability to rely on the integrity of a person (Giffin, 1967). Although there has been considerable research on credibility, to date, comparative credibility of psychiatrists and psychologists as it relates to the insanity defense has not been assessed in a court setting.

To obtain baseline data for the present study, Wursten (1986) performed a pilot study to determine whether M.D. or Ph.D. expert witnesses are more influential or are perceived differently. In addition, it included a replication of the Lord et al. study.

Subjects were selected from undergraduate psychology classes to assure that they had been exposed to the differences between M.D.'s and Ph.D.'s. Their initial attitudes toward the insanity defense were

assessed. Subsequently, they were asked to read a court case involving the insanity defense in which an expert witness (identified in some cases as a psychiatrist and in some cases as a psychologist) testified that the defendant was not guilty by reason of insanity. Behavioral measures, whether the subject's verdict was different from that which would follow from initial feelings; attitude measures, whether the subjects' beliefs toward the insanity defense became more like those advocated by a particular witness, and how each witness was perceived; and cognitive measures, whether the subject remembered more information dependant on the witness to which they were exposed, were used.

The following hypotheses were offered:

1. There will be an overall medical bias.
  - a. Subjects will tend to follow recommendations of the medical expert more frequently than the nonmedical expert.
  - b. Subjects will be more certain of decisions that are in accordance with the recommendations of the medical expert.
  - c. Attitudes toward the insanity defense will be consistent with those of the medical expert.
  - d. The medical expert will be perceived as more credible (expert and trustworthy) than the nonmedical expert.



2. Expert bias will be mediated by initial attitude and involvement.
  - a. Biased subjects with high involvement will make decisions and endorse factors consistent with initial attitudes, regardless of the expert to whom they are exposed.
  - b. Biased subjects with high involvement will be certain of their opinion, regardless of the expert to whom they are exposed.
  - c. Biased subjects with high involvement will remember more attitude incongruent facts and fewer attitude congruent facts.
  - d. Biased subjects with low involvement will show more M.D. bias.
  - e. Biased subjects with low issue involvement will remember more facts presented by the M.D.

The procedures employed and findings derived from the pilot investigation are described in detail to establish a framework for the present study.

### Subjects

A preliminary screening device, the Legal Issues Questionnaire (LIQ), was administered to over 600 undergraduate students at a large public university. This questionnaire was developed by the investigator to identify individuals with strong opinions favoring or opposing the insanity defense. 30 subjects with strong beliefs about the insanity defense (15 for and 15 against) were selected on the basis of their score on a factor derived from the LIQ. An additional 58 subjects volunteered to participate. All subjects received extra credit for participating.

### Procedure

Subjects attended experimental sessions in groups of 5-25. They were instructed that they would be participating as jurors in a jury study, and admonished to remember that juror decisions are extremely important and would affect the life of the accused if they were actually in a courtroom. They were informed that they would be asked to read a case, provide a verdict on the case, and answer questions about how they made their decisions. They were also informed that they would be required to take a memory test at the end of the experiment.

At the beginning of the session, subjects were given a written form which contained questions like actual jurors might encounter in a voir dire. Three questions which would assess their opinion of the insanity defense, and one regarding how strongly they felt about the issue were included. Subsequently, they were asked to read a 19 page

testimony transcript modeled after an actual case. Finally, they selected verdicts and estimated how certain they were of the verdicts, rated all witnesses on 10 items related to credibility, responded to the "Insanity Defense Opinion Survey", an instrument which assessed feelings toward the insanity defense, responded to a "Credibility Opinion Survey" an evaluation of psychiatrists and psychologists in general, and took a memory test in which were embedded several items relating to a defense or prosecution bias.

### Independent Variables

#### Original Opinion

To establish the original opinion, 50 protocols were randomly selected from the pool of 600 Legal Issues Questionnaires. A principle components factor analysis was performed employing varimax rotations using an eigenvalue = 1 as the criterion to determine whether insanity defense related questions comprised a specific factor. The factor which emerged was composed of the following five questions:

1. If I had been a juror when John Hinckley Jr. was tried for the attempted assassination of President Reagan, I would have advocated he be punished rather than treated for mental illness.
2. The insanity defense is a ploy used by attorneys to let the guilty go free.
3. A person who is severely mentally ill should not be held legally responsible for criminal acts that result from his or her mental illness.

4. The insanity defense is always used to let the guilty go free.  
It should therefore be abolished.

5. John Hinckley Jr., President Reagan's attempted assassin,  
should not have been found not guilty by reason of insanity.

A Cronbach's alpha of .74 was obtained for these items indicating high reliability. Since each question was answered on a 7 point likert type scale ranging from strongly agree to strongly disagree, there was a total possible score of 35 for these items. Subjects who scored over 22, and under 13 (a standard deviation above and below the mean, respectively) were contacted and asked to participate in the study. Initial opinions of all prospective jurors were then reassessed during the voir dire. A 9 point semantic differential-type scale with the following poles was used:

1. The insanity defense should be abolished vs. The insanity defense should be used more often.
2. The insanity defense is usually a ploy used by attorneys to let the guilty go free vs. The insanity defense is usually used appropriately to protect the welfare of the insane.
3. People who commit criminal acts because they are insane should be treated then punished vs. People who commit criminal acts because they are insane should be treated not punished.

These items comprised the attitude measure used in the data analysis.

### Issue Involvement

In the initial questionnaire, subjects provided information about how important the issue was for them. The question used was a 9 point scaled question with the following poles: The issue is not important to me; I don't care one way or the other vs. I feel very strongly about this issue.

### Credentials

Subjects were exposed to identical facts and testimony regarding the alleged crimes of burglary and assault. The titles of the experts, however, were changed, and the differences in their training and qualifications were highlighted by the opposing attorney. For example, "Dr. Brown" testified for the defense as a psychiatrist for some groups of subjects and as a psychologist for the others. For the psychologist, absence of medical training was emphasized. (See Appendix A).

### Dependent Variables

#### Verdict

This was a gross measure of the influence of the expert's testimony. Subjects were asked to choose between innocent, guilty, and not guilty by reason of insanity.

### Certainty of Verdict

This was a 9-point scaled question anchored at "not at all certain" and "positive". It was designed to assess the perceived power of credibility differences in influencing jurors' certainty concerning their final decision.

### "Insanity Defense Opinion Survey" IDOS

This was an investigator-designed four item likert-type scale used to assess beliefs about the insanity defense following exposure to the case. (See Appendix B).

### Witness evaluation forms

These were ten item investigator-designed semantic differential scales used to rate the witnesses. They helped explain the decisions reached and provided additional information on perceived differences between psychologists and psychiatrists. (See Appendix C).

### "Credibility Opinion Survey" (COS)

This was an investigator-designed four item likert-type scale used to assess attitudes toward psychiatrists and psychologists as they are generally perceived. (See Appendix D).

### Recalled items

This was a 25-item true/false test devised to assess memory for the case. (See Appendix E). Embedded in the test were seven defense-related questions and five prosecution-related questions. (Only

three of the prosecution items were scored during the preliminary investigation because there was no prosecution witness).

#### Data Analysis

Because verdict was a categorical measure, the investigator conducted a hierarchical log linear analysis to determine whether exposure to the M.D. or Ph.D. had a significant affect on verdict. Certainty of verdict was measured on a likert-type scale. Therefore, an ANOVA could be performed to determine whether exposure to the M.D. or Ph.D. resulted in subjects being sure of their decisions.

Both the IDOS and COS included four separate items. To collapse the data, factor analyses were conducted in both cases. Subsequently, factor scores were analyzed by ANOVA's.

The Witness Evaluation Forms consisted of ten items related to the factors of trustworthiness and expertise. Because these factors are consistently documented as underlying credibility, they were derived conceptually, and a Chronbach's Alpha was performed to ascertain high reliability. Subsequently, ANOVA's were performed to ascertain whether M.D.'s and Ph.D.'s are perceived differently.

Finally, since the number of recalled items, defense items, and prosecution items correct were scored on an interval scale, ANOVA's were used to determine whether exposure to a specific witness would enhance memrry for attitude consistent or inconsistent information.

### Findings

Medians were determined for attitudes and issue involvement to create dichotomous categories (pro vs. anti, low vs. high).

Subsequently, a 2 (attitude pro or anti-insanity defense) x 2 (issue involvement high or low) x 2 (psychologist defense only, psychiatrist defense only) log linear analysis was performed which yielded partial chi squares. Subjects who stated that the accused was innocent were discarded as there were too few to provide meaningful data (one or two in each condition). This process was repeated for both charges.

For the burglary charge, a main effect was found for verdict,  $X^2 (1, N = 85) = 6.302, p < .02$ , with significantly more subjects finding the defendant not guilty by reason of insanity (NGRI) than guilty (see Table 1). In support of the attitude categorization, an interaction was found for verdict and attitude,  $X^2 (7, N = 85) = 7.028, p < .01$  (see Table 2). Subjects who opposed the insanity defense used the guilty verdict as frequently as the NGRI verdict, while those who favored it tended to find the defendant NGRI. There was also a significant interaction for condition by attitude by verdict,  $X^2 (7, N = 85) = 5.557, p < .02$  (See Table 3). For the pro-insanity defense subjects, the M.D. was more persuasive than the Ph.D. In fact, a significantly higher number of NGRI than guilty verdicts was found only when subjects who favored the insanity defense were exposed to the M.D.'s testimony,  $X^2 (1, N = 23) = 15.70, p = .001$ . By contrast, for the anti-insanity defense subjects, Ph.D. and M.D. were equally influential. Additionally, there was a spurious interaction for condition by issue involvement by attitude which



must have been due to chance because the independent variable was randomly assigned. This is not of particular interest because it does not involve the verdict. Finally, there was a four-way interaction between condition, verdict, issue involvement, and attitude,  $\chi^2 (15, N = 85) = 5.867, p < .02$  (see Table 4). All subjects who were pro-insanity defense, but were not highly issue involved, followed the NGRI recommendations of the M.D., but only half followed the same recommendations when made by the Ph.D. In the other conditions, the Ph.D. and M.D. were approximately equally influential.

Table 1. Total Subjects by Verdict

	<u>VERDICT</u>	
	Guilty	NGRI
<u>CHARGE</u>		
Burglary	31	54
Assault	29	49

Table 2. Total Subjects: Verdict by Attitude

<u>CHARGE</u>	VERDICT	<u>ATTITUDE</u>	
		Anti	Pro
Burglary	Guilty	20	11
	NGRI	19	35
Assault	Guilty	19	10
	NGRI	16	33

Table 3: Total Subjects: Condition by Attitude by Verdict  
Interactions for Both Charges

<u>CHARGE</u>	ATTITUDE	VERDICT	<u>CONDITION</u>	
			Ph.D.	M.D.
Burglary	Anti	Guilty	9	11
		NGRI	11	8
	Pro	Guilty	9	2
		NGRI	14	21
Assault	Anti	Guilty	7	12
		NGRI	11	5
	Pro	Guilty	5	5
		NGRI	15	18

Table 4. Burglary Verdict: Total Subjects Grouped by Condition, Issue Involvement, Attitude and Verdict

ATTITUDE: ISSUE INV:		CONDITION							
		Ph.D.		M.D.		Anti		Pro	
		High	Low	High	Low	High	Low	High	Low
VERDICT									
Guilty		6	3	2	7	3	8	2	0
NGRI		7	4	6	8	2	6	8	13

For the assault charge, a main effect was found for verdict,  $X^2$  (1, N = 78) = 5.186,  $p < .03$ , again with subjects finding the defendant NGRI more frequently than guilty (See Table 1). An interaction was found for verdict and attitude,  $X^2$  (7, N = 78) = 8.443,  $p < .005$  (see Table 2). As with the burglary verdict, those who opposed the insanity defense were as likely to find the defendant NGRI as guilty, while those who favored the insanity defense more consistently found the defendant NGRI. There was also a trend toward an interaction for condition by attitude by verdict,  $X^2$  (7, N = 78) = 3.287,  $p < .07$  (See Table 3). Pro-insanity defense subjects were likely to find the defendant NGRI regardless of the expert witness to whom they were exposed. Though there appeared to be a slight Ph.D. bias when subjects opposed the insanity defense (as measured by influence on verdict), this was not statistically reliable. There was no evidence for an M.D. bias on the assault verdict. As with the burglary verdict, due to random assignment into conditions, there was

a significant spurious interaction for condition by issue involvement by attitude.

Because certainty had a different meaning depending on whether the subject was certain the defendant was guilty or NGRI, certainty was analyzed separately for subjects who chose guilty vs. NGRI. ANOVA's were performed on the certainty measure by verdict, however, there were no significant effects.

A principle components factor analysis employing varimax rotations using an eigenvalue = 1 as the criterion was performed on the IDOS to determine factors comprising attitudes toward the insanity defense. Two factors emerged, which can be conceptualized as 1) Punish the offender regardless of mental illness (punishment); 2) Use the insanity defense when the defendant is mentally ill (special handling). Subsequently, a 2 (attitude pro vs. anti) x 2 (issue involvement low vs. high) x 2 (Ph.D. vs. M.D.) factorial ANOVA was performed for each factor to determine whether the expert's testimony altered attitudes toward the insanity defense. For the punishment factor, a main effect was found for attitude with anti-insanity defense subjects endorsing the punitive factor. This supported categorization into pro vs. anti,  $F(1, 79) = 23.887$ ,  $p < .0001$  (see Table 5). There was also a trend toward a three-way interaction between condition, issue involvement, and attitude,  $F(1, 79) = 3.386$ ,  $p = .07$  (see Table 6). For most subjects, exposure to the M.D. resulted in their having a less punitive attitude. For highly issue involved pro-insanity defense subjects, however, exposure to the Ph.D. resulted in their having a less punitive attitude. For the special

handling factor, again there was a main effect for attitude,  $F(1, 80) = 22.585$ ,  $p < .0001$  (see Table 5), with pro-insanity defense subjects scoring as more in favor of special handling. There was also a two-way interaction for condition by issue involvement,  $F(1, 80) = 4.169$ ,  $p < .05$  (see Table 7). Subjects with low issue involvement who were exposed to the Ph.D. were less supportive of providing special handling for the insane than subjects in other conditions.

