EFFECTS OF PSYCHOLEGAL KNOWLEDGE ON DECISION-MAKING BY MOCK JURIES

Jerry I. Shaw
Paul Skolnick

California State University, Northridge

This study examined the effects of psycholegal knowledge on a mock jury decision-making task. Psycholegal knowledge was obtained by completion of a university course on psychology and law focusing on jury decision-making. It was predicted that psycholegal knowledge would enhance juror competence, motivation, and satisfaction with participation in the legal process. Mock jurors who had taken the course were compared with those who had not. Both groups were shown a videotape of a rape trial and participated in jury deliberations. Jurors trained in psycholegal knowledge voted for acquittal more often than those who were not. Additionally, trained jurors were more satisfied, were more confident that their jury reached a correct verdict, and believed more that their jury's decision was based on the evidence presented than did untrained jurors. Content analysis of jury deliberations found that trained jurors were more task oriented and focused on relevant evidence than untrained jurors. The feasibility of implementing a juror training program prior to jury service was discussed.

The American jury system has come under fire in recent years in light of highly publicized and unpopular verdicts in cases such as Rodney King, Reginald Denny, and O.J. Simpson. Investigations by psychologists into jury decision-making have documented serious and numerous flaws in the present Sixth Amendment right to a jury trial by one's peers. These problems include, damages in civil cases (Robbennolt, Penrod, & Heuer, 1999), jurors' failure to comprehend judges' instructions (Shaw & Skolnick, 1995), jurors' preconceptions from prejudicial pretrial publicity that

---

Correspondence concerning this article should be addressed to Dr. Jerry I. Shaw, Department of Psychology, California State University, Northridge, Northridge, CA 91330, USA; e-mail: **jerry.shaw@csun.edu**

may undermine their ability to be impartial (Moran & Cutler, 1997; Shaw & Skolnick, 2004), and jurors' inability to fully understand and accurately assess the credibility of evidence presented to them by eyewitnesses and by expert witnesses (McAuliff, Nemeth, Bornstein, & Penrod, 2003; Schklar & Diamond, 1999; Skolnick & Shaw, 2001).

Psychologists have extensively researched many of these problems. For example, several studies have shown that many jurors do not fully understand their judicial instructions. Elwork, Sales, and Alfini (1977) reported that only 40% of the jurors they investigated fully comprehended the judge's instructions. Attempts to rewrite standard pattern instructions in simpler language have improved juror comprehension of procedural issues, such as the presumption of innocence (Charrow & Charrow, 1979; Elwork & Sales, 1985), but do little to assist juror understanding of substantive issues, such as the definition of reasonable doubt (Horowitz & Kirkpatrick, 1996; Kagehiro & Stanton, 1985). Moreover, some instructions may backfire, resulting in effects opposite to those intended. Although not all studies concur, several have found that judicial admonitions to disregard inadmissible evidence can influence jurors' decisions in the direction of the excluded evidence (Tanford, 1990; Wolf & Montgomery, 1977).

A spate of evidence has found that jurors can be extensively biased when exposed to prejudicial pretrial publicity (Hoiberg & Stires, 1973; Kramer, Kerr & Carroll, 1990; Otto, Penrod & Dexter,1994). In their meta-analysis of 44 relevant studies, Steblay, Bersirevic, Fulero, and Jimenez-Lorente (1999) note that pretrial publicity exposure yields a significant overall increase in guilty judgments, especially when pretrial assessments of juror attitudes are made and when emotion-arousing or heinous crimes are involved.

One of the most telling problems faced by jurors in the courtroom is their typical lack of familiarity with the many ways that eyewitnesses are vulnerable to a variety of perceptual and memory errors, such as the "weapon focus" effect (Steblay, 1992), "unconscious transference" (Buckhout, 1974), and the tenuous re-

lationship between witness confidence and accuracy (Bothwell, Deffenbacher, & Brigham, 1987).

Although jurors are required to make a dichotomous determination as to guilt or innocence, rather than a probabilistic determination, some researchers have expressed concerns about the ability of jurors to reason about scientific evidence. McAuliff et al. (2003) have recently commented that although science and technology have become increasingly prominent in the courtroom, there is only scant evidence (see Smith, Penrod, Otto, & Park, 1996) to demonstrate that jurors and other legal decision-makers are able to adequately incorporate such information into their decision-making processes. More generally, both mock jurors and actual jurors tend to underutilize probabilistic information (Heuer & Penrod, 1994; Schklar & Diamond, 1999), have difficulty understanding expert statistical testimony (Faigman & Baglioni, 1988; Goodman, 1992), neglect to consider sample size when drawing conclusions from scientific data (McAuliff & Kovera, 2001) and may not recognize basic scientific flaws such as missing control group information (Mill, Gray, & Mandel, 1994).

Complementing the empirical research of psychologists are numerous calls for jury reforms recommended by legal scholars, journalists, and social commentators. Among these are the need to educate jurors about the legal system and their role as a juror (Sowell, 1995); accepting non-unanimous verdicts in criminal cases (Babcock, 1995); permitting jurors to ask questions and take notes (Heuer & Penrod, 1988; Penrod & Heuer, 1997); providing jurors with written instructions during deliberations, training jurors how to deliberate, and permitting brief summaries by attorneys at the end of each day's evidence (Strawn & Musterman, 1982).

