

The Effect of Jury Deliberations on Jurors' Propensity to Disregard Inadmissible Evidence

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The goal of this research was to examine the effect of jury deliberations on juror's propensity to disregard inadmissible evidence. Extant research is inconclusive; some research indicates that jurors do follow judicial instructions to ignore inadmissible evidence, but other research suggests that jurors do not. Two experiments examined whether jurors were affected by inadmissible evidence. The results revealed that although mock jurors were biased by inadmissible evidence prior to deliberations, the bias was tempered following deliberations. In Experiment 1, post deliberation jurors disregarded incriminating evidence that was ruled inadmissible because of due-process concerns. Experiment 2 replicated these results with less incriminating inadmissible evidence and also revealed that jurors did not accurately gauge the impact that the inadmissible evidence had on their verdicts. Theoretical and judicial policy implications are discussed.

The ability or inability of jurors to disregard inadmissible evidence has important judicial implications, especially considering that several hundred thousand jury trials take place in the United States each year (Wrightsmen, 1987). If jurors do not disregard inadmissible evidence (i.e., the evidence alters perceptions of guilt or standards of proof), then credence would be lent to undertaking the financially costly and time-consuming process of calling a mistrial or of subsequently filing an appeal. If, on the other hand, jurors' verdicts are generally not affected by inadmissible evidence, the trial verdict should stand as an accurate indication of a defendant's culpability.

The foci of our research are twofold. First, we examine whether mock jurors heed judicial instructions to disregard inadmissible evidence both before and after jury deliberations. Second, we examine whether jurors accurately assessed the potential impact of inadmissible evidence on their verdict.

Empirical examinations of jurors' ability to ignore inadmissible evidence have yielded seemingly mixed results (e.g., Fein, McCloskey, & Tomlinson, 1997; Kadish & Kadish, 1971; Kassin & Sukel, 1997; Sue, Smith, & Caldwell, 1973; Thompson, Fong, & Rosenhan, 1981; Wolf & Montgomery, 1977). However, some of the divergent findings might be due to differences in methodologies. Specifically, some researchers have focused on mock jurors prior to deliberation, whereas others have examined the impact of bias on jurors after they have deliberated.

Evaluating the Nondeliberating Juror

A number of psycholegal studies have found that individual jurors generally do not follow judicial instructions to ignore inadmissible evidence (e.g., Kadish & Kadish, 1971; Sue et al., 1973). For instance, Sue et al. (1973) presented mock jurors with written summaries of a murder trial that either lacked critical evidence or contained critical evidence that was ruled either admissible or inadmissible. They found that individual mock jurors exposed to inadmissible evidence yielded more guilty (biased) verdicts than they did when the case lacked the critical inadmissible evidence.

Along a similar vein, Kassin and Sukel (1997) conducted two mock juror studies in which individuals read trial summaries that contained a falsely admitted confession that was described as being attained during either a high- or a low-pressure police interrogation. The confession evidence was subsequently ruled inadmissible on the grounds that it was coerced. Results revealed that individual jurors were biased by the inadmissible evidence, even when the interrogation leading to the confession was described as highly coercive.

Numerous theories have been posited to account for jurors' apparent inability or unwillingness to adhere to judicial instructions to ignore inadmissible evidence. Perhaps most notably, Kassin and Sommers (1997) hypothesized that the rationale behind an admissibility ruling is key to determining whether jurors will follow the instructions. Kassin and Sommers (1997), as well as other researchers (e.g., Austin, Walster, & Utne, 1976; Kassin & Studebaker, 1998), have contended that jurors are more concerned with reaching a just outcome than with following due process procedures. Hence, Kassin and Sommers hypothesized that if evidence is questionable in reliability, jurors may disregard the evidence as instructed. Disregarding unreliable information is not, Kassin and Sommers contended, inconsistent with the jurors' primary concern of reaching a correct and just verdict. However, when instructed to ignore evidence because of due process concerns, the jurors are required to put aside their beliefs regarding the true status of the defendant's culpability (as suggested by the inadmissible evidence) to follow the instructions.