Table 5. Means and Standard Deviations for the Two Types of Factors on Insanity Beliefs, Grouped by Attitude

	<u>ATTITUDE</u>			
	<u>Anti</u>		<u>Pro</u>	
	Mean	SD	Mean	SD
Punishment	4.95	2.60	8.00	3.17 (low = more punitive)
Special Handling	9.48	3.15	6.46	2.97 (low = advocates special handling)

Table 6. Means and Standard Deviations on Attitude toward Punishment Factor Grouped by Condition (Ph.D. or M.D.), Attitude, and Issue Involvement

<u>ISSUE INVOLVEMENT</u>		<u>CONDITION</u>			
		<u>Ph.D.</u>		<u>M.D.</u>	
		Mean	SD	Mean	SD
<u>ATTITUDE</u>					
Anti	Low	4.43	2.50	5.93	2.87
	High	3.86	1.88	6.00	3.02
Pro	Low	7.07	2.67	8.47	2.26
	High	9.88	4.58	7.10	3.31

Note: Low = more punitive.

Table 7. Means and Standard Deviations on Special Handling Factor Grouped by Condition and Issue Involvement

	CONDITION			
	Ph.D. Mean	SD	M.D. Mean	SD
<u>ISSUE INVOLVEMENT</u>				
Low	8.41	3.33	7.59	3.45
High	7.64	3.51	7.73	3.41

Note: Low advocates special handling of insane

To determine whether attitudes toward the Ph.D. and M.D. who testified were different, the semantic differential scales were theoretically divided into the two factors most frequently associated with credibility; trustworthiness and expertise. Cronbach's Alphas of .75, for the trustworthiness factor and .74 for the expertise factor were obtained, indicating high reliability. ANOVA's were performed for each factor, but with no significant findings.

To determine if there were differences between the way the specific witnesses were perceived and attitudes toward M.D.'s and Ph.D.'s in general, a principle components factor analysis was performed on the COS employing varimax rotations using an eigenvalue = 1 as the criterion to derive two credibility factors, one which indicated an M.D. bias and the other, a Ph.D. bias. ANOVA's were performed on factor scores grouped by condition, issue involvement, and attitude. For factor 1, comprised of statements in which M.D.'s were mentioned first and which stated that M.D.'s are better qualified than Ph.D.'s for diagnosis, treatment, and

testimony, there were no significant effects, and the overall mean was near 9 (the midpoint), suggesting no bias. However, for factor 2, comprised of statements in which Ph.D.'s were mentioned first and which stated that Ph.D.'s are better qualified to testify, and if an expert were needed to treat a relative, the subject would prefer a Ph.D., all means were over 9 indicating disagreement (a medical bias). The only effect which approached significance was a trend toward an interaction between condition, attitude, and issue involvement,  $F(1, 79) = 3.36$ ,  $p = .07$  (see Table 8). Though all subjects tended to rate the Ph.D. lower than the M.D., highly issue involved pro-insanity defense subjects who were exposed to the Ph.D. testifying for the defense, tended to discount Ph.D.'s the most.

Table 8. Means and Standard Deviations for Ph.D. Factor Scores:  
Condition by Attitude by Issue Involvement

ISSUE INVOLVEMENT		CONDITION			
		Ph.D.		M.D.	
		Mean	SD	Mean	SD
<u>ATTITUDE</u>					
Pro	Low	10.20	4.00	12.00	3.57
	High	12.63	3.81	10.11	2.76
Anti	Low	12.43	3.05	11.00	2.48
	High	10.93	4.68	11.20	3.52

Note: < 9 = Pro Ph.D. Bias

Finally, to assess factual memory for the case, the number of memory items answered correctly was scored. A 2 (Ph.D. vs. M.D.) by 2 (attitude anti vs. pro), by 2 (issue involvement low vs. high) factorial

ANOVA was performed to assess the effects of the independent variables on the numbers of items recognized. There were no significant effects.

Embedded in the memory test were seven pro defense items. When the number of correct defense items were totaled and analyzed by ANOVA (with the same grouping factors), there was a trend toward an interaction between attitude and issue involvement on defense memory.  $F(1, 80) = 3.338$ ,  $p = .07$  (See Table 9). Anti-insanity defense subjects of low issue involvement remembered the fewest facts, while pro-insanity defense subjects of high issue involvement remembered the most facts. There was a significant effect for condition by attitude by issue involvement,  $F(1, 80) = 3.951$ ,  $p = .05$  (See Table 10). In the M.D. condition, pro-insanity defense subjects remembered the most facts when they were weakly issue involved and fewest facts when they were highly issue involved. In the other conditions, issue involvement had no reliable effect on memory for facts.

Table 9. Means and Standard Deviations for Total Defense Items Correct Grouped by Attitude and Issue Involvement

<u>ISSUE INVOLVEMENT</u>	<u>ATTITUDE</u>			
	<u>Anti</u>		<u>Pro</u>	
	Mean	SD	Mean	SD
Low	5.81	.80	6.37	.99
High	6.05	.87	5.89	.93



Table 10. Means and Standard Deviations for Total Defense Items  
Correct Grouped by Condition, Attitude, and Issue Involvement

<u>CONDITION</u>	<u>ATTITUDE</u>							
	<u>Anti</u>				<u>Pro</u>			
	<u>Ph.D.</u>	<u>M.D.</u>	<u>Ph.D.</u>	<u>M.D.</u>	<u>Ph.D.</u>	<u>M.D.</u>	<u>Ph.D.</u>	<u>M.D.</u>
<u>ISSUE INVOLVEMENT</u>	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Low	5.86	.38	5.79	.80	6.20	.84	6.53	.64
High	6.00	.68	6.20	1.01	6.38	1.06	5.50	.85

Finally, to assess prosecution memory for the case, the number of prosecution items answered correctly was scored and a 2 x 2 x 2 factorial ANOVA using the same grouping factors was performed. The only significant effect was a three-way interaction for condition by issue involvement by attitude,  $F(1, 80) = 4.711$ ,  $p < .05$  (See Table 11). When subjects were exposed to the M.D., highly issue involved pro-insanity defense subjects remembered most prosecution facts, while weakly issue involved pro-insanity defense subjects remembered fewest prosecution facts.

Table 11. Means and Standard Deviations for Total Prosecution Items  
Correct Grouped by Condition, Attitude, and Issue Involvement

<u>CONDITION</u>	<u>ATTITUDE</u>							
	<u>Anti</u>				<u>Pro</u>			
	<u>Ph.D.</u>	<u>M.D.</u>	<u>Ph.D.</u>	<u>M.D.</u>	<u>Ph.D.</u>	<u>M.D.</u>	<u>Ph.D.</u>	<u>M.D.</u>
<u>ISSUE INVOLVEMENT</u>	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Low	1.86	.85	2.21	.80	1.80	1.01	1.47	.64
High	2.00	.68	1.80	.84	1.75	1.04	2.50	.85

### Implications for Current Study

Consistent with the hypothesis, the data provided some support for an M.D. bias, as measured by the tendency to follow M.D. recommendations, to evaluate M.D.'s as more credible, and to endorse attitudes represented by the M.D. Nevertheless, there seemed to be some reluctance on the parts of the subjects to overtly acknowledge this bias. Specifically, for the factor comparing the experts which was comprised of statements in which the M.D. was mentioned first, there was no reported M.D. bias regarding qualifications or training for diagnosis, testimony, and treatment. However, for the factor comprised of statements in which the Ph.D. was mentioned first and including an item asking subjects whether they would prefer a Ph.D. over an M.D. for treating a relative, (a question which implied direct consequences for the subject's family) subjects indicated they would prefer an M.D. It is not clear whether mentioning the Ph.D. first or asking a question eliciting personal involvement brought out the M.D. bias. With respect to the court case, this medical bias also affected behavior, attitude, and cognition depending on whether subjects were anti or pro-insanity defense and were of high or low issue involvement.

An M.D. bias was suggested by the finding that pro-insanity defense subjects were more likely to choose verdicts congruent with the recommendations of the M.D., especially when they were of low issue involvement. Among anti-insanity defense subjects, however, the M.D. and Ph.D. were equally persuasive, and on the assault verdict, there appeared

to be a slight trend toward a Ph.D. bias among anti-insanity defense subjects.

On other measures, the M.D. bias was somewhat clearer. Among weakly issue involved subjects, exposure to the Ph.D. resulted in their being less favorable to special handling of the insane than when they were when exposed to the M.D. Highly issue involved anti-insanity defense subjects were much more punitive when exposed to the Ph.D.'s defense testimony as opposed to the M.D.'s. Their strong response to the Ph.D. on the punishment factor appeared to be a reaction to having a less credible source advocate an unacceptable position. Not only did exposure to the Ph.D. fail to modify their attitude toward punishment, exposure to his testimony seemed to intensify their initial attitude. Subjects exposed to the M.D. testifying for the defense were less punitive, than those exposed to the Ph.D. unless they already were highly issue involved and favored the insanity defense. Then, exposure to the Ph.D. resulted in subjects being least punitive. While this could be construed as a Ph.D. bias, a close examination of the credibility evaluation measure revealed that these same subjects discounted Ph.D.'s, as if to communicate that their opinion had nothing to do with the witness to whom they had been exposed.

Overall, this investigation provided only limited support for an M.D. bias. Though it is possible to speculate about why this bias is evident in some conditions and not in others, the pattern of findings is not sufficiently complete to make definitive statements about it. In this preliminary investigation, the experimenter selected a method which

utilized only one witness and left the experimenter to determine whether subjects really had an M.D. bias. A replication of this investigation, in which each subject would be asked to compare Ph.D.'s and M.D.'s, might help clarify the issue of medical bias.

As hypothesized, issue involvement affected how mock jurors dealt with the case. Contrary to the hypothesis, however, high issue involvement was not associated with increasing certainty of verdict. Weakly issue involved subjects, however, were somewhat more susceptible to the influence of credentials on verdict, supporting the hypothesis that peripheral or heuristic information may become more important to decision making when subjects are not highly involved (Chaiken, 1980; Petty, Caccioppo, & Goldman, 1981).<sup>1</sup> Issue involvement also mediated how subjects responded to experts on the IDOS punishment factor. Among highly involved subjects, exposure to the Ph.D. resulted in extreme attitudes; most punitive for anti-insanity defense subjects, least punitive for pro-insanity defense subjects. A similar finding was observed on the Ph.D. factor in the general M.D. and Ph.D. evaluations. Highly involved pro-insanity defense subjects discounted Ph.D.'s most when exposed to the Ph.D.

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1. Though previous studies have used manipulations of personal involvement rather than measures of issue involvement, it was suggested that issue involvement may reflect deeply held convictions which have had time to become assimilated into the subject's self-image and core beliefs. For example, issue involvement in pro-insanity subjects may be integrated into a deep belief structure including such factors as "capital punishment is wrong", and "criminals should be rehabilitated". Hence, evidence which calls a specific belief into question may threaten this whole belief structure which comprises part of the self image. This hypothesis requires further investigation.

Finally, issue involvement mediated how exposure to the M.D. affected memory, with weakly issue involved pro-insanity defense subjects remembering most defense and least prosecution facts and highly issue involved pro-insanity defense subjects remembering least defense and most prosecution facts.

Attitudes and involvement appeared to mediate how credibility influenced memory. Pro-insanity defense subjects exposed to the M.D. remembered the most defense and fewest prosecution facts when they were weakly issue involved and the fewest defense and most prosecution facts when they were highly issue involved. When a subject is highly issue involved, a highly credible source advocating a position congruent with the subjects attitude may be sufficient justification for holding a particular position. Under these circumstances, subjects may have more energy left to consider the opposing arguments and therefore, remember more prosecution facts. This lends support to the observations of Lord, Ross and Lepper (1979) that subjects accept confirming evidence at face value (without thinking about it) while subjecting "disconfirming" evidence to critical evaluation, hence remembering it better. Additionally, Wyer and Frey (1983) would suggest that highly involved subjects may better remember opposing facts in order to refute them and justify their position. Using the same reasoning, when a more credible witness advocates a less tenable position, witness credentials may increase the subject's motivation to examine and remember what the expert says and decrease motivation to remember contrary information.

This investigation also provides some support for the hypothesis about attitudes. Consistent with the findings of Lord et al., (1978), these subjects, who were exposed to the same information, examined it in a biased manner and used it to confirm or polarize their initial beliefs. Pro-insanity defense subjects provided verdicts which were consistent with initial attitudes, while anti-insanity defense subjects provided an equal number of NGRI and guilty verdicts. Attitudes toward special handling and punishment were also consistent with initial beliefs. Sometimes, depending on subject involvement and witness credentials, these attitudes became even stronger (polarization-effect).

This investigation began with the general hypothesis that regardless of initial attitude, credentials would be a more salient persuasive factor for subjects with low issue involvement. As previously noted, this hypothesis finds some support in these data. Among pro-insanity defense subjects with low issue involvement, the M.D. was more persuasive. Among anti-insanity defense subjects with low issue involvement, however, Ph.D.'s and M.D.'s exerted equal influence on verdict. This latter finding does not support the hypothesis, and suggests the need to reflect on why it occurred. One possibility is that the hypothesis was incorrect. Though this is possible, the devaluing of Ph.D.'s in general suggests that credentials did have significant impact. The additional observation that among highly issue involved anti-insanity defense subjects, there were no differences in responsiveness to Ph.D.'s and M.D.'s on verdict or the punishment factor, suggests an alternative interpretation. For anti-insanity defense subjects, whichever witness

they were exposed to contradicted their beliefs. As a consequence, they may have been forced to think more about content or to counterargue. Thus, regardless of how issue involved subjects may have been, more cognitive processing was probably demanded, leading them to use the central (informational) rather than peripheral route to decision making. Therefore, credentials of witnesses may have had no effect.

Contextual factors also created differences in behavioral responses. Specifically, the pattern of results was somewhat different for the assault verdict than for the burglary verdict. For this verdict, the experts were equally influential in all conditions. There are at least two possible explanations. First, it may have been that assault incident seemed less crazy (a response anyone would have had if they had been attacked, as represented in the case). Hence, it was easier to find the defendant innocent. This notion finds limited support in these data as we eliminated seven more subjects in the assault analysis than the burglary analysis because they used innocent as a verdict. Additionally, when the experimenter inquired about subjects' use of the innocent verdict, subjects indicated that the defendant's behavior was viewed as self-defense given that the plaintiff had attacked him. Clearly, there is insufficient data to confirm this hypothesis. An alternative possibility is that the assault charge was more violent, thus resulting in the confounding of guilt and insanity. This hypothesis was suggested by McGlynn and Dreilinger (1981) who found that when a defendant was insane but also committed a violent crime, subjects tended to find him or her guilty regardless of evidence bearing on insanity.