The many suggestions proffered both by psychologists and reformers include the need to improve juror competence by recruiting better educated, more experienced, and well-trained jurors (*cf.* Wrightsman, Kassin, & Willis, 1987). A possible source of such competence is participation in a university course on psychology and the law. Such coursework has proliferated in recent years with the emergence of 15-20 textbooks in the past two decades and un-

dergraduate courses offered on many college campuses. The web site of the American-Psychology Law Society (http://www.unl.edu/ap-ls/) lists 10 journals and 30 graduate training programs devoted to this emerging discipline. Thus, many individuals already have been exposed to psycholegal training and more increasingly will acquire this type of knowledge by participation in such academic programs.

A question of interest to the present discussion is whether psycholegal training can enhance the competence and motivation of individuals who serve as jurors in our legal system. That this may be the case is suggested by Nisbett (1993) who reviews evidence that shows that scientific education can improve the ability of laypersons to reason logically about scientific problems. For example, statistical training improved students' numerical reasoning skills (Fong, Krantz, & Nisbett, 1986) and undergraduates who took methods courses were better able to apply relevant principles to a variety of problems than were others who did not have such coursework (Lehman & Nisbett, 1990). In light of such findings, it is reasonable to propose that psycholegal training may yield similar benefits in the performance of those individuals who are called upon to serve as jurors.

The present research attempts to evaluate the merit of this proposal by comparing the performance and motivation of mock jurors with or without psycholegal training who participated in a simulated criminal case. Trained participants had completed an upper-division course in psychology and law that emphasizes legal procedures and jury decision-making, whereas untrained participants were comparable students who had not taken the course. It was predicted that trained mock jurors would score higher on legal knowledge and juror competence, and on measures of motivation and satisfaction, than those who lacked psycholegal training. Consequently, the deliberations of trained mock jurors should be more task oriented and more focused on relevant evidence than the deliberations of their untrained peers. Because the criminal case used in the present study contained culpatory evidence against the defendant that was contradictory, no prediction was made regarding the effects of psycholegal training on mock jury verdicts.

METHOD

Participants

A total of 56 jury-eligible, upper division students at California State University, Northridge participated in the experiment. More than 90% of the participants were psychology majors, ranging in age from 19 to 52 with a mean age of 26. Forty-two participants were women and 14 were men, representing a broad diversity of ethnic and racial backgrounds.

Overview and Design

The research was conducted as a pretest-posttest control group design. A trained group of 27 participants had recently completed a course in psychology and law and an untrained group of 29 comparable participants had not taken the course. Because it was not possible to randomly assign participants to the trained and untrained groups, care was taken to ensure that both groups were equivalent in terms of age range, major, gender, ethnic diversity, and prior jury service. The untrained participants served as a control group to assess the effects of training on mock jury decision-making. The course was taught by one of the authors and included topics on the court system, law enforcement, characteristics of criminals and victims, competency determinations, insanity rules, due process, forensic investigations, expert witnessing, sentencing and corrections. Additionally, the course covered laboratory simulations and field studies of eyewitness reliability, jury selection, jury composition, and jury decision-making.

Both groups were administered a 50-item legal questionnaire designed to measure their knowledge of the structure and process of the American legal system. They also indicated their opinions about the contemporary jury system. All participants were shown a one-hour videotape of a simulated rape trial that concluded with the judge's instructions to a hypothetical jury. Afterwards, individual juror verdicts and, if the defendant was judged guilty, punishment preferences, were assessed on a juror verdict form. Participants were then randomly assigned to be members of mock juries created separately within each group. Each jury was

sent to its own cubicle where the members deliberated to reach a mock jury verdict. A maximum of 40 minutes was permitted for the deliberations. When they were finished, all participants completed a 14-item posttest questionnaire that assessed their opinions of the mock jury deliberations and of the contemporary American jury system.

Procedure and materials

The experiment was conducted in three sessions during regularly scheduled class periods. In session 1, all participants were administered the pretest legal questionnaire in a classroom setting. The questionnaire consisted of 50 multiple-choice items drawn from instructor's manuals for three textbooks used in psychology and law courses.[1] Questions concerned the structure and regulations of the American legal system and the processes by which it operates. Examples of topics covered included jury size, qualifications for jury service, standards of proof, legal terminology, jury deliberations, the roles of judges and juries, and competency determinations.

The pre-test legal questionnaire also contained additional items requesting participants to make several evaluative judgments. They were asked to indicate the extent they agreed that the jury system is (a) fair, (b) effective, and (c) should be reformed, all on 5-point scales ranging from (1) *Strongly disagree t*o (5) *Strongly agree*. They were also asked to indicate how many reforms they would advocate from a list of seven commonly recommended reforms.[2] Another item asked participants to rate their

[1] The three instructor manuals used were drawn from Bartol and Bartol (1994), Horowitz, Willging and Bordens (1998), and Wrightsman, Nietzel and Fortune (1998). None of the questions were drawn from the instructor's manual that was used in the psychology and law course taken by the trained participants.