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To support their hypothesis, Kassin and Sommers (1997) conducted a mock juror study in which wiretap evidence in a murder trial was either reliable or unreliable information and was ruled either admissible or inadmissible. Kassin and Sommers (1997) found that jurors were biased by the inadmissible evidence when it was reliable but ruled inadmissible because of due process (i.e., illegal wiretap). However, individuals disregarded the information when it was ruled inadmissible because it was unreliable (i.e., inaudible recording). Also, analysis of on-line ratings of jurors' perceptions of the defendant's guilt revealed that jurors in the inadmissible due process condition viewed the evidence that followed the inadmissible evidence as more incriminating than did jurors in the inadmissible-unreliable or control conditions. In summary, jurors' beliefs about the defendant's guilt appear to be affected by evidence that is ruled inadmissible because of due process concerns; these beliefs persevere and taint the jurors' interpretation of subsequent evidence.

Results from Kassin and Sommers' (1997) research suggests that the reliability of evidence may affect individual jurors' propensity to disregard. However, some studies fail to support this hypothesis, finding that jurors can overcome bias, even with due process rationales for inadmissibility (e.g., Carretta & Moreland, 1983; Edwards & Bryan, 1997; Kerwin & Shaffer, 1994; Landsman & Rakos, 1994; Thompson et al., 1981). For instance, Edwards and Bryan (1997) found that jurors exposed to inadmissible evidence about a defendant's prior record (i.e., a due process rationale) were not biased when the inadmissible evidence was not emotional (although jurors were biased when the inadmissible evidence was highly emotional).

Although extant mock juror studies clearly show that mock jurors may be biased by inadmissible evidence, it is important to note that the studies discussed were conducted with individual jurors rather than with a jury composed of numerous individuals. Although Kassin and Sommers' (1997) observations regarding the admissibility rationales seem in part to predict when individuals will adhere to judicial instructions, one cannot conclude that the decision-making process and product of the individual are generalizable to that of the individual after he or she has deliberated with the group.

Evaluating the Jury Process and Outcome

With regard to jury decisions, one question that has received inquiry from psycholegal researchers is whether the deliberation process exacerbates or diminishes individual biases (e.g., Kerr, MacCoun, & Kramer, 1996). There are data to support both positions. Evidence that group deliberations exacerbate individual biases has been found for the impact of pretrial publicity (Kramer, Kerr, & Carroll, 1990), attractiveness of defendants (MacCoun, 1990), and death qualification attitudes (Cowen, Thompson, & Ellsworth, 1984). Also, recent evidence suggests that deliberations may serve as the breeding ground for legal rebellion. For example, researchers have hypothesized that jurors' decisions to completely disregard the law (i.e., jury nullification) are introduced and cultivated during the deliberation process (Bourgeois & Horowitz, 1999).

In contrast, some researchers have suggested that group deliberations might temper the effect of biasing factors. For example, the process of group deliberations may control for biasing factors

of defendant characteristics such as attractiveness and race (Izzette & Leginski, 1974) and pretrial publicity (Kline & Jess, 1966). Kaplan and Miller (1978) have shown that situational biases specific to a particular case are often eliminated by having jurors deliberate. Hence, under some circumstances, the deliberation process has been found to lessen individual biases.

Though few studies have specifically examined the impact of deliberations on bias due to inadmissible evidence, results indicate that deliberation lessens rather than increases bias. For instance, Carretta and Moreland (1983) conducted a jury deliberation study in which individuals read a mock trial summary that contained critical evidence that favored either prosecution or acquittal. Results revealed that prior to deliberation, jurors' verdicts and views toward the defendant were biased by the inadmissible evidence, replicating trends of individual juror research. Following deliberations, jurors in the pro-acquittal, inadmissible evidence condition continued to show bias. However, there were no differences in postdeliberation verdicts between jurors in the pro-prosecution inadmissible and control groups. Carretta and Moreland's (1983) results suggest that deliberations can, in some circumstances, "help jurors to control the influence of inadmissible evidence on their decisions" (p. 291). These results are especially compelling because jurors disregarded evidence (i.e., emotional evidence with a due process rationale to disregard) that was shown in individual studies to bias jurors (e.g., Edwards & Bryan, 1997; Kassin & Sommers, 1997).