This hypothesis would be supported by a greater number of guilty than NGRI verdicts for the assault charge. Though the ratio of guilty to NGRI verdicts is slightly higher for the assault charge than for the burglary charge, there is also insufficient support for this explanation.

Given that the defense position was strong while the prosecution position was extremely weak, and given that all instructions to the mock jurors admonished them to base their decision on whether the defendant had the requisite intent to commit the crime, it is startling that there were so many findings of guilty even among highly issue involved pro-insanity defense subjects. This raises a significant question about whether the subjects were able to comprehend and utilize the instructions and information they received.

In this investigation, consistent with the hypotheses, there seemed to be a medical bias that, in some conditions affected subject behavior, attitudes, and cognitions. It was also apparent that initial attitude affected receptivity to the arguments of witnesses. There was some evidence to support the hypothesis that low issue involvement leaves subjects more susceptible to being influenced by credentials than high issue involvement, and that under some circumstances, anti-insanity defense subjects with high issue involvement may actually take a more extreme stance against the communicator's position in response to the less credible expert. Finally, persuasion seemed to be possible regardless of attitude or issue involvement strength, for even among highly involved anti-insanity defense subjects, there were as many NGRI as guilty verdicts.



This preliminary investigation, like most persuasion and source credibility studies, has extremely limited generalizability, however, for it is rare that subjects are exposed to only one set of arguments--especially in court. The present study is designed to address this concern, to clarify how issue involvement affects susceptibility to witness credentials and to begin to examine the M.D.'s initial advantage in the "battle of the experts".

There are, no doubt, additional limitations on the interpretation of these data imposed by both method and subjects. However, they will be addressed following the current investigation because some of those limitations will be modified and some will apply to both the pilot investigation and the current study.

The present study addresses three issues raised by the pilot investigation. First, in the data from the pilot investigation, a medical bias was evident among low issue involved pro-insanity defense subjects, but not low issue involved anti-insanity defense subjects. The addition of a prosecution witness in the present study was expected to reduce the need for low issue involved anti-insanity defense subjects to focus on information and to counterargue, thereby increasing the probability that they would also demonstrate a medical bias.

Second, the verdict measure in the pilot investigation did not differentiate among low and high issue involved anti-insanity defense subjects. Both groups provided equal numbers of guilty and NGRI verdicts. Addition of a prosecution witness was expected to facilitate

the tendency for high issue involved anti-insanity defense subjects to reach verdicts consistent with their initial attitudes.

Finally, in a court of law there is always more than one side to an issue. Therefore, in order to determine if any of the findings of the pilot investigation might generalize to the courtroom, it was necessary to evaluate the hypotheses when an opposing expert was present.

The hypotheses for the current investigation are the same as for the pilot investigation.

## METHOD

The method for the present study is identical to that for the pilot investigation (see pages 11 - 16) except that subjects were asked to read a 23 page condensed testimony transcript which included expert testimony both for the prosecution and defense (see Appendix A). In the first condition, subjects were exposed to the Ph.D.'s testimony for the defense and the M.D.'s testimony for the prosecution. In the second condition, subjects were exposed to the M.D. for the defense and the Ph.D. for the prosecution. Care was taken to assure that the credentials for each witness were approximately equal; specifically, both experts had been in practice for 15 years, both had published extensively, and both had graduated from Ivy League universities. Except during the voir dire when specific training differences were highlighted for Ph.D.'s and M.D.'s, the testimony was identical.

## RESULTS

To test the effect of the expert's credentials on subjects' verdicts, medians were determined for attitudes and issue involvement to create dichotomous categories (attitude pro vs. anti, issue involvement low vs. high). Subsequently, a 2 (attitude) x 2 (issue involvement) x 2 (condition, psychologist defense/psychiatrist prosecution vs. psychiatrist defense/psychologist prosecution) hierarchical log linear analysis which yielded partial chi squares was performed. Subjects who stated that the accused was innocent were discarded as there were too few to provide meaningful data (one or two in each condition). This process was repeated for both charges.

For the burglary charge, there were no significant main effects. There was an interaction effect for attitude by verdict,  $X^2 (3, N = 84) = 10.472, p < .005$  which supported the categorizations of attitudes (see Table 12). There was also a two-way interaction for verdict by issue involvement,  $X^2 (3, N = 84) = 5.209, p < .05$  (see Table 13). Subjects with low issue involvement gave more guilty and fewer NGRI verdicts, while subjects who were highly involved gave an equal number of guilty and NGRI verdicts. There was a slight trend toward an interaction of condition by verdict,  $X^2 (3, N = 84) = 2.781, p = .09$ , with subjects tending to follow the recommendations of the M.D. This tendency was most extreme when the Ph.D. recommended a finding of NGRI (see Table 14). There was a three-way interaction for condition by attitude by verdict,

$\chi^2 (7, N = 84) = 5.779, p < .02$  (See Table 15). Subjects opposed to the insanity defense who were exposed to the Ph.D. recommending a finding of NGRI tended to find the defendant guilty, while exposure to the M.D. recommending NGRI led to almost as many findings of NGRI as guilty. There was also a three-way interaction for condition by verdict by issue involvement,  $\chi^2 (7, N = 84) = 4.942, p < .05$  (see Table 16). The M.D. was significantly more influential (verdicts were consistent with his recommendations)  $\chi^2 (1, N = 19) = 4.0926, p < .05$  only when weakly issue involved subjects were exposed to the Ph.D. defense, M.D. prosecution. There was a three-way interaction for issue involvement by attitude by verdict, as well,  $\chi^2 (7, N = 84) = 8.811, p < .005$  (See Table 17). Highly issue involved pro-insanity defense subjects tended to find the defendant NGRI,  $\chi^2 (1, N = 16) = 10.54, p < .01$ , while highly involved anti-insanity defense subjects tended to find the defendant guilty,  $\chi^2 (1, N = 26) = 9.636, p < .01$ .

There was a two-way interaction for issue involvement by attitude  $\chi^2 (1, N = 84) = 9.804, p < .002$ . Anti-insanity defense subjects tended to report high issue involvement, while pro-insanity defense subjects tended to report low issue involvement. Since this was an attitude manipulation, it was examined more closely by running multiple regression analyses for attitude and issue involvement both with and without the previously mentioned median splits. Use of median splits had little affect on the interaction. In both cases the common variance between attitude and issue involvement was less than .09, making them

substantially independent. Additionally, despite the skewedness of the subject population, expected cell sizes for analyses remained above 5. As in Study 1, there was a spurious three-way interaction for condition by attitude by issue involvement,  $\chi^2 (7, N = 84) = 7.301, p < .01$  which occurred because of random assignment. Because this interaction did not involve verdict, it is of no particular interest.

Finally, because both experts were represented in each condition, to test whether subjects decided congruently with the recommendations of one expert more than the other, the number of subjects who followed the Ph.D.'s recommendations and the number of subjects who followed the M.D.'s recommendation were tallied. An equal number of subjects had been assigned to each condition. Within each condition, attitude toward the insanity defense was approximately equal. Therefore, 42 subjects were expected to concur with each expert. A simple chi square revealed a trend toward concurring with the M.D.,  $\chi^2 (1, N = 84) = 3.44, p < .07$  (see Table 18).

Table 12. Total Subjects: Attitude by Verdict

<u>CHARGE</u>	<u>VERDICT</u>	<u>ATTITUDE</u>	
		Anti	Pro
Burglary	Guilty	29	18
	NGRI	11	26
Assault	Guilty	29	23
	NGRI	6	22

Table 13. Total Subjects: Verdict by Issue Involvement

<u>CHARGE</u>	VERDICT	<u>ISSUE INVOLVEMENT</u>	
		Low	High
Burglary	Guilty	26	21
	NGRI	16	21
Assault	Guilty	29	23
	NGRI	12	16

Table 14. Burglary Verdict: Total Subjects Condition by Verdict

VERDICT	<u>CONDITION</u>			
	Ph.D. vs. M.D.		M.D. vs. Ph.D.	
	Def	Pros	Def	Pros
Guilty		28		19
NGRI		14		23

Table 15. Total Subjects: Condition by Attitude by Verdict

CHARGE	ATTITUDE	VERDICT	CONDITION			
			Ph.D. vs. Def	M.D. Pros	M.D. vs. Def	Ph.D. Pros
Burglary	Anti	Guilty		20		9
		NGRI		4		7
	Pro	Guilty		8		10
		NGRI		10		16
Assault	Anti	Guilty		19		10
		NGRI		2		4
	Pro	Guilty		9		14
		NGRI		10		12

Table 16. Burglary Verdict: Total Subjects by Condition by Issue Involvement

ISSUE INVOLVEMENT	VERDICT	CONDITION			
		Ph.D. vs. Def	M.D. Pros	M.D. vs. Def	Ph.D. Pros
Low	Guilty	14			12
	NGRI	5			11
High	Guilty	14			7
	NGRI	9			12



Table 17. Burglary Verdict: Total Subjects by Attitude by Issue Involvement

ISSUE INVOLVEMENT	ATTITUDE	<u>VERDICT</u>	
		Guilty	NGRI
Low	Pro	17	11
	Anti	9	5
High	Pro	1	15
	Anti	20	6

Table 18. Total Subjects: Agreement with Experts

	<u>AGREEMENT</u>	
	M.D.	Ph.D.
Burglary	51	33
Assault	44	36

Table 19. Total Subjects: Assault Verdict

	<u>VERDICT</u>	
	Guilty	NGRI
	52	28

For the assault charge, there was a main effect for verdict  $X^2$  (1,  $N = 80$ ) = 7.312,  $p < .01$ , with substantially more guilty than NGRI verdicts (see Table 19). There was a significant two-way interaction for verdict and attitude  $X^2$  (3,  $N = 80$ ) = 12.228,  $p = .0005$  (see Table 12). Subjects who opposed the insanity defense gave significantly more

guilty verdicts than those who favored it while subjects who favored the insanity defense gave an equal number of guilty and NGRI verdicts. There was also a significant 2-way interaction for verdict and issue involvement  $X^2 (3, N = 80) = 5.286, p < .03$  (see Table 13) with weakly issue involved subjects finding the defendant guilty more frequently than NGRI. There was a trend toward a three-way interaction for condition by attitude by verdict  $X^2 (7, N = 80) = 3.105, p = .07$  (see Table 15). Anti-insanity defense subjects exposed to the M.D.'s testimony for the prosecution provided significantly more guilty verdicts than subjects in other conditions. There was a two-way interaction for issue involvement by attitude  $X^2 (3, N = 80) = 10.242, p < .01$ , as well as a trend toward a spurious interaction for condition, issue involvement, and attitude  $X^2 (7, N = 80) = 3.237, p < .08$ .<sup>2</sup>

When a simple chi square was performed for subjects agreeing with the Ph.D. vs. the M.D. on the assault charge, the results were in the same direction as for the burglary charge, but were not significant (See Table 18).

As in the pilot investigation, ANOVA's were performed on the certainty measure by verdict, but there were no significant effects.

The same punishment and special handling factors emerged here as in the pilot investigation. These were evaluated in a 2 (attitude, anti vs. pro) x 2 (involvement, low vs. high) x 2 (condition, Ph.d./M.D.

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2. For an explanation of these findings, please see pages 38 and 39.

M.D./Ph.D.) factorial ANOVA to determine whether hearing one or the other expert argue consistently with subjects' feelings would affect their feelings toward the insanity defense. For Factor 1, (Punish the guilty), the only effect was a main effect for attitude  $F(1, 80) = 14.473$ ,  $p < .0001$  (see Table 20), in which subjects who favored the insanity defense were less punitive than those who opposed it. This effect supported the validity of the classification into pro vs. anti-insanity defense.

For Factor 2, (Treat the insane differently) there was a main effect for attitude  $F(1, 80) = 65.738$ ,  $p < .0001$ , with subjects who favored the insanity defense being more in favor of special handling. There was also a significant interaction for attitude and issue involvement  $F(1, 80) = 5.741$ ,  $p < .02$  (see Table 21). Highly issue involved pro-insanity defense subjects endorsed the factor advocating special handling of the insane, while highly issue involved anti-insanity defense subjects were less inclined to treat the insane differently. Weakly issue involved subjects obtained moderate scores which also reflected attitude bias. Again, this was supportive of the categorizations. There was also a trend toward a two-way interaction for condition and attitude  $F(1, 80) = 3.423$ ,  $p < .07$  (see Table 22). When exposed to the Ph.D. advocating and the M.D. opposing the insanity defense, anti-insanity defense subjects were less inclined to support special handling of the insane than in any other condition. Additionally, there was a trend toward a three-way interaction between condition, attitude, and issue involvement,  $F(1, 80) = 3.273$ ,  $p = .07$  (see Table 23). Weakly issue involved anti-insanity defense subjects

who were exposed to the M.D.'s prosecution testimony were the least special handling-oriented of any subjects. Other scores on the special handling factor appeared to be related to attitude, regardless of which witness testified for the prosecution or defense.

Table 20. Factor Means and Standard Deviations for the Insanity Defense Grouped by Attitude

	<u>ATTITUDE</u>				
	<u>Anti</u>		<u>Pro</u>		
	Mean	SD	Mean	SD	
Punishment Factor	4.73	3.39	8.11	3.87	Low = more punitive
Special Handling	11.32	3.44	5.55	3.50	Low advocates Special handling

Table 21. Special Handling Factor Means and Standard Deviations Grouped by Attitude and Issue Involvement

	<u>ATTITUDE</u>			
	<u>Anti</u>		<u>Pro</u>	
	Mean	SD	Mean	SD
<u>ISSUE INVOLVEMENT</u>				
Low	10.71	3.38	6.63	3.75
High	11.63	3.49	3.65	1.93

Note: Low advocates special handling of the insane.