[2] Reforms included (a) trained, professional jurors should replace lay jurors; (b) jurors should be allowed to take notes, (c) jurors should be allowed to question attorneys and witnesses in court, (d) jurors should be provided with a written copy of the judge's instructions, (e) nonunanimous verdicts should be allowed, (f) juries less than 12 persons should be allowed, and (g) jurors should be allowed to hear brief summaries by attorneys at the end of each day's evidence.

motivation to serve on a jury on a scale from (1) *Strongly unmotivated* to (5) *Strongly motivated*. They were also asked to indicate what they would do if they received a jury summons? Possible responses included, (a) not respond, (b) use an excuse to get out of it, (c) request a deferral to a later date, (d) reluctantly serve, and (e) enthusiastically serve. A final item requested demographic information including gender, age, race, citizenship, and past criminal record.

In session 2, several days after completing the pretest legal questionnaire, trained and untrained mock jurors were separately shown a videotape of a rape trial. The videotape was 71 minutes long and depicted a case in which a university coed alleged that she had been forcibly raped at a fraternity party by one of the fraternity members. The defendant admitted that he had sexual relations with the coed but asserted that it was by mutual consent. Testifying for the prosecution were three witnesses, including the alleged victim, a male friend who attended the party, and an expert witness from a rape trauma center. The defendant and one of his fraternity brothers testified for the defense. The witnesses' testimony conflicted, leading to alternative plausible scenarios of the events in question. In the end, the case hinged on the defendant's *vs.* the victim's word. The videotape was ended just prior to the judge's instructions, which were to be delivered to the jury depicted in the tape.

At this point, all mock jurors were given a juror verdict form which assessed their opinions as to whether the defendant was "guilty," or "not guilty." For those indicating a guilty judgment, they were additionally asked to indicate the level of punishment they would recommend on a 9-point scale, ranging from (1) *Minimum punishment prescribed by law* to (9) *Maximum punishment prescribed by law.* All mock jurors also rated the strength of the evidence presented against the defendant on a 9-point scale, ranging from (1) *Weak* to (9) *Strong.* Finally, personal evaluations of both the defendant and the alleged rape victim were assessed on 10 personality traits, including trustworthiness, likeability, competence, ethics, considerateness, attractiveness, intelligence, warmth, sensitivity, and industriousness. Each trait was rated on a 9-point

scale with higher ratings indicating more positive evaluations. Ratings for the 10 traits were averaged for each mock juror to yield a personal evaluation score.

In session 3, held two days later, trained and untrained mock jurors met separately in their classrooms and were shown the jury instructions depicted on the videotape by the judge. Afterwards, they were randomly assigned to mock juries, ranging in size from 3-5 persons. This procedure resulted in seven trained and six untrained juries. They were then escorted to separate deliberation rooms and instructed to choose a foreperson and deliberate until a verdict was reached. A limit of approximately 40 minutes was placed on their deliberations to accommodate class schedules. Hung juries were not accepted prior to the end of the deliberation period. If hung at the end of the allotted time period, the distribution of votes was recorded. If a verdict was reached in the allotted time, it was indicated on a jury verdict form signed by all members of the jury. Jury deliberations were tape recorded for subsequent content analyses of the decision-making processes.

After deliberations were ended, the mock jurors returned to their classrooms and completed a post-trial legal questionnaire. To permit pre-trial and post-trial comparisons, the same questions were asked as on the pre-trial legal questionnaire, regarding the extent they agreed that the jury system is (a) fair, (b) effective, and (c) should be reformed. As before, they were also asked to indicate how many reforms they would advocate from a list of seven commonly recommended reforms. Another item asked participants to rate their motivation to serve on a jury. Once again, they were also asked to indicate what they would do if they received a jury summons.

Additional questions on the post-trial questionnaire tapped mock jurors' perceptions of the deliberation process. On 5-point scales, ranging from (1) *Strongly disagree* to (5) *Strongly agree*, they rated the extent to which (a) all members of their jury had a chance to have their say, (b) their jury did a good job, (c) their jury's decision was based on the evidence presented, and (d) their jury's decision was based on emotions or feelings. They also indi-

cated how satisfied they were with their jury's deliberations on a 5-point scale from (1) S*trongly dissatisfied* to (5) *Strongly satisfied*. Another item asked how confident they were their jury reached the correct verdict rated on a 5-point scale from (1) *Extremely unconfident* to (5) *Extremely confident.* A final item asked them to estimate the probability that the defendant committed the crime from 0% to 100%.