A study by Thompson et al. (1981) provides further evidence that deliberations may help lessen bias caused by the introduction of inadmissible evidence. They conducted a mock trial that contained either inadmissible evidence supporting acquittal, inadmissible evidence supporting conviction, or no inadmissible evidence. The admissibility ruling was based on the due process concern of an illegal wiretap. The results revealed that following deliberations, jury members that received inadmissible evidence supporting conviction generally were not biased. However, jury members in the pro-acquittal condition still appeared to be biased. Thompson et al. (1981) suggested that the pro-acquittal-condition jurors may have been especially prone to bias because of an intense reluctance to convict an innocent person. It is important to note that jurors showed bias only when the inadmissible evidence favored the defendant's acquittal. The only two studies of which we are aware that show a continued biasing effect of inadmissible evidence following deliberation, that of Thompson et al. (1981) and that of Carretta and Moreland (1983), are those in which the inadmissible evidence favors the acquittal of the defendant. However, legal measures that protect a defendant's due process rights generally require that if a judge or a prosecutor becomes aware of evidence exonerating a defendant, the judge must require that it be looked at. Again, jury studies dealing with inadmissible evidence that favors the prosecution have found that jury members indeed disregard such evidence following deliberations.

However, further evidence to suggest that deliberations may be important in tempering the effect of bias due to inadmissible evidence comes from Kerwin and Shaffer (1994). They explored the hypothesis that it may not be the actual process of group deliberations that modifies biasing factors but rather the mere expectation of deliberating with other individuals. Kerwin and Shaffer (1994) found that the verdicts of both individual non-deliberating jurors and pre-deliberation jury members were biased.

However, supporting the contention that the process of deliberations may help temper bias, Kerwin and Shaffer (1994) found that following deliberations, mock jury members often changed their predeliberation verdicts toward disregarding inadmissible evidence.

In summary, individual mock juror studies generally reveal that individuals are biased by inadmissible evidence. Examinations of predeliberation mock jury members exposed to inadmissible evidence yield results similar to those of the individual studies (i.e., jurors are biased). However, examinations of the postdeliberation jurors generally suggest that inadmissible evidence is disregarded, even when the admissibility ruling is for due process concerns.

We designed a case summary in which mock jurors were exposed to highly incriminating critical evidence that was ruled inadmissible because of due process concerns. On the basis of individual juror studies previously reviewed, one should expect that dramatic evidence ruled inadmissible because of due process concerns would be difficult for jurors to disregard. We hypothesized that individual jurors would be biased prior to deliberation but that the bias would be lessened following deliberations. One caveat regarding the methodology of this design deserves attention. Jury simulations are, of course, simplified versions of the task before actual juries. Although simulations are necessary to control for many potential confounding variables, caution is warranted in generalizing the results to the actual jury.

Experiment 1

Method

Participants. Participants were 223 students (85 men and 138 women) enrolled at a Rocky Mountain university. Individuals participated to fulfill partial course requirements. Participants ranged in age from 18 to 53 years old ($M = 21.52$, $SD = 4.81$) and were jury eligible.

Materials and procedure. Participants gathered in groups of approximately 10 ($M = 10.14$). Juries ranged in number of members from 8 to 12. Each jury was randomly assigned to one of three written trial summary conditions. The mock trial summaries were composed of six pages that included both prosecution and defense testimonies. All trial summaries described the alleged second degree sexual assault of an 8-year-old female victim that had occurred 18 months previously. The defendant was accused of disrobing and fondling the victim while she was waiting at the defendant's residence for her playmate, the defendant's daughter, to return home.

The case summaries varied only in the presentation of critical evidence. In the absence of critical evidence (control condition), the case against the defendant was designed to be weak. In the other two conditions, the critical evidence was described as 17 photos of the victim, partially dressed or nude, that detectives had confiscated from the defendant's residence. In both critical evidence conditions, the defense objected to the presentation of the photographs, arguing the evidence was obtained during an illegal search and seizure (a due process rationale). The evidence was subsequently ruled either inadmissible or admissible. In the inadmissible condition, jurors were instructed to disregard the statement about the photographs. No rationale was offered from the judge, in keeping with the procedure commonly used in the courtroom (Kassin & Sukel, 1997).