Table 22. Special Handling Factor Means and Standard Deviations Grouped by Condition and Attitude

<u>ATTITUDE</u>	<u>CONDITION</u>			
	<u>Ph.D. vs. M.D.</u>		<u>M.D. vs. Ph.D.</u>	
	<u>Def</u>	<u>Pros</u>	<u>Def</u>	<u>Pros</u>
	Mean	SD	Mean	SD
Anti	12.21	2.96	10.06	3.38
Pro	5.50	2.81	5.59	2.60

Note: Mean = 9, < 9 advocates special handling of the insane.

Table 23. Special Handling Factor Means and Standard Deviations Grouped by Condition, Attitude, and Issue Involvement

<u>ATTITUDE</u>	<u>ISSUE INVOLVEMENT</u>	<u>CONDITION</u>			
		<u>Ph.D. vs. M.D.</u>		<u>M.D. vs. Ph.D.</u>	
		<u>Def</u>	<u>Pros</u>	<u>Def</u>	<u>Pros</u>
		Mean	SD	Mean	SD
Anti	Low	13.33	2.74	8.75	2.38
	High	11.83	3.78	11.22	2.99
Pro	Low	6.14	2.54	7.06	4.60
	High	4.00	2.76	3.45	1.44

Note: Mean = 9, < 9 advocates special handling

To determine whether attitudes toward the Ph.D. and M.D. who testified were different, the semantic differential-type scales were theoretically divided into the two factors most frequently associated with credibility; trustworthiness and expertise. Cronbach's Alphas were

calculated for these factors within each of the experts (See Table 24). All were above .70.

Table 24. Cronbach's Alphas for Expert Witnesses

	Witness 1	Witness 2
Trust	<u>alpha</u> = .79	<u>alpha</u> = .71
Expertise	<u>alpha</u> = .80	<u>alpha</u> = .80

Subsequently, repeated measures ANOVAS were performed on each credibility factor to compare the experts. Condition, issue involvement, and attitude were used as grouping factors. There was a trend toward a significant interaction between witness and issue involvement,  $F(1, 80) = 3.15$ ,  $p = .07$  (see Table 25). Witness 2 (the prosecution witness) over all was perceived as more trustworthy than witness 1 (the defense witness). For weakly issue involved subjects, the evaluations were in the same direction, but more extreme; that is the prosecution witness was even more trustworthy while the defense witness was even less trustworthy. There was a slight trend toward an interaction of attitude by witness,  $F(1,80) 3.15$ ,  $p = .08$  (see Table 26). Though subjects evaluated the prosecution witness as more trustworthy, this tendency was stronger for subjects who opposed the insanity defense. There was a three-way interaction for issue involvement by witness by condition,  $F(1, 80) 4.28$ ,  $p < .05$  (see Table 27). Weakly issue involved subjects who were exposed to the Ph.D./Defense and M.D./Prosecution tended to evaluate the M.D. as more trustworthy than the Ph.D. In all other conditions, the experts were viewed as approximately equally trustworthy. There was a

trend for a four-way interaction between issue involvement, attitude, condition, and witness,  $F(1,80) 3.32, p = .07$  (see Table 28). Ph.D.'s were viewed as nearly equal to M.D.'s as long as M.D.'s testified for the defense and Ph.D.'s testified for the prosecution. In the Ph.D./Defense, M.D./Prosecution condition, M.D.'s were viewed as more trustworthy than Ph.D.'s. for subjects with low issue involvement and for highly involved anti-insanity defense subjects. Among highly involved pro-insanity defense subjects, the Ph.D. was viewed as more trustworthy.

Table 25. Witness Trustworthiness: Means and Standard Deviations for Witness by Issue Involvement

	WITNESS			
	Defense Witness		Prosecution Witness	
	Mean	SD	Mean	SD
<u>ISSUE INVOLVEMENT</u>				
Low	9.75	5.28	7.93	4.45
High	9.11	4.62	8.32	4.29

Note: Low = more trustworthy

Table 26. Witness Trustworthiness: Means and Standard Deviations for Attitude by Witness

	WITNESS			
	Defense Witness		Prosecution Witness	
	Mean	SD	Mean	SD
<u>ATTITUDE</u>				
Anti	9.66	4.31	7.44	4.03
Pro	9.23	4.28	8.72	4.29

Note: Low = more trustworthy

Table 27. Witness Trustworthiness: Means and Standard Deviations for Issue Involvement by Witness, by Condition

		CONDITION							
		Ph.D. vs. M.D.				M.D. vs. Ph.D.			
		Def		Pros		Def		Pros	
		Ph.D.	M.D.	Ph.D.	M.D.	M.D.	Ph.D.	Ph.D.	M.D.
WITNESS		Mean	SD	Mean	SD	Mean	SD	Mean	SD
ISSUE									
INV									
Low		11.25	4.71	6.95	3.58	8.50	5.49	8.75	4.99
High		8.83	4.94	7.75	4.43	9.45	4.31	9.00	3.39

Note: Low = more trustworthy

Table 28. Witness Trustworthiness: Means and Standard Deviations for Issue Involvement by Witness by Attitude by Condition

		CONDITION							
		Ph.D. vs. M.D.				M.D. vs. Ph.D.			
		Def		Pros		Def		Pros	
		Ph.D.	M.D.	Ph.D.	M.D.	M.D.	Ph.D.	Ph.D.	M.D.
WITNESS		Mean	SD	Mean	SD	Mean	SD	Mean	SD
ATTITUDE									
ISSUE									
INV									
Low	Anti	11.33	5.28	6.83	4.17	8.75	5.06	7.63	3.81
	Pro	11.21	4.66	7.00	3.46	8.38	5.85	9.31	5.51
High	Anti	9.67	5.34	6.72	3.06	9.33	3.50	9.11	4.01
	Pro	6.33	2.25	10.83	6.55	9.55	5.04	8.91	2.98

Note: Low = more trustworthy

For the expertise factor, there were no main effects. There was an interaction for condition by witness  $F(1, 80) = 5.71$ ,  $p = .019$  (see Table 29). In the M.D. defense Ph.D. prosecution condition, the experts



were viewed as approximately equally expert, while in the Ph.D. defense, M.D. prosecution condition, the M.D. was viewed as more expert.

Table 29. Means and Standard Deviations for Expertise Factor:  
Condition by Witness

WITNESS	CONDITION			
	Ph.D. vs. M.D.		M.D. vs. Ph.D.	
	Def	Pros	Def	Pros
	Mean	SD	Mean	SD
Ph.D.	8.84	5.04	7.43	4.45
M.D.	6.18	3.77	7.07	4.89

Note: Low = More expert

To determine whether these assessments matched overall evaluations of Ph.D.'s and M.D.'s, a principle components factor analysis was performed on the COS employing varimax rotations using an eigenvalue = 1 as the criterion. The same M.D. and Ph.D. factors were derived as in the pilot investigation. 2 x 2 x 2 ANOVA's were performed on each factor, but there were no significant effects. The means were near nine (the midpoint) suggesting no bias for the M.D. factor. For the factor where Ph.D.'s were mentioned first and which included a measure of personal involvement, means were over nine, suggesting an M.D. bias.

To assess factual memory for the case we scored the number of memory items answered correctly. A 2 (Ph.D./M.D. vs. M.D./Ph.D. condition) by 2 (low vs. high) by 2 (anti vs. pro) ANOVA was performed to assess the effects of the independent variables on the number of items recognized. The only significant effect was an interaction effect between condition and issue involvement  $F(1, 80) = 4.638, p = .034$  (see

Table 30). Subjects with low issue involvement who were exposed to the M.D.'s testimony for the insanity defense remembered most facts, while subjects with low issue involvement who were exposed to the Ph.D.'s testimony for the insanity defense remembered fewest facts.

Table 30. Means and Standard Deviations for Total Memory Grouped by Condition and Issue Involvement

ISSUE INVOLVEMENT	CONDITION			
	Ph.D. vs. M.D.		M.D. vs. Ph.D.	
	Def	Pros	Def	Pros
	Mean	SD	Mean	SD
Low	19.45	2.18	20.63	1.86
High	20.50	2.30	19.65	2.23

To assess defense memory for the case, the number of defense items answered correctly was scored and an ANOVA was performed, as above. There was a trend for a condition effect,  $F(1, 80) = 3.242$ ,  $p = .07$  (see Table 31), with subjects who were exposed to the M.D. testifying for the insanity defense remembering more defense facts than subjects exposed to the Ph.D. for the defense.

Table 31. Means and Standard Deviations for Total Defense Memory Grouped by Condition

DEFENSE MEMORY	CONDITION			
	Ph.D. vs. M.D.		M.D. vs. Ph.D.	
	Def	Pros	Def	Pros
	Mean	SD	Mean	SD
	5.86	.93	6.23	.99

Finally, to assess prosecution memory for the case, the number of prosecution items answered correctly was scored and an ANOVA was performed, as above. There were no significant effects.

## DISCUSSION

Consistent with the pilot investigation, this study provides qualified support for an M.D. bias as measured by the tendency to follow M.D. recommendations, endorse attitudes consistent with the M.D.'s testimony, rate the M.D. as more credible and remember facts consistent with the M.D.'s testimony. This bias was most evident in specific circumstances. In some circumstances, there were no apparent differences between how M.D.'s and Ph.D.'s were perceived, and credentials of expert witnesses did not seem to be as important as whether the expert's testimony was consistent with subjects' initial attitudes.

As previously noted, when subjects were asked about attitudes toward Ph.D.'s and M.D.'s in general, on the first factor which stated M.D.'s are better qualified than Ph.D.'s for diagnosis, treatment, and testimony, there were no differences. When Ph.D.'s were mentioned first, however, and a personal involvement factor was included (which expert would subjects prefer to treat a relative), subjects demonstrated a medical bias. There are two possible reasons for this discrepancy. On one hand, the difference in response may be accounted for by subjects' reluctance to acknowledge a medical bias until they are confronted with the need to make a choice that would have personal implications. Alternatively, mentioning the Ph.D. first may alert subjects to consider the question more carefully, and thus bring out an M.D. bias that might not otherwise be apparent.

The overall M.D. bias suggested in the second general credibility factor was supported by the burglary verdict measure. There was a trend toward an M.D. bias with subjects selecting verdicts congruent with the recommendations of the M.D. This tendency became stronger when subjects were exposed to the Ph.D. defense--M.D. prosecution condition. In fact, most evidence of M.D. bias was only apparent in this condition. Specifically, anti-insanity defense subjects exposed to this condition found the defendant guilty, consistent with the position of the M.D. By contrast, when the M.D. testified for the defense, there was an equal number of NGRI and guilty verdicts. Similarly, in the Ph.D. defense, M.D. prosecution condition, low issue involved subjects tended to concur with the position of the M.D., while in other conditions, there were no significant differences in influence. For the assault charge, again, M.D. bias was only evident in the Ph.D. defense--M.D. prosecution condition; anti-insanity defense subjects selected verdicts congruent with the position of the M.D. much more consistently than when exposed to the M.D. defense--Ph.D. prosecution condition.

Attitudes about the insanity defense also seemed to reflect an M.D. bias only in the Ph.D. defense--M.D. prosecution condition. Subjects opposed to the insanity defense became less supportive of special handling of the insane when the M.D. testified for the prosecution. Low issue involved subjects who opposed the insanity defense became more extreme in this view than highly issue involved anti-insanity defense subjects when exposed to the M.D. for the prosecution (polarization).

Even credibility measures between the experts in this study demonstrated witness bias only in the Ph.D. defense--M.D. prosecution condition where M.D.'s were consistently viewed as more expert. Low issue-involved subjects viewed the M.D. as more trustworthy than the Ph.D. Similarly, M.D.'s were seen as more trustworthy among highly issue involved anti-insanity defense subjects. By contrast, among highly issue involved pro-insanity defense subjects, the Ph.D. was perceived as more trustworthy while in the M.D. defense condition, experts were perceived as equally trustworthy and equally expert. This Ph.D. bias on the trustworthiness factor may be explained by a previously existing overarching liberal view which encompasses both a receptiveness to psychologists and a belief in the need for the insanity defense. An alternative hypothesis is suggested when subjects' responses to the Credibility Opinion Survey are examined (a strategy suggested by the finding in the earlier investigation that these subjects tended to discount Ph.D.'s, in general). Even though the findings here are not statistically reliable, the same pro-insanity defense subjects that found the expert witness (Ph.D.) most trustworthy, discounted Ph.D.'s relative to M.D.'s more than other subjects just as they did in the pilot. This suggests that the Ph.D. may have been perceived as trustworthy because he was advocating a position congruent with subjects' initial attitudes.

On the surface, the tendency to find a medical bias primarily in the Ph.D. defense--M.D. prosecution condition is quite puzzling. After, all, a medical bias should have been evident regardless of the position taken by the experts. This pattern of results becomes much clearer,

however, when we examine additional information that emerged when the experts were compared. Specifically, there was an over all tendency to view the prosecution witness as more trustworthy.<sup>3</sup> This tendency was most evident among weakly issue involved subjects, and among individuals who opposed the insanity defense. Thus, the relatively consistent finding of a medical bias in the Ph.D. defense--M.D. prosecution condition occurred because the M.D. is the more credible witness taking the more "trustworthy" prosecution condition. In the other condition, the medical bias appears to have been cancelled out by the prosecution advantage which then fell to the Ph.D. By this same logic, the appearance of equality of experts in the M.D. defense condition is probably misleading.

In this study, involvement (but not attitude) seemed to influence how witness credentials affected memory. Weakly issue involved subjects exposed to the Ph.D. defense--M.D. prosecution condition remembered the most general facts. Low issue involved subjects exposed to the M.D. defense--Ph.D. prosecution condition remembered fewest general facts. Similarly, among both low and high issue involved subjects, most defense facts were recalled when the M.D. testified for the defense and fewest when the Ph.D. testified for the defense. For subjects with low issue

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3. In this study, the defense witness always testified first and the prosecution witness always testified second. For this reason, it is not clear whether subjects actually preferred the prosecution arguments or whether there was an order effect with subjects demonstrating a bias toward trusting the witness that testified second. Therefore, when a prosecution witness bias is reported, this alternative perspective should be considered. It will not, however, alter our general conclusions regarding credibility.

involvement, it seemed that the more credible witness enhanced involvement in the facts of the case, thus enhancing memory for general facts. Memory for defense facts in this study, unlike results obtained in the pilot investigation, was unaffected by issue involvement or attitude, suggesting that addition of a prosecution witness increased the salience and influence of credentials. When a more credible witness takes the less desirable (defense) position, motivation to attend to his testimony may be enhanced. Similarly, when a less credible witness takes a less desirable position, motivation to attend to his testimony may be reduced.