A set of categories was developed to perform content analyses on the mock jury deliberations that were recorded on audiotape. The categories included:

1. *Task process*. Comments that refer to the deliberation task itself, such as asking to take a vote or choosing a foreperson.
2. *Interpersonal process*. Comments that refer to group relationships, such as pressures to conform or expressions of sentiment.
3. *Case evidence.* Comments that refer to the evidence presented in the case, such as a cut on the victim's head or witness testimony regarding the way the victim fell.
4. *Witness credibility.* Comments that refer to the credibility of witnesses, such as doubting or believing their statements.
5. *Personal opinions.* Comments that refer to personal beliefs, such as alluding to probable guilt or innocence or evaluations of the defendant's character.
6. *Law and judicial instructions.* Comments that refer to legal aspects of the case or the judge's instructions, such as the legal definition of rape.
7. *Self-comparisons.* Comments that refer to the self as a comparison standard, such as stating what one would do if in the same situation as the victim or defendant.
8. *Extraneous or irrelevant.* Comments that are not case related, such as referring to the weather or sporting events.
9. *Uncodable.* Comments that were garbled, uninterpretable, or did not fit any other category.

RESULTS

One-way analyses of variance were conducted comparing trained and untrained mock jurors on several dependent variables (see Table 1).[3] A number of findings were consistent with our hypothesis that mock jurors with psycholegal training would demonstrate more legal knowledge and juror competence than mock jurors who lacked such training. First, trained mock jurors scored higher (M = 30.6) than did untrained mock jurors (M = 25.1) on the pretest legal questionnaire measuring their knowledge about the structure and process of the legal system, $F(1, 54) = 11.5$, $p < .001$. Second, the trained mock jurors reported that their juries' verdicts were based more on the evidence than did untrained mock jurors (Ms = 4.7 and 4.1 respectively); $F(1, 53) = 3.9$, $p < .05$.

The hypothesis that trained jurors would have higher levels of satisfaction and motivation was confirmed by the following findings. First, trained mock jurors were more satisfied with their jury deliberations (M = 4.6) than untrained jurors (M = 3.9); $F(1, 53) = 7.4$, $p < .009$. Trained jurors also asserted that all jury members "had their say" in the jury deliberations to a greater extent than did untrained jurors, (Ms = 4.9 and 4.5 respectively); $F(1, 53) = 4.1$, $p < .05$. When asked to rate the performance of their jury, trained mock jurors rated their performance higher (M = 4.8) than did untrained mock jurors (M = 4.3); $F(1, 53) = 7.3$, $p <. 009$. Trained jurors were more confident than untrained jurors that they reached the correct verdict (Ms = 4.3 and 3.4 respectively); $F(1, 53) = 13.0$, $p < .001$. Finally, when asked what they would do in the future if they received a summons to jury duty, trained mock jurors reported that they would be more willing to serve than did untrained jurors (Ms = 3.0 and 2.4 respectively); $F(1, 53) = 3.6$, $p<.07$

[3] The degrees of freedom vary slightly among the analyses reported because not all participants answered all questions. Additionally, one participant who completed all the predeliberation measures did not participate in the mock jury deliberations.

Table 1.
Summary of Analyses of Variance Comparing Trained and Untrained Jurors on Legal Knowledge, Satisfaction, and Motivation

Dependent measure	Source	SS	df	MS	F-ratio	Significance level
Legal Knowledge	Between	423.50	1	423.50	11.5	p < .001
	Within	1987.86	54	36.81		
	Total	2411.36	55			
Verdict based on evidence	Between	1.34	1	1.34	3.9	p < .05
	Within	18.04	53	.34		
	Total	19.38	54			
Satisfaction with deliberations	Between	6.04	1	6.04	7.4	p < .009
	Within	43.35	53	.82		
	Total	49.39	54			
All jurors had a "say"	Between	2.09	1	2.09	4.1	p < .05
	Within	28.82	53	.51		
	Total	30.91	54			
Jury did a good job	Between	3.35	1	3.35	7.3	p < .009
	Within	24.18	53	.46		
	Total	27.53	54			
Confident in correct verdict	Between	11.19	1	11.19	13.0	p < .001
	Within	45.61	53	.86		
	Total	56.80	54			
Willing to serve in future	Between	7.13	1	7.13	3.6	p < .07
	Within	103.82	53	1.96		
	Total	111.95	54			

Juror training yielded more acquittal judgments. As can be seen in Table 2, trained jurors rendered the opinion that they would vote not guilty to a greater extent than untrained jurors, both before deliberations, X^2 (1, N=56) = 9.07, $p < .003$, and after deliberations, X^2 (1, N=55) = 10.61, $p < .001$. The distribution for trained jurors before deliberations was “Not guilty” = 21, “Guilty” = 6, whereas for untrained jurors it was “Not guilty” = 11, “Guilty” = 18. The distribution of opinions for trained jurors after deliberations was “Not guilty” = 26, “Guilty = 1”, whereas for untrained jurors it was “Not guilty” = 17, “Guilty” = 11.