Participants were instructed to read the trial summaries and to act as jurors. After reading the case and receiving jury instructions, jurors completed a brief predeliberation questionnaire, rendering their individual verdict (guilty or not guilty) and verdict confidence (from 0% to 100%). We collected the materials, and we instructed the jury on the law. Mock jury members were instructed to deliberate and to strive to reach a unan-

imous verdict. Juries deliberated until they reached a unanimous verdict or for 1 hour. Following deliberations, participants received a postdeliberation questionnaire, where they once again rendered their individual verdict and confidence.

Results

A chi-square analysis revealed differences in predeliberation verdicts across admissibility conditions, $\chi^2(2, N = 223) = 57.29$. Analysis of binomial proportions (using Bonferroni corrections for all multiple comparisons) revealed that jurors in the admissible condition yielded more guilty verdicts than did jurors in the control condition, $Z = 11.24$, or the inadmissible condition, $Z = 6.15$. Also, as predicted, jurors in the inadmissible condition yielded more guilty verdicts than did jurors in the control condition, $Z = 3.73$. All $ps < .002$, $\lambda = .319$.

We again used a chi-square analysis to examine postdeliberation verdicts. Results revealed differences in verdicts across conditions, $\chi^2(2, N = 223) = 107.08$, $p < .001$, $\lambda = .611$. Analysis of binomial proportions revealed that mock jurors in the admissible condition again yielded more guilty verdicts than did those in the control condition, $Z = -20.23$, $p < .001$, or the inadmissible condition, $Z = -14.71$, $p < .001$. However, verdict differences between the control and inadmissible conditions no longer reached conventional levels of statistical significance, $Z = -.779$, $p > .05$ (see Table 1).

Next, we conducted a between-subjects analysis of variance (ANOVA) with admissibility condition as the independent variable and predeliberation confidence ratings (from 0% to 100%) as the dependent variable. Results revealed that confidence varied with condition, $F(2, 220) = 14.90$, $p < .001$, $\eta^2 = .173$. A Sheffé test revealed that participants in the admissible condition ($M = 89.14$, $SD = 11.36$) held higher confidence than did jurors in the control ($M = 71.39$, $SD = 20.81$) or the inadmissible ($M = 71.61$, $SD = 27.92$) conditions. Differences in the confidence ratings of inadmissible and control jurors did not reach conventional levels of significance.

Finally, we used a chi-square analysis to examine whether frequency of verdict change (change or no change) varied with admissibility condition. Frequency of verdict change varied with

Table 1
Percentage of Guilty Verdicts, Predeliberation Confidence, and Percentage of Verdict Changes in Experiment 1

Measure	Condition		
	Control	Inadmissible	Admissible
Predeliberation			
% voting guilty	33	60	96
Confidence rating			
<i>M</i>	71.39	71.61	89.14
<i>SD</i>	20.81	27.92	11.36
% changing verdict after deliberations	16	33	4
Postdeliberation			
% voting guilty	17	28	100

Note. Participants rated their predeliberation confidence in their verdict from 0% to 100%. The $ns = 83$, 83, and 57 for the control, inadmissible, and admissible conditions, respectively.

condition, $\chi^2(2, N = 223) = 19.49, p < .001, \lambda = .082$. Comparisons revealed that jurors in the inadmissible condition were more likely to change their verdicts than were jurors in the control condition, $Z = -2.59, p < .01$, or the admissible condition, $Z = 5.10, p < .001$.

Discussion

The results from Experiment 1 reveal that, as we hypothesized, jury members' pre-deliberation verdicts were biased by the presentation of inadmissible evidence. Also as we hypothesized, the process of deliberations lessened the biasing impact of inadmissible evidence. Results from Experiment 1 are important in that jury members generally disregarded highly incriminating evidence that was ruled inadmissible because of due process concerns.