Over all, the effects of credentials on verdict, insanity defense attitudes, and memory were more evident when issue involvement was low, supporting previous observations that low involvement may lead to use of heuristic information (Chaiken, 1980) or to using the peripheral route to decision making (Petty, Caccioppo, & Goldman, 1981).

Low issue involvement seems to have affected outcomes in several specific areas. First, low issue involvement affected witness evaluations. Though most subjects viewed the prosecution witness as more trustworthy than the defense witness, low involvement subjects viewed the prosecution witness as even more trustworthy than the defense witness. When the prosecution witness was an M.D., this effect was even stronger. The more extreme evaluations suggest that subjects of low issue involvement have greater awareness of witness credentials or position, and in comparison to high involvement subjects, perceive these differences as greater.



Second, low issue involvement affected verdict. Regardless of subjects' attitude toward the insanity defense, low issue involved subjects tended to find the defendant guilty, a finding consistent with the recommendations of the more trustworthy prosecution witness. The only exception to this pattern occurred when the M.D. recommended a finding of NGRI; then low issue involved subjects were as likely to find the defendant NGRI as guilty, suggesting that subjects low on issue involvement were more susceptible to the recommendations of more credible witnesses (M.D.'s).

Third, low issue involvement affected how credentials shaped attitudes toward special handling of the insane. This was evident in the anti-insanity defense subjects, where weakly issue involved subjects exposed to the Ph.D. defense and M.D. prosecution were more negative toward special handling than highly involved anti-insanity defense subjects, while subjects exposed to the M.D. defense and Ph.D. prosecution neither supported nor opposed it. It appears that exposure to the less credible witness advocating a less acceptable position resulted in the initial attitude becoming more extreme (polarized).

Finally, low issue involvement affected how credentials influenced memory. When subjects were not highly issue involved, having the more credible witness (M.D.) testify first may have increased involvement and retention of information, regardless of whether the position advocated was congruent with subjects initial attitudes.

The current study was supportive of the findings of Lord, Ross, and Lepper (1978) in demonstrating that opinionated subjects who

are exposed to the same information examine it in a biased manner and use it to confirm or polarize their initial beliefs. In this study, verdicts were generally consistent with initial attitudes. Responses on punishment and special handling factors were also consistent with initial attitudes. Evidence for attitude polarization was also found, however it was only evident when mediated by credentials and involvement. In the pilot investigation, a polarization effect was observed among highly issue involved pro-insanity defense subjects; when exposed to the Ph.D. (less credible witness) testifying for the defense, they became more extreme in their anti punishment views. Here, a polarization effect was found among low issue involved anti-insanity defense subjects; when exposed to the M.D. testifying for the defense and Ph.D. for the prosecution, subjects became even less special handling oriented than highly involved anti-insanity defense subjects.

Attitudes, issue involvement, and witness credentials were not the only factors that influenced mock juror behavior. The context of the arguments also affected outcomes. In the present study, the pattern of verdicts was somewhat different for the assault charge than for the burglary charge. The only evidence for an M.D. bias on the assault verdict was the proportionately greater number of guilty verdicts when the M.D. testified for the prosecution than when the Ph.D. testified for the prosecution. Other verdict differences related more to a prosecution bias than a credentials bias. Specifically, there were significantly more findings of guilty than NGRI, particularly among subjects who did not feel strongly. Even when subjects favored the

insanity defense, there were equal findings of Guilty and NGRI. This may have resulted from the "less crazy" offense, or may reflect confusion between insanity and guilt and the tendency for jurors to find defendants guilty when crimes are violent (Hans & Slater, 1983; Loftus, 1980; McGlynn & Drellinger, 1981). The strong tendency to find the defendant guilty in the face of insanity evidence makes the latter possibility seem more likely. Regardless, the less crazy, and more violent assault charge, appears to have led subjects to focus on evidence bearing on guilt, resulting in their being more influenced by the prosecution witness. Alternatively, use of the guilty verdict for the assault charge may have also represented a compromise, or a way of assuring that the defendant would be treated for his mental illness, then punished.

As anticipated by the pilot investigation, the willingness of subjects to go along with either expert disappeared when subjects were exposed to evidence both for and against the insanity defense. Highly issue involved subjects tended to follow the recommendations of the expert who advocated their favored position, regardless of credentials.

Contrary to the hypothesis, certainty of verdict was unaffected by the condition to which subjects were exposed. Subjects tended to be quite certain of whichever decision they made. This may have occurred because the certainty measure was not sufficiently fine-tuned to detect differences. Alternatively, demand characteristics of the task, "your decision would affect the life of the defendant", may have pulled for subjects to either make decisions about which they felt confident, or to report feeling confident about the decision they made.

### General Conclusions

This study supports the hypothesis that subjects tend to make decisions congruent with prior beliefs. Verdicts, attitudes, and memory for items were all affected by initial bias, supporting the need for attorneys to assess such attitudes in the jury selection voir dire. In the context of the charge which clearly reflected insanity, previous attitudes were substantially predictive of verdicts when subjects were highly issue involved. Though decisions of highly involved biased jurors would be predictable, they would be eliminated by an attorney whose case needed support of the opposing bias. While truly objective jurors would be the ideal, they may be impossible to find. Jurors with low issue involvement (even if somewhat biased) might be acceptable because they would be more likely to change opinions. Change, however, occurs in two directions; verdicts can be opposite to initial attitudes, or initial attitudes can become more extreme. Therefore, utilizing more credible witnesses can seem as important to the case as presenting the facts.

Because the subjects were students of introductory psychology, in which every effort had been made to assure that Ph.D.'s had been presented in a favorable light, it seemed likely that M.D. bias would be minimized and Ph.D. bias would be enhanced in this group. Additionally, given the recent questioning of perceived differences between Ph.D.'s and M.D.'s, the youth of the subjects should also have reduced M.D. bias. Therefore, if an M.D. bias were obtained in this sample, it would be

generalizeable, despite the SES and educational level of our subjects. For these reasons, the support for our hypothesized medical bias in both studies was particularly striking.

To make the sample more representative of the general population, only 13 psychology majors were included. To determine what affect majoring in psychology would have on the data, additional analyses were run excluding psychology majors. Overall, the medical bias seemed to be somewhat more powerful when psychology majors were excluded, and with one exception, the pattern of results remained unchanged. The exception was quite surprising, for when psychology majors were eliminated, the perception of superior expertise of the M.D. in the Ph.D. defense M.D. prosecution condition was eliminated. This finding could not be adequately evaluated since the psychology major sample size in this case was too small.

Though the argument for a generalizable M.D. bias is conceptually strong, there is a possibility that the subjects may not be representative of the general population simply because they do know the differences between M.D.'s and Ph.D.'s. Research bearing on this matter would be useful.

Medical bias may also have occurred because the one area in which psychologists have differentiated themselves from psychiatrists is in the use of psychological testing. In this study, however, so both experts could use identical testimony, the defendant reportedly had refused testing. Had psychological testing been included, it might have enhanced perceptions of Ph.D. trustworthiness and expertise.

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Medical bias may have been apparent because the insanity defense case employed was highly simplified. Even though it was modeled after actual court cases, there are many more variables which would apply in an actual jury trial and which would probably modify the effect of credentials. For example, following the pilot investigation, it was suggested that the addition of another variable (the second witness) would enable highly issue involved subjects to select verdicts congruent with their initial attitude regardless of credentials. This notion was supported in this study. The addition of a single variable meant that verdicts of fully half the subjects were relatively unaffected by an M.D. bias. Including more variables might further reduce the impact of witness credentials.

Additionally even though there was a fairly strong medical/prosecution bias among subjects with low issue involvement, it should be noted that salience of witness credentials was artificially heightened by the use of written testimony which tends to focus individuals on informational (central) aspects of communication rather than peripheral ones (Chaiken & Eagly, 1983). By highlighting credentials in the voir dire, attention was focused on them, but there was little competing peripheral information (attractiveness, likability, dynamism). In this study, use of written testimony enhanced internal validity because peripheral information can be better controlled. However, it also may limit generalizability, since in a court of law, or even had this study been videotaped, likability, attractiveness, and

dynamism might have become more salient than credentials. This should be investigated.

Whether or under what conditions jury deliberations would serve to emphasize or diminish the salience and impact of M.D. or Ph.D. credentials is also unknown. Unlike the mock jurors, however, juries deliberate in the final decision making process. This would also be an area for further research.

Even if the M.D. bias can be generalized, it does not have to be an insurmountable obstacle for forensic psychologists. There is already evidence accruing to support the position that psychologists have the requisite expertise to render opinions on competence and criminal responsibility (Dix & Poythress, 1981; Petrella & Poythress, 1983), and more research documenting comparability of medical and non medical experts needs to be done. As noted by Dix and Poythress, the present task for nonmedical professionals is to convince lawyers that they are as well qualified as physicians by asserting their expertise and being able to cite the evidence bearing on it. Subsequently, lawyers must be prepared to establish their credibility in the courtroom by asking questions designed to demonstrate competence, to enhance expertise, and to clarify witness motives, thereby increasing trustworthiness.

Continuing efforts to educate the public about psychology may also have some effect in enhancing the perceived credibility of Ph.D.'s. Over the long term, however, psychologists should continue to subject their forensic evaluations to close scrutiny, to enhance their abilities to detect malingering vs. psychosis, to enhance their abilities to

predict violence and to approach the courtroom situation in as professional and competent a manner as is possible. In time, it will be superior (or equal) in-court and out-of-court performance which has the most bearing on the perception of psychological expertise.



## APPENDIX A

The following is a copy of the basic testimony transcript (and variation) employed in this study. To avoid repetition, only the M.D. defense, Ph.D. prosecution transcript is presented. To develop the Ph.D. defense, M.D. prosecution transcript, replace Appendix A pages 71-73 with 90-92 and 83-86 with pages 93-96. (Cases used in the pilot investigation can be created by deleting pages 83-86, or 93-96.)

Caveat: Consistent with recent federal rulings on the insanity defense, the burden of proof is on the defense to demonstrate insanity. The criterion for sanity, however, is the one used by Arizona courts: McNaughten.

### Instructions

In this experiment, you are a juror. Remember as you examine the transcript of the court proceedings that your decision is important. If you considered the evidence presented in the context of an actual trial, your decision would determine the fate of the defendant--whether he went free, served time in prison, or received some kind of treatment. Consider the facts of the case as carefully as you would if your decision would actually affect the life of the accused, and make the best decision you can, based on the facts of the case and on the law which will be explained by the judge.

After you have read the case, you will be asked for your verdict of innocence or guilt. Then you will be asked to respond to a number of items which will help the investigator learn more about how you made your decision.

Please attend closely to the facts of the case. You will be asked to take a memory test at the end of the experiment.

The following case is based on a real case heard in the State of Arizona. Names, places, and other identifying information have been changed.

Harold Cory: Defendant  
John Sands: Victim  
Mae Sands: Victim's wife  
Pete Gray: Police Officer  
Mr. James: Attorney for the Prosecution

Mr. Jackson: Attorney for the Defense  
Jacob Brown: Expert Witness  
Walter Greer: Expert Witness

Regardless of your opinion of the insanity defense, it is extremely important that you try the case on just what comes out here from the witness stand and from the Court's instructions, and set aside anything you have heard about the case or the insanity defense.

Charges and Initial Instruction

THE COURT: This is the State of Arizona against Harold Cory. The first charge we are concerned with is second-degree burglary, that on the 3rd of August 1978, Harold Cory entered the home of one John Sands in Tucson, Arizona.

And the next count charges assault by means of force likely to produce great bodily injury and states on the 3rd day of August 1978, Harold Cory engaged in a struggle with John Sands and struck him several times on the head with a pop bottle.

To both of these charges, Mr. Cory has entered a plea of not guilty by reason of insanity. The word "insanity" as it is used here does not include all forms of mental illness, but is limited to legal insanity which consists of such a defect of reason as to prevent the person from knowing the nature and quality of the acts he was doing, or, if he did know the nature and quality of such acts, that he did not know that what he was doing was wrong.

You are to decide whether, at the time of the commission of the crime charged, the defendant was in such a state of mind that he did not know right from wrong or he did not know the quality and nature of his act and the consequences thereof.

The defense must prove, beyond a reasonable doubt, the insanity of the defendant.

Do you wish to make a statement, Mr. James?

Opening Statement: Prosecution

MR. JAMES: Yes, your Honor.

May it please the Court, members of the jury. The case you will hear today concerns what the Judge just read. There are two charges against Mr. Cory, both of which arise out of a single incident which occurred in the home of Mr. Sands. Oftentimes, although the incident can really be characterized as a single transaction, a person will commit more than one crime. That is the case today.

There were two individuals involved, John Sands who, in defending his property was struck by Mr. Cory, the defendant, and Mae Sands who was terrified to wake and find Mr. Cory standing in their bedroom. Both of these individuals will testify. They will identify Mr. Cory and tell you what occurred.

The defendant has entered a plea of not guilty by reason of insanity. That means that the defense will not attempt to prove that these events did not occur. The defense does not dispute the facts of the case. Rather, they will attempt to prove beyond a reasonable doubt that the defendant was insane and not responsible for his acts. They will suggest that at the time of the act, the defendant was suffering from: 1) such a defect of reason as not to know the nature and quality of the act, or 2) If he did know, that he did not know he was doing what was wrong.

What I'm allowed to do, and what Mr. Jackson is allowed to do, is to explain what we expect the evidence to show. What we expect that we will have proven to you, after the witnesses have testified, and the evidence is in, is that Mr. Cory entered the Sands' home to burglarize it and that he engaged in a struggle with Mr. Sands during which Mr. Sands was struck several times. We expect that we will have created doubt that the defendant was insane and not criminally responsible, that the defendant both knew the nature and quality of the act, and that he knew that what he was doing was wrong.

THE COURT: Do you wish to make a statement Mr. Jackson?

Opening Statement: Defense

MR. JACKSON: Yes, your Honor.