Although the actual jury verdicts did not reliably differ for trained and untrained juries, a nonsignificant trend consistent with individual juror opinions was nonetheless observed, X^2 (2, N=13) = 4.05, $p < .16$. The fact that these results did not attain conventional levels of significance may be due to the small number of ju-

ries that deliberated (N = 13). As shown in Table 3, the distribution of verdicts for trained juries was "Not guilty" = 6, "Guilty" = 0, "Hung" = 1, whereas for untrained juries it was "Not Guilty" = 2, "Guilty = 1", and "Hung" = 3. In line with both their individual opinions and jury verdicts, trained mock jurors had a higher personal evaluation of the defendant than did untrained jurors, 4.8 vs. 4.2; $F(1, 54) = 4.9$, $p < .04$.

Table 2
Effects of Deliberation and Psycholegal Knowledge on Individual Juror Opinions

		Juror opinions	
Time	Psycholegal knowledge	Not guilty	Guilty
Predeliberation	Trained jurors	21	6
	Untrained jurors	11	18
Postdeliberation	Trained jurors	26	1
	Untrained jurors	17	11

Table 3
Effects of Psycholegal Knowledge on Mock Jury Verdicts

		Mock Jury Verdict		
Psycholegal knowledge	Not guilty	Guilty	Hung	Totals
Trained juries	6	0	1	7
Untrained juries	2	1	3	6
Totals	8	1	4	13

Several additional findings were obtained that relate to the effects of jury deliberations. First, Table 2 shows that deliberations increased the frequency of "Not guilty" juror opinions. Both trained and untrained mock jurors voted "Not guilty" after deliberations to a greater extent than before deliberations, X^2 (1, N=111) = 5.60, $p < .02$. Two-way analyses of variance were conducted on juror training (trained *vs.* untrained) and timing (pre-deliberations *vs.* post-deliberations) on the dependent variables of number of

jury reforms advocated and motivation to serve on an actual jury. All jurors (both trained and untrained) advocated a greater number of jury reforms after they participated in the mock jury deliberations than they did before deliberations (*Ms* = 3.2 and 2.6 respectively); $F(1, 50) = 12.0$, $p<.001$. Additionally, there was a significant interaction between juror training and timing such that trained jurors increased their motivation to serve on an actual jury after they had participated in mock jury deliberations, whereas untrained jurors decreased their motivation to serve after having deliberated, $F(1, 50) = 6.2$, $p<.02$. Means for trained jurors before and after deliberations were 2.6 and 3.0; means for untrained jurors before and after deliberations were 2.7 and 2.3. No other juror opinion analyses were significant.

A content analysis was performed on the jury deliberation data. Because two tapes did not record during jury deliberations, these analyses are based on five trained and six untrained juries. A research assistant rated the audio taped jury deliberations by assigning each juror statement to one of the predetermined categories described earlier. To ascertain interrater reliability, a second assistant independently rated the same tapes. The interrater reliability coefficient was r =.83.

The amount of time that juries deliberated varied between 6 ½ and 40 minutes with an average deliberation time of 28 minutes. Although trained mock juries' deliberations were shorter (M = 23.6) than untrained mock juries' (M = 31.6), this difference was not statistically significant. Because lengthier jury deliberations produce more codable data, deliberation time was used as a covariate in the content analyses. One way analysis of variance was performed on each content analysis category.

It had been predicted that the deliberations of trained mock juries would be more task oriented and more focused on relevant evidence than the deliberations of their untrained peers. Relevant data are shown in Table 4 and Figure 1. Consistent with these expectations, trained mock juries made more task process comments (M = 13.7) than did untrained mock juries (M = 5.4); $F(1, 9) = 7.7$, $p < .025$). Also, trained mock juries made more interpersonal

process comments (M = 61.1) than did untrained mock juries (M = 20.7); F (1, 9) = 24.3, $p < .001$. Trained mock juries made more references to case evidence (M = 56) than did untrained mock juries (M = 45); F(1, 9) = 7.7, $p < .025$. Finally, trained mock juries made more self comparisons (M = 15.8) than did untrained mock juries (M = 4.4); F(1, 9) = 10.9, $p < .01$. No other findings from the content analysis were significant.

DISCUSSION

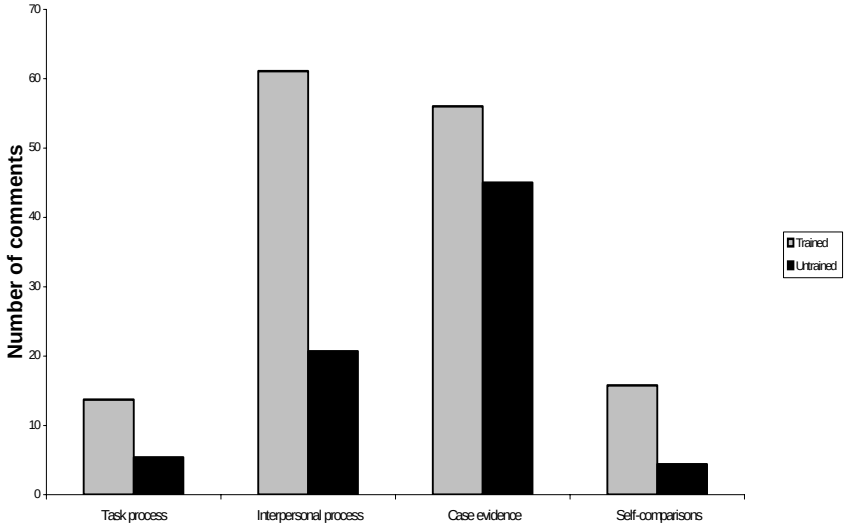
Consistent with our hypotheses, we found evidence that psycholegal knowledge may be helpful, insofar as it is associated with increased legal knowledge and juror competence, as well as satisfaction, motivation to serve, and quality of the deliberation process. Participants who had recently completed an upper division course in psychology and law, in contrast to those who did not, demonstrated greater knowledge about the structure and