A second noteworthy finding of Experiment 1 is in jury members' verdict confidence ratings. Prior to deliberations, jurors in the inadmissible condition had confidence ratings that were similar to those of jury members in the control condition (70.94% and 70.06%, respectively). However, jury members in the inadmissible condition were more likely to change their verdicts following deliberations. One possible implication of this finding is that jury members may not realize the extent to which the inadmissible evidence affected their verdicts. It has been suggested that people often are not aware of or underestimate the impact that certain information might have on their overall judgments (Nisbett & Wilson, 1977; Wyer & Unverzagt, 1985). Jurors may not be operating under some overt higher sense of justice to free the innocent and punish the guilty. Rather, it may be that they are unaware of the biasing impact of the inadmissible evidence.

Indeed, mock juror researchers have suggested that jurors seem not to be fully aware of factors that exert influence on their decisions (e.g., Carretta & Moreland, 1983; Edwards & Bryan, 1997; J. D. Johnson, Whitestone, Jackson, & Gatto, 1995; Kassin & Sukel, 1997; Thompson et al., 1981). With regard to the deliberating jury, Thompson et al. (1981) found that jury members overestimated bias when they were not biased and underestimated bias when they were biased.

In Experiment 2, we sought to replicate the findings of Experiment 1 and to expand the findings in two ways. First, we were interested in testing the replicability of the results from Experiment 1 using inadmissible evidence that might reasonably be presented in court. A number of studies, including our Experiment 1, have used mock trial summaries with inadmissible evidence that most likely would have been met with a motion to suppress prior to trial. For example, Carretta and Moreland (1983), Kassin and Sommers (1997), Sue et al. (1973), and Thompson et al. (1981) all used questionable wiretaps as the impetus for the admissibility ruling. The admissibility ruling in such cases would occur prior to its presentation to the jury. In Experiment 2, a more reasonable piece of inadmissible evidence (though not as dramatic) was introduced. A second contribution of Experiment 2 was our attempt to measure awareness of bias. The study examined the jurors' reported awareness of bias both before and after deliberations in an attempt to shed further light on the process of jury deliberations. Again, caution is warranted in generalizing experimental jury simulations to the actual courtroom.

Experiment 2

Method

Participants. Participants were 159 undergraduate students (91 women and 68 men) enrolled at a Rocky Mountain university. Individuals participated to fulfill partial course requirements. Participants ranged in age from 18 to 48 years of age ($M = 22.01, SD = 4.84$).

Materials and procedure. Participants gathered in groups of approximately 10 ($M = 10.6$) and read one of three case summaries. Juries ranged in number of members from 8 to 12. Experimental procedure was similar to that of Experiment 1, with several notable exceptions. The details of the alleged second degree sexual assault of a child were similar to Experiment 1, with pilot studies indicating that the case summary against the defendant was weak in the absence of critical evidence. However, the revised case summary was designed to present the critical evidence in a manner that may feasibly occur in the courtroom. In the inadmissible and admissible conditions, the critical evidence was presented by the victim's mother. As the victim's mother offered testimony, she spontaneously revealed that she was shocked when she recently became aware that the defendant had a prior charge of child sexual assault. Prior research suggests that jurors perceive a case as more damaging against a defendant when they know the defendant has a prior record (Greene & Dodge, 1995; Hans & Doob, 1975). The mother's revelation brought an objection from the defense. On the basis of actual judicial instructions, participants in the inadmissible condition were informed to disregard the statement about the prior record.

After reading the summary, individuals responded to a questionnaire regarding their perceptions of the defendant's guilt. Mock jurors rendered a verdict (guilty or not guilty). Next, they indicated on a 9-point scale ranging from 1 (*definitely not guilty*) to 9 (*definitely guilty*) the degree to which they felt the defendant was culpable; this was the degree of guilt score. The degree of guilt score allowed comparisons of the degree to which participants felt the defendant was culpable, regardless of whether they decided to vote guilty or not guilty. All participants indicated on a 9-point scale ranging from 1 (*not at all*) to 9 (*very*) the degree of confidence they held in their verdict. Jurors in the inadmissible condition also indicated on a 9-point scale a perceived culpability score (their predicted estimate of how guilty they would have viewed the defendant to be had the critical evidence not been presented). Similar measures of degree of guilt and perceived culpability have been used in past mock jury studies that investigated jurors' awareness of bias (e.g., J. D. Johnson et al., 1995; Thompson et al., 1981). Participants also provided a detailed list of what evidence was important in their decisions. The remaining experimental procedures were identical to those in Experiment 1.