May it please the Court, members of the jury. Jury duty is often done by many, many members of our community. But this is my opinion that the single most important task of our community and our country is that of jury duty. You are to decide the fate of Harold Cory. I don't know if I was in your position if I could sit there and do it.

I'm not sure about Mr. James, but as jurors, you will base your decisions on legal principles. That means, that the judge, at the end of all the evidence, will explain those principles to you, and give you a set of instructions to follow. That will be as to the correct Arizona law which you must follow in making your decision.

Arguments are not evidence. Everything Mr. James has explained to you and everything that I'm going to say is not evidence. The evidence that you decide this case on is which you will hear from the mouths of the witnesses.

The accusation that Harold Cory committed two offenses is not evidence. The accusation serves merely to bring Harold Cory here with me in this courtroom to face you. It no longer stands. Harold Cory is now in the presumption of innocence--Innocence because Mr. Cory did not know right from wrong, or did not know the quality and nature of his act and the consequences thereof.

What you're going to hear today is some people telling you simple stories. Mr. James explained that the victim, his wife, a police officer and an expert will testify. What I wish you to do is to listen carefully. The story is not as crystal clear as Douglas James makes it out to be.

Recall the oaths you made to examine the evidence presented and to keep an open mind until all the evidence has been concluded. And that when Douglas James fails to make good on the promise that he made I request that you find Mr. Cory not guilty by reason of insanity. Thank you.

THE COURT: Since the law requires that the burden of proof is on the defense to raise doubt about the mental status of the defendant, the defense will call the first witness.

JACOB BROWN, M.D. having been first duly sworn to state the truth, the whole truth and nothing but the truth, testified on his oath as follows:

DIRECT EXAMINATION

BY MR. JACKSON

Q Please state your name for the record.

A Jacob Brown.

Q What is your employment, sir?

A I am a staff psychiatrist and professor on the staff of Arizona General Hospital in Tucson.

Q And how long have you been employed in that position?

A I will be completing my fifteenth year this spring.

Q Are you licensed to practice medicine in the State of Arizona?

A Yes.

Q Have you written any articles or documents or books in connection with the subject of psychiatry, psychiatry and the legal system (forensic psychiatry), diagnosis, reliability, and subjects of that type?

A I've published two books and approximately twenty articles, book chapters, and book reviews.

Q Do some of these deal with the subject of the reliability of psychiatric diagnosis?

A Yes, some of them do.

Q Have you made a particular effort to study the subject of psychiatry or psychiatric conditions and responsibility?

A Yes, sir, I have.

Q And have you written on that subject also?

A Yes, sir, I have.

Q Have you studied on the subject of schizophrenia and responsibility?

A Yes, I have written on that subject. In fact, most of my work deals with schizophrenia and responsibility.

Q And are you a member of the American Board of Psychiatry?

A Yes, and the American Psychiatric Association as well.

Q Have you made a particular study of forensic psychiatry?

A Yes, sir, I have made a long study--almost ever since I went into psychiatry more than 20 years ago. It has consisted of a study of the whole literature of the subject, including sociology, anthropology, current practices in this and other countries. I have written several articles and presented symposia on the subject.

MR. JAMES: May I voir dire?

THE COURT: You may voir dire.

Q (Mr. JAMES) And what training do you have in psychiatry?

A I studied medicine at Harvard Medical School. I interned and served my residency at the teaching hospital affiliated with UCLA.

Q Tell me, Doctor Brown while you were studying medicine, that is while you were in medical school, how much time did you devote to study of the mind?

A Relatively little. I had the usual courses in neurology, but had few opportunities to study psychiatry, per se. My specialization in psychiatry did not occur until my residency.

Q How long is a psychiatric residency?

A Three years.

Q And what special qualifications do you have in diagnosing and treating mental disorders.

A On my residency, I worked intensively with patients from all diagnostic categories, but concentrated primarily on schizophrenia. I was particularly interested in performing competency evaluations.

Q And what are they?

A I endeavor to determine if patients understand the proceedings against them and can assist their attorneys.

Q And since coming to Arizona General?

A I have specialized in competency and insanity evaluations.

MR. JAMES: I Have nothing further.

DIRECT EXAMINATION (Resumed)

BY MR. JACKSON

Q Are you the same Dr. Jacob Brown who examined Harold Cory pursuant to the district court of Pima County, some time subsequent to August 3, 1978?

A Yes I am,

Q What were your findings at that time?

A At that time, he was incompetent to stand trial.

Q What in your findings led you to the opinion that Mr. Cory was incompetent to stand trial?

A In simple terms, the client could not assist counsel in his defense. He could not communicate with his attorney.

Q Why is that?

A He demonstrated what we call "loosening of associations".

Q And what does that mean?

A Most individuals' thoughts stand in some relationship to each other. In a conversation, for example, an individual might describe a conflict at work and, in the process, remember a joke about someone who confronted a similar situation. That would be an association by similarity. Loose associations don't follow the usual pattern of being related by similarity or time sequence. They might be related by the sound of a word. World peace might be associated to piece of pie which becomes associated with geometry. Often, there is no apparent connection between ideas at all. As a consequence, their conversation is extremely difficult, sometimes impossible to follow.

Q And did you see Mr. Cory after that?

A Yes. I saw him for two one hour interviews on March 12 and 14 of this year.

Q Based upon your examination of Mr. Cory, Doctor, do you have an opinion, based on reasonable medical certainty, as to whether Harold Cory was suffering from a mental disease?



A I do.

Q And what is your opinion?

A I believe that Mr. Cory is suffering from a severe mental illness which, in my opinion had lasted some period of time prior to the time of my initial examination.

Q Can this illness be described in terms of a diagnostic category and, if so, what is that category?

A The illness I found him to be suffering from can be called, in kind of medical shorthand, chronic paranoid schizophrenia.

Q Can you describe that illness, Doctor, and tell us what factors were significant in making your diagnosis?

A This illness is considered to be a psychological illness, an illness of the mental functioning, traditionally unassociated with any physical damage to the brain. The most apparent finding was that Mr. Cory had a well elaborated delusional system. For example, he thought he owned the victim's house and most of the property in that neighborhood. He believed he was only going to bed--in his own home--when the incident occurred. He also collected garbage and kept it in piles in his bedroom. He believed that each item he picked up had magical properties. For example, he believed the pop bottle made him invisible, and that other items gave him strength and intelligence. He believed he needed those special powers because the FBI, the CIA, and the police wanted to lock him up. When he was first arrested, he refused to eat because he was certain he was being poisoned.

The second set of findings I observed had to do with defects in Mr. Cory's emotional reactions. Emotionally, there was a disharmony between his emotional reactions and the thoughts that were going on at the time. For example, when he talked about the assault on Mr. Sands, he was matter of fact, calm--he could have been describing what he had for lunch for all of the emotion he showed.

Q What other evidence did you have of the client's mental state?

A This illness develops over a lengthy period of time. According to the patient's mother, aunt, and former girlfriend, about 18 months ago, Mr. Cory began withdrawing socially and emotionally from activities that had formerly interested him. His behavior, as I mentioned before, became bizarre. His appearance deteriorated. About 18 months ago, he stopped taking care of himself, he seldom bathed or changed his clothes. He didn't seem to care how he looked.

Q Given what you have stated about the defendant's diagnosis, do you believe that he would be capable of knowing the nature and quality of

the acts he was doing, or if he did know the nature and quality of such acts, that he did not know that what he was doing was wrong.

A No. I believe this client's perceptions were so distorted that he would be unable to appreciate the nature and quality of such acts--or that they were wrong.

Q No further questions.

#### CROSS-EXAMINATION

BY MR. JAMES

Q Dr. Brown you have gone over your testimony that you would give here today with Mr. Allen, have you not, sir?

A I had a conference with him, yes.

Q And how much is he paying you for your testimony?

A He is not paying for my testimony, he is paying for my time.

Q And at what rate?

A \$85 per hour, my usual hourly fee.

Q Dr. Brown you testified that Mr. Cory believed the bottle would make him invisible.

A Yes.

Q And you are aware that he carried it into the home of the victim.

A Yes.

Q Hypothetically, wouldn't you agree that it was possible that he carried the bottle precisely because he believed it would make a good weapon?

A He carried the bottle because it had magical properties and he didn't want to lose it.

Q But wouldn't you agree that in another case where a schizophrenic individual carried an item which would make him invisible that he could have been carrying it because it would make him invisible?

A I suppose that could happen, yes.

Q Isn't it possible that even if an individual thought the bottle would make him invisible, he might use it for breaking into houses precisely because he knew that was wrong and needed to conceal himself?

A That isn't what happened.

Q But isn't it possible?

A Yes.

Q Couldn't Mr. Cory's behavior upon being caught--growing frightened, defending himself, be seen as a relatively normal response for anyone caught in a stranger's home doing something illegal?

A Anything is possible.

Q I have nothing further.

THE COURT: Mr. Jackson?

REDIRECT

BY MR. JACKSON

Q Dr. Brown, you testified it was hypothetically possible that Mr. Cory carried the bottle because it would make a good weapon. Do you believe that's why he carried it?

A No. He believed it had magical properties and he did not want to lose it.

Q And do you believe he carried the bottle because he believed breaking and entering was wrong and he needed to be invisible?

A No.

Q Dr. Brown, you stated that the defendant's perception of reality was impaired.

A Yes.

Q And that this would lead him to misperceive and misinterpret the events going on around him?

A Yes.

Q And didn't you state earlier that the defendant did not understand that it was wrong to enter the house?

A Yes--he believed he was going to sleep in his own house.

Q So when Mrs. Sands screamed, he was startled, and the when Mr. Sands grabbed him, he was terrified and fought for his life?

A Yes, that is what I believe happened.

Q Doctor, why would you tend to disbelieve the interpretation suggested by Mr. James?

A It's because -- if the client had known he had done something wrong, I believe he would have gone more than several blocks away. I also believe it would have been hard for him to sleep--knowing what he did was wrong and that the police would be looking for him.

Q No further questions.

THE COURT: Mr. James?

MR. JAMES: I have nothing further.

THE COURT: The State will call the next witness.

JOHN SANDS, having been first duly sworn to state the truth, the whole truth and nothing but the truth, testifies on his oath as follows:

DIRECT EXAMINATION

BY MR. JAMES:

Q Will you state your name, please?

A John Sands.

Q Would you tell the court what happened on the morning of August 3, 1978?

A My wife and I had retired early--before the 10 o'clock news was over. At about 2 a.m. I woke to the terrified screams of my wife. There was a man standing in front of the dresser. She must have interrupted him.

He turned to run. I was out of bed by then. I caught him just outside the bedroom--grabbed him from behind. He turned on me then, and I don't remember anything till I woke. There was a paramedic and a policeman.

Q Can you identify the man who struck you?

A Yes, he's right over there--Harold Cory. That's the one.

Q Could you see him clearly?

A Yes, sir. There was a full moon that night--and our window shades were open. I am certain that's him.

Q And what did he do when your wife screamed.

A He turned and ran, he knew he shouldn't...

Q Did you receive medical treatment for your injuries?

A My wife called the paramedics--or the police did. Anyway, they came. They took me to the emergency room of St. Olaf's Hospital. I was given 20 stitches, for the cut on my head. I didn't stay over night--though we were all afraid I'd have a concussion. I didn't.

Q I have nothing further.

#### CROSS-EXAMINATION

BY MR. JACKSON

Q Mr. Sands, you stated that you awakened to the screams of your wife.

A Yes, sir.

Q And that you saw Mr. Cory by the dresser--close enough for you to clearly identify him.

A Yes, sir.

Q What was he doing at the time?

A I don't know--he had turned to face my wife--where the screams came from. He looked pretty scared. She must have caught him doing something. Then he started to run away.

Q Mr. Sands, would you say it was normal for a man to carry a pop bottle into the house of strangers?

MR. JONES: Objection, your Honor. Mr. Jackson is asking for the witness's opinion.

THE COURT: Sustained.

Q Mr. Sands, had you left a pop bottle in the bedroom?

A No.

Q To your knowledge, was there an empty pop bottle in the bedroom?

A No, sir. He must have brought it in.

Q Wouldn't you wonder why a "burglar" be carrying an empty pop bottle--not one he picked up nearby to use as a weapon, but one he carried with him always?

MR. JONES: Objection, your Honor. Mr. Jackson is asking for an opinion.

THE COURT: Sustained.

Q I have nothing further.

THE COURT: Mr. Jackson?

MR. JACKSON: Nothing further.

THE COURT: Call your next witness.

MAE SANDS, having been first duly sworn to state the truth, the whole truth and nothing but the truth, testified on her oath as follows:

#### DIRECT EXAMINATION

BY MR. JONES

Q Will you state your name please?

A Mae Sands--I'm John Sands' wife.

Q And could you tell the Court what occurred on the morning of August 3, 1978.

A My husband, John and I had been asleep for quite awhile when I heard some rustling in the bedroom. At first I thought it was John--he has stomach problems and often gets up in the middle of the night. Only I heard John sleeping (snoring). When I opened my eyes, there was this man--his back was toward me and he was leaning over the dresser. I could see he was tall, blonde--I was frightened. I knew he was going to rob us!!! We hear such horrible things these days.

John woke instantly. The man was already by the door when John caught him. They struggled--John fell. Then I heard a crash--glass shattering. I stayed in the bedroom and called the police.

Q Can you identify the man who struggled with your husband.

A Yes--I think it was Mr. Cory--yes, that's him.

Q I have nothing further.

CROSS-EXAMINATION

BY MR. JACKSON

Q Mrs. Sands, did you leave a pop bottle in the bedroom?

A No, Sir.

Q Were there any pop bottles in the hallway that the defendant could have grabbed?

A No, Sir.

Q Could he have gotten a bottle from the kitchen or storage area?

A No. I doubt it. He broke in through the other bedroom window. As near as we can tell, he didn't get to the kitchen until he was leaving.

Q Were there pop bottles in that bedroom?

A No.

Q So you're saying that he did not find the weapon in your house, and that he carried the bottle with him when he allegedly came to rob you.

A Uh, I guess so.

Q You guess so?

A Yes, he must have brought it.

Q Isn't it odd that a robber would carry an empty pop bottle into the house to rob you! No further questions.