Table 4
Summary of Analyses of Variance Comparing Trained and Untrained Jurors on Deliberation Process

Dependent Measure	Source	SS	df	MS	F-ratio	Significance Level
Task process	Between	181.50	1	181.50	7.7	p < .025
	Within	213.56	9	23.73		
	Total	395.06	10			
Interpersonal process	Between	4410.43	1	4410.43	24.3	p < .001
	Within	1634.11	9	181.57		
	Total	6044.54	10			
Case evidence	Between	301.26	1	301.26	7.7	p < .025
	Within	350.11	9	38.90		
	Total	651.37	10			
Self-references	Between	329.14	1	329.14	10.9	p < .01
	Within	270.99	9	30.11		
	Total	600.13	1			

Figure 1.
Content Analysis of Mock Jury Deliberations

Jury Deliberations



process of the American legal system, and believed that their mock jury verdicts were based more on the evidence presented. Additionally, they were more satisfied with their mock deliberations, believed more strongly that all members of their jury had an opportunity to contribute to the final verdict, asserted that they did a better job, and had more confidence in their jury's verdict. Evidence was also obtained that trained mock jurors would respond more favorably to a jury summons than would their untrained counterparts. Finally, a content analysis of jury deliberations showed that trained mock juries were more task oriented and more focused on relevant evidence than untrained mock juries.

Several possible explanations exist for the finding that trained mock jurors were more highly motivated and satisfied with their jury deliberations than were untrained mock jurors. Exposure to psycholegal information may have directly produced this result by enhancing mock jurors' interest in and knowledge about the legal system in general and the jury process in particular. Alternatively, because untrained mock jurors were somewhat less likely to reach a unanimous verdict in their deliberations, their lower satisfaction and motivation to participate may reflect the unpleasantness of disagreement and the frustration of not reaching a defini-

tive conclusion. This latter hypothesis is supported by the finding that deliberating decreased motivation to serve on an actual jury among untrained participants, whereas it increased motivation to serve among trained participants. Regardless of which hypothesis is correct, the end result would nonetheless be the same. Directly or indirectly, possessing relevant psycholegal information appears to enhance juror satisfaction and motivation. However, an alternative to either of these hypotheses is that differences in initial motivation and satisfaction between trained and untrained mock jurors may be explained by selection bias instead of the training conditions. That is, the use of intact classes resulted in participants being self-selected into the trained and untrained treatment groups. Random assignment was not possible because the authors could not control student enrollment in their classes. To rule out this possibility, future research on the effects of training in psycholegal knowledge will benefit from the controls of a true experiment, including random assignment.

The jury deliberations indicated that trained mock jurors were more focused on the task at hand, as evidenced by the fact that they made more comments pertaining to case evidence, the task, and interpersonal processes involved in reaching a verdict. Additionally, trained jurors made more self-comparisons than did untrained jurors. Although it is not clear why they did so, such self-comparisons may have assisted the trained juries to more effectively reach their verdict, insofar as research on the self-reference effect suggests that information that is related to the self is processed more deeply and recalled more efficiently (Higgins & Bargh, 1987; Klein & Loftus, 1988).

A limitation to the present study is that only a single case was used in which the evidence against the defendant was contradictory. In this instance it was found that trained mock jurors acquitted the defendant more often than did untrained mock jurors.[4]

[4] Insofar as there is no objective criterion as to the defendant's guilt or innocence (*e.g.*, independent evidence of actual guilt, or a real jury verdict with which to compare), it cannot factually be determined if the increased acquittal opinions of the trained mock jurors were more or less correct than those of the untrained mock jurors.

One explanation for this finding is that psycholegal knowledge may produce a tendency to become "defendant friendly." That is, trained mock jurors may simply adopt a higher threshold to vote for conviction since their education included exposure to the many reasons why eyewitness testimony may be fallible, as well as other factors that have been shown to bias jury decision-making. However, an alternative possibility is that psycholegal knowledge increases juror competence. Given the contradictory evidence against the defendant, trained mock jurors may have been more skeptical than untrained jurors and consequently, may have had more "reasonable doubt". To distinguish between the "competence" and "defendant friendly" explanations, a study needs to be conducted that uses two variations of the same case – one in which the evidence meets the "reasonable doubt" standard and one in which it does not. If psycholegal knowledge produces competent jurors, then trained jurors will vote for conviction more often than untrained jurors when the case evidence meets the standard of proof, but vote for acquittal more often than untrained jurors when the case evidence fails to meet the relevant standard of proof. Alternatively, if psycholegal knowledge produces "defendant friendly" jurors, then trained jurors will vote for acquittal more often than untrained jurors whether or not the case evidence meets the standard of proof. The authors are currently planning a follow up study investigating these issues.