Results

Verdict. A chi-square test revealed differences in pre-deliberation verdicts across admissibility conditions, $\chi^2(2, N = 159) = 51.01$. Analysis of binomial proportions revealed differences between all three conditions. Jurors in the admissible condition rendered more guilty verdicts than did both jurors in the control condition, $Z = -10.07$, and jurors in the inadmissible condition, $Z = -5.22$. In addition, jurors in the inadmissible condition rendered significantly more guilty verdicts than did jurors in the control condition, $Z = -3.17$. All $ps < .002, \lambda = .388$ (see Table 2).

A second chi-square conducted on jurors' postdeliberation verdicts revealed differences in verdicts following deliberation, $\chi^2(2, N = 159) = 87.31, p < .001, \lambda = .694$. Analysis of binomial proportions revealed that verdict differences between the control and inadmissible conditions no longer reached conventional levels of statistical significance, $Z = -.779, p > .05$ (see Table 2).

Table 2
Percentage of Guilty Verdicts and Mean Ratings of Defendant Culpability in Experiment 2

Measure	Condition		
	Control	Inadmissible	Admissible
Predeliberation			
% voting guilty	26	55	94
Culpability rating			
<i>M</i>	4.37	5.72	7.52
<i>SD</i>	2.35	2.44	1.49
Postdeliberation			
% voting guilty	17	23	98
Culpability rating			
<i>M</i>	3.98	4.96	7.85
<i>SD</i>	2.63	2.69	1.60

Note. Culpability ratings were gauged on a 9-point Likert-type scale with 1 = *definitely not guilty* and 9 = *definitely guilty*. The *ns* = 54, 53, and 52 for the control, inadmissible, and admissible conditions, respectively.

Next, to further examine whether jurors appeared biased by the inadmissible evidence, we examined their degree of guilt scores. A 3 (admissibility condition) \times 2 (pre/postdeliberations) repeated measures ANOVA revealed a significant interaction between admissibility condition and pre- and postdeliberations, $F(2, 156) = 3.64, p < .05, \eta^2 = .047$. A Sheffé test revealed that prior to deliberations, participants in the admissible condition ($M = 7.52, SD = 1.49$) rated the defendant as more culpable than did participants in either the control condition ($M = 4.37, SD = 2.35$) or the inadmissible condition ($M = 5.72, SD = 2.44$). Participants in the inadmissible condition rated the defendant as more culpable than participants in the control condition did. Following deliberations, participants in the admissible condition still rated the defendant as significantly more culpable than participants in either the control condition or the inadmissible condition did ($M = 7.85, SD = 1.60; M = 3.98, SD = 2.63; \text{ and } M = 4.96, SD = 2.69$, respectively). However, the difference between the inadmissible condition and the control condition was no longer significant (see Table 2).

Awareness of bias. We conducted a series of analyses to examine the jurors' awareness of the impact of the critical evidence. First, a between-subjects ANOVA revealed that jurors' predeliberation confidence in their verdicts varied by admissibility condition, $F(2, 156) = 9.60, p < .001, \eta^2 = .117$. A Sheffé test revealed that participants in the admissible condition rated themselves as significantly more confident in their predeliberation verdicts ($M = 7.40, SD = 1.16$) than did participants in both the control condition ($M = 6.39, SD = 1.93$) and the inadmissible condition ($M = 6.00, SD = 1.87$). Participants in the control and inadmissible conditions did not differ significantly from one another (see Table 3).