THE COURT: Mr. James, do you have any further questions?

MR. JAMES: No, your honor.

THE COURT: Call your next witness.

PETE GRAY, having been first duly sworn to state the truth, the whole truth and nothing but the truth, testified on his oath as follows:

## DIRECT EXAMINATION

BY MR. JAMES

Q State your name and occupation please.

A I'm Pete Gray. I'm a patrolman for the City of Tucson Police Department.

Q You responded to a possible burglary in August of 1978?

A Yes.

Q Was that at the house of Mr. John Sands?

A Yes.

Q Would you tell the court what happened?

A My partner and I were dispatched to the Sands' home sometime after 2 a.m. The paramedics arrived at about the same time. When we got there, we knocked on the door. We identified ourselves as police officers. It took several minutes before Mrs. Sands answered the door. She was tearful and trembling. She reported what had happened--described the man who had assaulted her husband.

We walked into the kitchen where the defendant had left. He had literally jumped through the glass portion of the kitchen door! There was glass all over. Some blood, too.

Mr. Sands was coming around. There was blood in his hair, but he seemed to be coming around okay. He gave the same description as his wife. After taking down the information, my partner and I followed the trail of Mr. Cory. It was pretty easy. It had rained off and on throughout the evening and there were footprints.

We found the defendant, Mr. Harold Cory, asleep on the roof of a house several blocks away. He matched the victim's description--tall blonde, wearing a tattered sweatshirt. And there was blood on his arms and face--where he had cut himself getting out of the house. He must have been in a real hurry!

Q And what did you do?

A I placed him under arrest.



## CROSS-EXAMINATION

BY MR. JACKSON

Q Did you, at the time of the arrest, read the defendant his Miranda rights?

A Yes.

Q And did you ask him if he understood his rights.

A Yes, and he said he did.

Q Did you ask if he was willing to answer your questions?

A Yes.

Q And what was his response?

A It was weird. He started talking about the bill of rights, and then right of way--and then he became almost incomprehensible.

Q Mr. Gray, did you, during your pursuit of the defendant find the weapon -- the pop bottle.

A We found a pop bottle, yes. I can't say for sure that it was the weapon used in the assault.

Q And where did you find it?

A The defendant, Mr. Cory had it.

Q After he struck Mr. Sands, you're saying he may have carried it for several blocks and gone to sleep with it?

A Yes. .

Q Mr. Gray, you called the pop bottle a "weapon". I wonder why Mr. Cory would use a pop bottle as a "weapon" when knives and guns are so much more effective, and sticks and rocks are so much easier to find. Furthermore, as a police officer, don't you find it odd that Mr. Cory had gone to sleep with it?

A I guess so, yes.

Q Thank you Mr. Gray. I have no further questions.

THE COURT: Have you anything else Mr. James?

MR. JAMES: No, your honor.

THE COURT: Mr. James, you may call your witness.

MR. JAMES: The State of Arizona calls Walter Greer, Ph.D.

WALTER GREER, PH.D., having been first duly sworn to state the truth, the whole truth and nothing but the truth, testified on his oath as follows:

DIRECT EXAMINATION

BY: MR. JAMES

Q State your name and occupation please.

A My name is Walter Greer. I am a clinical psychologist and professor on the staff of Arizona Psychological Consortium.

Q And how long have you worked in that position?

A Five years.

Q And prior to that time?

A I was a professor of clinical psychology at McLean/Bridgewater for ten years. That's the state hospital affiliated with Harvard Medical School.

Q Are you certified to practice psychology in the State of Arizona.

A Yes. I also am licensed in Massachusetts.

Q Have you written any articles or documents or books in connection with the subject of psychology, forensic psychology, diagnosis, reliability, and subjects of that type.

A Yes. I have published approximately thirty articles on schizophrenia, and one book on forensic psychology.

Q And have you made a particular effort to study the subject of psychological conditions and responsibility?

A Yes. At least half of my work deals with that express problem.

Q Are you a member of any professional groups?

A I am a member of the American Psychological Association, Western Psychological Association, and the Arizona Psychological Association.

Q And what experiences qualify you as an expert on issues of insanity?

A At Bridgewater I worked in therapy and assessment primarily with the criminally insane. Since I have been at the Arizona Psychological Consortium, I have performed competency and insanity evaluations regularly.

Q And how many forensic evaluations have you done in the last 15 years?

A Somewhere around 500.

MR. JACKSON: May I voir dire?

THE COURT: Go ahead.

Q Mr. Greer -- You are not a doctor, are you?

A I have earned a Ph.D. in psychology. That involves four years of graduate school in which I studied human feelings, thoughts and behaviors almost exclusively. Since the Ph.D. is, in part, a research degree. I performed research related to legal issues in psychology and published three articles before completing graduate school. I also worked in a mental health setting for three years (half time) with patients. After graduate school, I interned for a year in a state hospital where I worked full time with patients. But I not a medical doctor--I have not gone to medical school.

Q How are you addressed in other settings?

A My clients and most professionals refer to me as Doctor.

Q Fine. Mr. -- Dr. Greer, where did you study psychology?

A I studied psychology for 4 years as an undergraduate at Princeton. I then completed four years of graduate school at Yale. Then, as I mentioned earlier, I interned at Yale and got a job with Harvard where I taught psychology for ten years.

Q No further questions.

MR. JAMES:

Q When did you examine the defendant?

A On May 23, 1983.

Q And how long did you spend?

A Forty-five minutes.

Q Is that the length of a standard examination?

A Examinations vary considerably--from 30 minutes to five hours depending on the complexity of the case or on whether I am able to administer psychological tests. In the case of the defendant, the examination lasted only an forty five minutes because he refused to take psychological tests.

Q And how does that affect the validity of your findings?

A I believe I was able to make an adequate assessment of this man's psychological functioning.

Q And what were your findings, Dr. Greer?

A On examination, Mr. Cory was extremely guarded and only marginally cooperative--He seemed somewhat fearful. He provided few details of his life. He would not discuss the case. His answers to most questions about himself, his background or his family were along the lines of "I don't know". He did not speak spontaneously or ask questions.

Q Dr. Brown testified that there was "loosening of associations", which made him difficult to understand. Are your findings consistent with that?

A No. I observed no loosening of associations. He was somewhat abstract, but not loose, tangential or circumstantial.

Q What about the emotional state of the defendant? Were his emotional responses normal?

A I did note some blunting of affect--that is, Mr. Cory demonstrated little variation in feeling regardless of content.

Q And is blunted affect indicative of schizophrenia?

A It can be associated with schizophrenia or any number of problems including depression. I have also observed blunted affect in highly intellectualizing people we would call "normal". Medications may also cause emotional expression to appear blunted. By itself, blunted affect is not diagnostic.

Q What about delusions? Did you notice any evidence of unusual beliefs such as the pop bottle which supposedly made him invisible?

A I found no evidence of delusions, illusions or hallucinations. He would not talk about the pop bottle, however.

Q And what is your opinion about this client's mental condition?

A He is not suffering from a mental illness at the present time. His ability to reason and to control his conduct is not impaired.

Q No further questions.

CROSS EXAMINATION

BY MR. JACKSON

Q Dr. Greer, your observations were quite different from those of Dr. Brown. How do you account for the difference in your perceptions?

A I cannot speak for what Dr. Brown observed. I can only describe my own observations, and add my suspicion that Mr. Cory was faking mental illness to avoid the consequences of his acts.

Q I note that your examination of the defendant occurred almost two months later than the examination of Mr. Brown. From your experience, Dr. Greer, isn't it true, that patients sometimes improve dramatically with psychotropic medications--enough to seem logical and rational even when at an earlier time they were not?

A In my experience, I have observed a number of mentally ill patients improve dramatically when treated with medication. However, there is frequently a tendency for an individual whose associations were loose to remain somewhat tangential or circumstantial. This was not the case with Mr. Cory. Although he tended to be somewhat abstract, I observed no evidence of any underlying thought disorder.

Q No further questions.

THE COURT: Mr. James?

MR. JAMES: I have nothing further.

THE COURT: Would you care to make closing statements?

Closing Statement: Prosecution

MR. JAMES: May it please the court, members of the jury. I would like to thank you for the attention you have shown throughout the trial and I know you will spend the same attention on these closing arguments and the Court's instructions.

You have heard from three different individuals that Mr. Cory broke into the victims' house and struck Mr. Sands on the head. Two of them were able to identify Mr. Cory as the assailant, and the third provided evidence linking Mr. Cory with the crime. There can be no doubt that Mr. Cory did break into the Sands home and assault Mr. Sands.

You have also heard testimony to the effect that Mr. Cory was insane at the time of these events--that he did not know the nature and quality of his acts or if he did, that they were wrong. Yet the facts suggest something quite different. Mr. Cory carried a bottle into the home. According to Mr. Brown, he believed that bottle would make him invisible--undetectable. Now, why, if the defendant did not recognize the nature and quality of his acts or what he was doing was wrong, would a defendant need to carry a pop bottle to make him invisible?

You also heard Mr. Brown testify that Mr. Cory believed he was simply going to sleep in the Sands' home--his home. Now I ask you, why would any one climb through a bedroom window to sleep in their own house? Furthermore--why would he wander from bedroom to bedroom, looking for a place to sleep? Let me suggest that Mr. Cory was indeed going to rob Mr. and Mrs. Sands, that Mrs. Sands awakened at an inconvenient time, and that Mr. Cory assaulted Mr. Sands in trying to flee.

If, at the beginning of this case, you had any doubt about the guilt of Mr. Cory, then this evidence erases it.

THE COURT: Mr. Jackson?

Closing Statement: Defense

MR. JACKSON

Your honor, ladies and gentlemen, as you know, this is my last opportunity to speak to you. As Mr. James has done, I would like to thank you for your attention to the facts of this case. The most difficult part is yet to come--you will have to make your decision.

The State is very anxious to point out to you time and time again that the defendant, Mr. Cory broke into the home of John and Mae Sands to steal something (what has never been specified) and that in the process, he assaulted Mr. Sands.

We have not attempted to refute the acts of the defendant. There is no doubt that Mr. Cory entered the house or that Mr. Sands was injured in the struggle which ensued between him and the defendant. For a crime to have been committed, however, not only must acts have been committed, but there must have been intent. That is what is being disputed--not that Mr. Cory entered the Sands' home and assaulted Mr. Sands, but that he was aware of the nature and quality of his acts or that he knew what he was doing was wrong.

We have presented evidence that Mr. Cory did not know that what he was doing was wrong--that, in fact, he believed he was entering his own house to go to bed. He had no thought of stealing from the Sands'. The state has pointed out that Mr. Sands entered through the bedroom window--as though that proves his guilt. Let me ask you, ladies and gentlemen, if you were afraid--certain that the FBI and CIA were after you, wouldn't you hesitate to go in the front door--where you could be easily observed? Ladies and gentlemen, you know that there is nothing wrong with wanting to go home and sleep in your own bed.

And, what, may I ask you, would you do if, as you prepared to sleep, someone started screaming at you and then chasing you. I submit that you, whether sane or insane, like Mr. Cory would flee, and that were you attacked, you would fight for your life--just as Mr. Cory did. But Mr. Cory also did some things which were not sane--not attempting to open the door as he fled, carrying the pop bottle and making his bed on the roof of a house just a few blocks away, and sleeping soundly only shortly after the alleged crime.

After the court's instructions, you will be asked to make your decision. If, at that time, you have any reasonable doubt that, at the time of the offense, Mr. Cory knew the quality and nature of his act and the consequences thereof, you will find him not guilty by reason of insanity.

I am confident, that on the basis of the facts, you will have found, beyond a reasonable doubt that the defendant was insane and I trust that you will find the defendant, Harold Cory, not guilty by reason of insanity.

Thank you.

THE COURT: Now I'll tell you some of the rules you must follow in considering this case. I'll instruct you on the law, and it is your duty to follow the law.

It is also your duty to determine the facts. You must determine the facts only from the evidence produced in Court. You should not guess about any fact, and you must not be influenced by sympathy or prejudice.

You must not be concerned with any opinion you may feel that I have about the facts.

You are the sole judges of the facts of the case. You must take account of all my instructions on the law, and you are not to pick up one instruction or part of one and disregard the others.

Decide the case by applying the law and these instructions to the facts as you find them. You must find the facts from the evidence, and the evidence which you are to consider consists of testimony of witnesses.

At times, I have decided whether testimony should be admitted. When an objection to a lawyer's question was sustained you are to disregard the question and you are not to guess what the answer might have been.

In the opening and closing arguments, the lawyers have talked to you about the law and the evidence. What the lawyers say is not evidence, but it may help you to understand the law and the evidence. At the beginning of this trial, I read the document stating the charges. They are not evidence. You must not think a defendant is guilty just because he has been charged with a crime.

Evidence has been introduced to prove the insanity of the defendant. The word "insanity" as it is used in these instructions, does not include all forms of mental illness, but is limited to legal insanity which consists of such a defect of reason as to prevent the person from knowing the nature and quality of the acts he was doing, or, if he did know the nature and quality of such acts, that he did not know what he was doing was wrong.

You are to decide whether, at the time of the commission of the crime charged, the defendant was in such a state of mind that he did not know right from wrong or he did not know the quality and nature of his act and the consequences thereof.

The state must prove, beyond a reasonable doubt, the sanity of the defendant. If you find that the defendant did not know right from wrong, or if you find he did not know the quality and nature of his act and the consequences thereof, then he would be insane. It would then be your duty to find him not guilty by reason of insanity.

You must decide the accuracy of each witness' testimony, take into account such things as his ability and opportunity to observe, his memory, any motive or prejudices he might have and inconsistent statements he may have made.

Consider his testimony in light of all the evidence in the case. Then, base your decision on the facts of the case.



JACOB BROWN, Ph.D., having been first duly sworn to state the truth, the whole truth and nothing but the truth, testified on his oath as follows:

DIRECT EXAMINATION

BY MR. JACKSON

Q Please state your name for the record.

A Jacob Brown.

Q What is your employment, sir?

A I am a staff psychologist and professor on the staff of Arizona General Hospital in Tucson.

Q And how long have you been employed in that position?

A I will be completing my fifteenth year this spring.

Q Are you certified to practice psychology in the State of Arizona?

A Yes.