A different concern about the present study is the ability to generalize the results from the laboratory setting in which they were obtained to an actual jury trial. The present findings are limited by the facts that the mock jurors were college students, responding to videotaped materials pertaining only to a single case. These and other similar limitations have often been a subject of controversy among jury researchers. Relevant concerns about the utility of laboratory simulation jury studies were discussed in an early series of articles (see Diamond, 1979), and the debate has continued over the years (Diamond, 1997). However, the current study's ecological validity is enhanced by the fact that participants were responding to more realistic video materials than the usual written materials and actually deliberated in addition to rendering individual judgments. Moreover, there is some evidence that one

can generalize to some extent from college students to the actual jury population. For example, Cutler, Penrod, and Dexter, (1990) obtained comparable findings in a study of eyewitness reliability using both college students and experienced mock jurors.

In this exploratory study, the trained mock jurors participated in an upper division university course in psychology and law. It is obviously not feasible for prospective jurors to take a course such as this prior to jury duty; however, the present findings do have practical implications and suggest recommendations for our legal system. Although many legal practitioners might prefer naïve and impressionable jurors, the present confirmation that a course in psychology and law may increase juror competence, motivation and satisfaction, suggests that a one-day juror training program might be developed and offered to prospective jurors who can elect to participate in it prior to their jury service. Such training could consist of a combination of lecture-discussions, films and workshops aimed at educating prospective jurors about the jury system and their roles in it. With the goal of redressing inadequacies in the current jury system, future research could be directed toward developing, implementing, and assessing the effects of such a training program.

REFERENCES

Adler, S.J. (1994). *The jury: Trial and error in the american courtroom.* NY: Times Books.

Babcock, B.A. (1995, October 8). Protect the jury system, judge was the problem. *Los Angeles Times.*

Bartol, C.R., & Bartol, A.M. (1994). *Psychology and law: Research and application* (2nd ed.).,Pacific Grove, CA: Brooks/Cole.

Buckhout, R. (1974). Eyewitness testimony. *Scientific American, 231,* 23-31.

Bothwell, R.K., Deffenbacher, K.A., & Brigham, J.C. (1987). Correlation of eyewitness accuracy and confidence: Optimality hypothesis revised. *Journal of Applied Psychology, 72,* 691-695.

Charrow, B., & Charrow, F. (1979). Making legal language understandable: A psycholinguistic study of juror instructions. *Columbia Law Review, 79,* 1306-1374.

Cozby, P.C. (2001). *Methods in behavioral research.* (7th ed.). Mountain View, CA: Mayfield.

Cutler, B.L., Penrod, S.D., & Dexter, H.R. (1990). Juror sensitivity to eyewitness identification evidence. *Law and Human Behavior, 14,* 185-191.

Diamond, S. S. (Ed.). (1979). Simulation research and the law. A special issue of *Law and Human Behavior, 3.*

Diamond, S. S. (1997). Illuminations and shadows from jury simulations. *Law and Human Behavior, 21,* 561-572.

Elwork, A., & Sales, B.D. (1985). Jury instructions. In Kassin, S., & Wrightsman, L. (Eds). *The psychology of evidence and trial procedure*, Beverly Hills, CA: Sage.

Elwork, A., Sales, B.D., & Alfini, J.J. (1977). Juridic decisions: In ignorance of the law or in light of it? *Law and Human Behavior, 1,* 163-189.

Faigman, D.L., & Baglioni, A.J. (1988). Bayes' theorem in the trial process: Instructing jurors on the value of statistical evidence. *Law and Human Behavior, 12,* 1-17.

Fong, G.T., Krantz, D.H., & Nisbett, R.E. (1986). The effects of statistical training on thinking about everyday problems. *Cognitive Psychology, 18,* 253-292.

Goodman, J. (1992). Jurors' comprehension and assessment of probabilistic evidence. *American Journal of Trial Advocacy, 16,* 361-389.

Heuer, L., & Penrod, S.D. (1988). Increasing jurors' participation in trials: A field experiment with jury notetaking and question asking. *Law and Human Behavior, 12,* 231-262.

Heuer, L., & Penrod, S.D. (1994). Trial complexity: A field investigation of its meaning and its effects. *Law and Human Behavior, 18,* 29-51.

Higgins, E.T., & Bargh, J.A. (1987). Social cognition and social perception. *Annual Review of Psychology, 38,* 369-425.

Hoiberg, B.C., & Stires, L.K. (1973). The effect of several types of pretrial publicity on guilt attributions of simulated juries. *Journal of Applied Social Psychology, 3,* 267-271.

Horowitz, I.A., & Kirkpatrick, L.C. (1996). A concept in search of a definition: The effects of reasonable doubt instructions on certainty of guilt standards and jury verdicts. *Law and Human Behavior, 20(5),* 655-670.