Q Have you written any articles or documents or books in connection with the subject of psychology, psychology and legal issues or forensic psychology, diagnosis, reliability, and subjects of that type?

A I've published two books and approximately twenty articles, book chapters, and book reviews.

Q Do some of these deal with the subject of the reliability of psychological diagnosis?

A Yes, some of them do.

Q Have you made a particular effort to study the subject of psychological conditions and responsibility?

A Yes I have.

Q And have you written on that subject also?

A Yes I have.

Q Have you studied on the subject of schizophrenia and responsibility?

A Yes. In fact, most of my writing deals with schizophrenia and responsibility.

Q And are you a member of the American Psychological Association?

A Yes, as well as Western Psychological Association and Arizona Psychological Association.

Q Have you made a particular study of forensic psychology?

A Yes, sir, I have made a long study--almost ever since I went into psychology more than 20 years ago. It has consisted of a study of the whole literature of the subject, including sociology, anthropology, current practices in this and other countries. I have written several articles and presented symposia on the subject.

MR. JAMES: May I voir dire?

THE COURT: You may voir dire.

Q (MR. JAMES) Mr. Brown -- it is true, you are not a doctor, is it not?

A I earned a Ph.D. in psychology from Yale. That involved four years of graduate school in which I studied human feelings, thoughts and behaviors almost exclusively. The Ph.D. is, in part, a research degree--so I researched and published three articles before leaving graduate school. Throughout graduate school, I worked half time in a mental health setting. After graduate school, I interned for a year in the state hospital associated with Harvard Medical School where I worked full time with patients. But I not a medical doctor--I have not gone to medical school.

Q How are you addressed in other settings?

A My clients and most professionals refer to me as Doctor.

Q And what special qualifications do you have in diagnosing and treating mental disorders.

A On my internship, I worked intensively with patients from all diagnostic categories, but concentrated primarily on schizophrenia. I was particularly interested in performing competency evaluations.

Q And what are they?

A I endeavor to determine if patients understand the proceedings against them and can assist their attorneys.

I have specialized in competency and insanity evaluations.

MR. JAMES: I Have nothing further.

DIRECT EXAMINATION (Resumed)

BY MR. JACKSON

Q Are you the same Dr. Jacob Brown who examined Harold Cory pursuant to the district court of Pima County, some time subsequent to August 3, 1978?

A Yes I am,

Q And what were your findings at that time?

A At that time, he was incompetent to stand trial.

Q What in your findings led you to the opinion that Mr. Cory was incompetent to stand trial?

A In simple terms, the client could not assist counsel in his defense. He could not communicate with his attorney.

Q And why is that?

A He demonstrated what we call "loosening of associations".

Q And what does that mean?

A Most individuals' thoughts stand in some relationship to each other. In a conversation, for example, an individual might describe a conflict at work and, in the process, remember a joke about someone who confronted a similar situation. That would be an association by similarity. Loose associations don't follow the usual pattern of being related by similarity or time sequence. They might be related by the sound of a word. World peace might be associated to piece of pie which becomes associated with geometry. Often, there is no apparent connection between ideas at all. As a consequence, their conversation is extremely difficult, sometimes impossible to follow.

Q And did you see Mr. Cory after that?

A I saw him for two one hour interviews on March 12 and 14 of this year. It would have taken longer, but he refused psychological testing.

Q Based upon your examination of Cory, Doctor, do you have an opinion, based on reasonable medical certainty, as to whether Harold Cory was suffering from a mental disease?

THE COURT: Mr. James, you may call your witness.

MR. JAMES: The State of Arizona calls Walter Greer, M.D.

WALTER GREER, M.D., having been first duly sworn to state the truth, the whole truth and nothing but the truth, testified on his oath as follows:

DIRECT EXAMINATION

BY: MR. JAMES

Q State your name and occupation please.

A My name is Walter Greer. I am a psychiatrist and professor on the staff of Arizona Psychiatric Consortium.

Q And how long have you worked in that position?

A Five years.

Q And prior to that time?

A I was a professor of psychiatry at Mclean/Bridgewater for 10 years. They are associated with Harvard Medical school.

Q Are you licensed to practice medicine in the State of Arizona.

A Yes. I also am licensed in Massachusetts.

Q Have you written any articles or documents or books in connection with the subject of psychiatry, forensic psychiatry, diagnosis, reliability, and subjects of that type.

A Yes. I have published approximately thirty articles on schizophrenia, and one book on forensic psychiatry.

Q And have you made a particular effort to study the subject of psychiatry or psychiatric conditions and responsibility?

A Yes. At least half of my work deals with that express problem.

Q Are you a member of any professional groups?

A I am a member of the American Psychiatric Association, American Medical Association and the American Board of Psychiatry, as well.

Q And what experiences qualify you as an expert on issues of insanity?

A At Bridgewater I worked in therapy and assessment primarily with the criminally insane. Since I have been at the Arizona Psychiatric Consortium, I have performed competency and insanity evaluations regularly.

Q And how many forensic evaluations have you done in the last 15 years?

A Somewhere around 500.

MR. JACKSON: May I voir dire?

THE COURT: Go ahead.

Q Fine. Dr. Greer, where did you study psychiatry?

A I studied medicine at Harvard Medical School. I interned and served my residency in psychiatry at the teaching hospital affiliated with Yale. Then I taught psychiatry at Harvard for several years.

Q Tell me, Dr. Greer, while you were studying medicine, how much time did you devote to the study of the mind?

A Relatively little. I had the usual courses in neurology, but there were few opportunities to study psychiatry. My specialization in psychiatry did not occur until my residency.

Q How long is a residency?

A Three years.

Q No further questions.

MR. JAMES:

Q When did you examine the defendant?

A On May 23, 1983.

Q And how long did you spend?

A Forty-five minutes.

Q Is that the length of a standard examination?

A Examinations vary considerably--from 30 minutes to five hours depending on the complexity of the case or on whether I am able to administer psychological tests. In the case of the defendant, the examination required only forty five minutes.

Q Does that affect the validity of your findings?

A I believe I was able to make an adequate assessment of this man's psychological functioning.

Q And what were your findings, Dr. Greer?

A On examination, Mr. Cory was extremely guarded and only marginally cooperative--He seemed somewhat fearful. He provided few details of his life. He would not discuss the case. His answers to most questions about himself, his background or his family were along the lines of "I don't know". He did not speak spontaneously or ask questions.

Q Dr. Brown testified that there was "loosening of associations", which made him difficult to understand. Are your findings consistent with that?

A No. I observed no loosening of associations. He was somewhat abstract, but not loose, tangential or circumstantial.

Q What about the emotional state of the defendant? Were his emotional responses normal?

A I did note some blunting of affect--that is, Mr. Cory demonstrated little variation in feeling regardless of content.

Q And is blunted affect indicative of schizophrenia?

A It can be associated with schizophrenia or any number of problems including depression. I have also observed blunted affect in highly intellectualizing people we would call "normal". Medications may also cause emotional expression to appear blunted. By itself, blunted affect is not diagnostic.

Q What about delusions? Did you notice any evidence of unusual beliefs such as the pop bottle which supposedly made him invisible?

A I found no evidence of delusions, illusions or hallucinations. He would not talk about the pop bottle, however.

Q And what is your opinion about this client's mental condition?

A He is not suffering from a mental illness at the present time. His ability to reason and to control his conduct is not impaired.

Q No further questions.

CROSS EXAMINATION

BY MR. JACKSON

Q Dr. Greer, your observations were quite different from those of Dr. Brown. How do you account for the difference in your perceptions?

A I cannot speak for what Dr. Brown observed. I can only describe my own observations, and add my suspicion that Mr. Cory was faking mental illness to avoid the consequences of his acts.

Q I note that your examination of the defendant occurred almost two months later than the examination of Mr. Brown. From your experience, Dr. Greer, isn't it true, that patients sometimes improve dramatically with psychotropic medications--enough to seem logical and rational even when at an earlier time they were not?

A In my experience, I have observed a number of mentally ill patients improve dramatically when treated with medication. However, there is frequently a tendency for an individual whose associations were loose to remain somewhat tangential or circumstantial. This was not the case with Mr. Cory. Although he tended to be somewhat abstract, I observed no evidence of any underlying thought disorder.

Q No further questions.

THE COURT: Mr. James?

MR. JAMES: I have nothing further.

## APPENDIX B

### Insanity Defense Opinion Survey

Instructions: Please circle the number that corresponds most closely to your PRESENT feelings/beliefs. Your responses should reflect your feelings now that you have read the case.

1 = strongly agree, 5 = indifferent, 9 = strongly disagree.

1. If I had been a juror when John Hinckley Jr. was tried for the attempted assassination of President Reagan I would have advocated he be punished.

Strongly agree 1 2 3 4 5 6 7 8 9 Strongly disagree

2. The insanity defense is frequently misused.

Strongly agree 1 2 3 4 5 6 7 8 9 Strongly disagree

3. I believe the insanity defense should be abolished.

Strongly agree 1 2 3 4 5 6 7 8 9 Strongly disagree

4. There are cases in which the insanity defense is appropriately used to assure that treatment will be provided instead of punishment when an offender is mentally ill.

Strongly agree 1 2 3 4 5 6 7 8 9 Strongly disagree



NOTE: Questions 1 and 2 comprised the punishment factor, and questions 3 and 4 comprised the treatment factor.

Factor Loadings appear below:

ITEM #	FACTOR 1	FACTOR 2
1	.770	-.269
2	.858	.000
3	.445	-.744
4	.000	.928

## APPENDIX C

### Witness Evaluation Form

Please circle the number along the side that most closely corresponds to your perception of the witness.

1. honest	1	2	3	4	5	6	7	8	9	dishonest
2. understandable	1	2	3	4	5	6	7	8	9	incomprehensible
3. subjective	1	2	3	4	5	6	7	8	9	objective
4. unbelievable	1	2	3	4	5	6	7	8	9	believable
5. skilled	1	2	3	4	5	6	7	8	9	unskilled
6. unpersuasive	1	2	3	4	5	6	7	8	9	persuasive
7. reasonable	1	2	3	4	5	6	7	8	9	unreasonable
8. uninformed	1	2	3	4	5	6	7	8	9	informed
9. knowledgable	1	2	3	4	5	6	7	8	9	unknowledgable
10. intelligent	1	2	3	4	5	6	7	8	9	unintelligent

NOTE: This is how the factors broke down in the studies.

	STUDY 1	STUDY 2
Trustworthiness	honest unbelievable unpersuasive reasonable	honest unbelievable reasonable
Expertise	skilled uninformed intelligent	skilled knowledgable intelligent knowledgable

## APPENDIX D

### Credibility Opinion Survey

Instructions: Please circle the number that corresponds most closely to your feelings/beliefs. 1 = strongly agree, 5 = indifferent, 9 = strongly disagree. Your responses should reflect your current feelings.

1. Psychiatrists (M.D.'s) are better qualified than psychologists (Ph.D.'s) to testify on the issue of insanity.

Strongly agree 1 2 3 4 5 6 7 8 9 Strongly disagree

2. A psychiatrist (M.D.) is better prepared by training and experience than a psychologist (Ph.D.) for diagnosing and treating mental illness.

Strongly agree 1 2 3 4 5 6 7 8 9 Strongly disagree

3. Psychologists (Ph.D.'s) are more knowledgeable than psychiatrists (M.D.'s) about diagnosis of mental illness.

Strongly agree 1 2 3 4 5 6 7 8 9 Strongly disagree

4. If I needed a mental health expert to treat my father, mother, son or daughter I would prefer a psychologist (Ph.D.) to a psychiatrist (M.D.)

Strongly agree 1 2 3 4 5 6 7 8 9 Strongly disagree

NOTE: Items 1 and 2 comprised Factor 1, while 3 and 4 comprised Factor 2. Factor loadings follow:

ITEM #	FACTOR 1	FACTOR 2
1	.888	.000
2	.809	.000
3	.000	.846
4	.000	.813

## APPENDIX E

### Memory Test

Answer the following questions true or false.

- T F 1. Harold Cory was charged with second degree burglary and assault by means of force likely to produce great bodily injury.
- T F 2. According to Mrs. Sands, there was a full moon the night of the offense.
- T F 3. The defense must prove beyond a reasonable doubt that Mr. Cory was insane.
- T F 4. Mr. Cory was previously incompetent to stand trial.<sup>d</sup>
- T F 5. Mr. Sands suffered a concussion in the offense.
- T F 6. Mr. Cory believed the FBI, CIA, and police wanted to lock him up.<sup>d</sup>
- T F 7. The police officer, Pete Gray, testified that it rained the night of the offense.
- T F 8. Dr. Brown was being paid \$85 per hour, his usual hourly rate.
- T F 9. Mr. Cory hit Mr. Sands with a crowbar.<sup>d</sup>
- T F 10. According to Dr. Brown, Mr. Cory thought he owned the Sands' home.<sup>d</sup>
- T F 11. Mr. Cory was stealing something from the Sands' home.<sup>dp</sup>
- T F 12. The defendant left through the bedroom window.<sup>d</sup>
- T F 13. Mr. Sands frequently had trouble sleeping because of his severe ulcer.
- T F 14. The state must prove beyond a reasonable doubt that Mr. Cory was sane and committed the offense.
- T F 15. According to Dr. Brown, one of Mr. Cory's early symptoms was withdrawal from social activities.<sup>d</sup>

- T F 16. Dogs led the police officers to where the defendant hid.
- T F 17. The paramedics arrived about five minutes before the police.
- T F 18. As jurors, you were told to base your decisions on all of the facts of the case and only the facts.
- T F 19. In opening and closing statements, the lawyers presented evidence.
- T F 20. The defendant was able to tell the police about the offense as soon as he received his Miranda warning.<sup>P</sup>
- T F 21. Blunted affect is always evidence of schizophrenia.<sup>P</sup>
- T F 22. According to the testimony of Dr. Greer, Mr. Cory was probably faking mental illness.<sup>P</sup>
- T F 23. If Mr. Cory carried the pop bottle when he broke into the Sands' home because it made him invisible, that would suggest that he knew what he was doing was wrong.<sup>dp</sup>
- T F 24. A psychologist's training includes medical school.
- T F 25. There are two elements to any criminal offense--the act itself, and the intent.

NOTE: d = defense fact  
P = prosecution fact

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