Horowitz, I.A., Willging, T.E., & Bordens, K.S. (1998). *The psychology of law.* (2nd Ed.)., NY: Addison-Wesley-Longman.

Kagehiro, D.K., & Stanton, W.C. (1985). Legal vs quantified definitions of standards of proof. *Law and Human Behavior, 9,* 159-178.

Klein, S.B., Loftus, J. (1988). The nature of self-referent encoding: The contributions of elaborative and organizational processes. *Journal of Personality and Social Psychology, 55,* 5-11.

Kramer, G.P., Kerr, N.L., & Carroll, J.S. (1990). Pretrial publicity, judicial remedies, and jury bias. *Law and Human Behavior, 14,* 409-438.

Lehman, D.R., & Nisbett, R.E. (1990). A longitudinal study of the effects of undergraduate training on reasoning. *Developmental Psychology, 26,* 952-960.

McAuliff, B.D., & Kovera, M.B. (2001). *Need for cognition and juror sensitivity to methodological flaws in psychological science.* Manuscript submitted for publication.

McAuliff, B.D., Nemeth, R.J., Bornstein, B.H., & Penrod, S.D. (2003). Juror decision-making in the twenty-first century: Confronting science and technology in court. In Carson, D., & Bull, R. (Eds.). *The handbook of psychology in legal contexts.* (2nd ed.), N.Y. Wiley.

Mill, D., Gray, T., & Mandel, D.R. (1994). Influence of research methods and statistics courses on everyday reasoning, critical abilities, and belief in unsubstantiated phenomena. *Canadian Journal of Behavioural Science, 26,* 246-258.

Moran, G., & Cutler, B.L. (1997). Bogus publicity items and the contingency between awareness and media-induced pretrial prejudice. *Law and Human Behavior, 21,* 339-344.

Nisbett, R.E. (1993) *Rules for reasoning.* Hillsdale, N.J.: Lawrence Erlbaum.
Otto, A., Penrod, S., & Dexter, H. (1994). The biasing impact of pretrial publicity on juror judgments. *Law and Human Behavior, 18,* 453-462.
Penrod, S.D., & Heuer, L. (1997). Tweaking commonsense: Assessing aids to jury decision-making. *Psychology, Public Policy, and Law, 3,* 259-284.
Robbennolt, J.K., Penrod, S., & Heuer, L. (1999). Assessing and aiding civil jury competence. In Weiner, I.B., & Hess, A.K. (Eds.) *The handbook of forensic psychology.* (2nd ed.). N.Y. Wiley.
Shaw, J.I., & Skolnick, P. (1995). Effects of prohibitive and informative instructions on jury decision-making. *Social Behavior and Personality, 23,* 319-326.
Shaw, J.I., & Skolnick, P. (2004). Effects of Prejudicial Pretrial Publicity from Physical and Witness Evidence on Mock Jurors' Decision Making. *Journal of Applied Social Psychology, 34,* 2132-2148.
Schklar, J., & Diamond, S.S. (1999). Juror Reactions to DNA evidence: Errors and expectancies. *Law and Human Behavior, 23,* 159-184.
Skolnick, P., & Shaw, J.I. (2001). A comparison of eyewitness and physical evidence on mock jury decision-making. *Criminal Justice and Behavior, 28(5),* 614-630.
Smith, B.C., Penrod, S. D., Otto, A.L., & Park, R.C. (1996). Jurors' use of probabilistic evidence. *Law and Human Behavior, 20,* 49-82.
Sowell, T. (1995, October 18). Reforming the Criminal Jury System, *Conservative Chronicle.*
Steblay, N. M. (1992). A meta-analytic review of the weapon focus effect. *Law and Human Behavior, 16,* 413-424.
Steblay, N.M., Besirevic, J., Fulero, S.M., & Jimenez-Lorente, B. (1999). The effects of pretrial publicity on juror verdicts: A meta-analytic review. *Law and Human Behavior, 23,* 219-235.
Strawn, D.U., & Musterman, G.T. (1982). Helping juries handle complex cases. *Judicator, 65,* 444-447.
Tanford, J.A. (1990). The law and psychology of jury instructions. *Nebraska Law Review, 69,* 71-111.
Wolf, S., & Montgomery, D.A. (1977). Effects of inadmissible evidence and level of judicial admonishment to disregard on the judgments of mock jurors. *Journal of Applied Social Psychology, 7,* 205-219.
Wrightsman, L.S., Kassin, S.M., & Willis, C.E. (1987). *In the jury box: Controversies in the Courtroom.* Newbury Park, CA: Sage.
Wrightsman, L.S., Greene, E., Nietzel, M.T., & Fortune, W.H. (2002). *Psychology and the Legal System.* (5th ed.). Belmont, CA: Thomson/Wadsworth.

Received: April 2005
Accepted: July 2005

Suggested Citation:

Shaw, J. I., & Skolnick, P. (2005). Effects of psycholegal knowledge on decision-making by mock juries [Electronic Version]. *Applied Psychology in Criminal Justice, 1*(2), 90-109.