To examine whether jurors in the inadmissible condition were more likely to change their verdicts following deliberations, we conducted a chi-square analysis using admissibility condition as the independent variable and frequency of verdict change (change or no change) from pre- to postdeliberations as the dependent variable. Frequency of verdict change varied by admissibility condition, $\chi^2(2, N = 159) = 18.49, p < .001, \lambda = .101$ (see Table

3). Comparisons revealed that jurors in the inadmissible condition were more likely to change their verdict following deliberations than were jurors in either the control condition, $Z = -3.03, p < .002$, or the admissible condition, $Z = 4.07, p = .001$.

Next, we conducted an analysis to compare the culpability ratings of jurors in the control and inadmissible conditions. Before and after deliberations, all jurors rated the level to which they felt the defendant was culpable; this was the degree of guilt score. In addition, jurors in the inadmissible condition were asked to give a rating of the defendant's culpability had the inadmissible evidence never been presented; this was the perceived culpability score. If jurors in the inadmissible condition accurately assess their bias, their perceived culpability scores should not differ from the culpability scores of jurors in the control condition. To examine whether inadmissible-condition jurors appeared to be aware of potential bias and to examine whether awareness varied following deliberations, we conducted a 2 (control or inadmissible) \times 2 (pre/postdeliberation) ANOVA with the degree of guilt scores serving as the dependent variable. The analysis revealed no significant interaction between condition and deliberations, $F(1, 105) = 0.15, p > .05$. The analysis also revealed no significant effect for condition (inadmissible or control), $F(1, 105) = 1.87, p > .05$. Results did reveal a significant effect for deliberations (pre- or postdeliberations), $F(1, 105) = 4.30, p < .05, \eta^2 = .064$. Following deliberations, participants in the inadmissible condition rated that if the inadmissible evidence had not been presented, they would have viewed the defendant as less culpable.

Jurors' rationales for their verdicts. We were interested in examining the reasons jurors cited as important in their decisions. Mock jurors in the inadmissible evidence condition were asked before and after deliberations to list the factors in the case summary that were important in reaching their case verdict. Prior to deliberations, 29 of 53 jurors in the inadmissible condition yielded guilty verdicts. Among these jurors, 79.31% cited the testimony from the victim as important in their decision, 48.28% stated that the defense was not credible or may have lied, 41.38% cited the testimony from the victim's mother, 37.93% cited the detective's testimony, and 13.79% cited the inadmissible evidence. Following deliberation, of the 12 remaining jurors in the inadmissible condition who rendered guilty verdicts, 83.33% cited the testimony from the victim as important in their decision, 66.66% stated that the defense was not credible or may have lied; 33.33% cited the

Table 3
Predeliberation Juror Confidence and Percentages of Jurors Changing Verdicts With Deliberations in Experiment 2

Measure	Condition		
	Control	Inadmissible	Admissible
Predeliberation confidence			
<i>M</i>	6.39	6.00	7.40
<i>SD</i>	1.93	1.87	1.16
% changing verdict after deliberations	9	32	4

Note. Participants rated the amount of confidence they held in their predeliberation verdicts on a 9-point Likert-type scale, with 1 = *not at all confident* and 9 = *very confident*. The *ns* = 54, 53, and 52 for the control, inadmissible, and admissible conditions, respectively.

testimony from the victim's mother, 16.66% cited the detective's testimony, and none cited the inadmissible evidence.

Discussion

The results of Experiment 2 provide further support that group deliberation helps lessen the biasing impact of inadmissible evidence that has been shown in individual mock juror studies. Experiment 2 replicated the results of Experiment 1, revealing that the biasing impact of the inadmissible evidence was lessened following jury deliberations.

Second, jurors in Experiment 2 did not appear to accurately gauge the effect that the inadmissible evidence had on their verdicts. Results revealed that jurors' predeliberation views toward the defendant's culpability were biased; however, following deliberations, the bias was no longer apparent. It is interesting to note that after deliberation, jurors generally reported that the inadmissible evidence caused them to view the defendant as more guilty than they would have had the evidence never been presented, suggesting that jurors believed the evidence affected their verdicts more than it actually did. At the same time, when asked what evidence was important in their decisions, mock jurors generally did not cite the inadmissible evidence as important. These findings are consistent with the contentions of other legal researchers that jurors may not be fully aware of the factors that influence their decision making (e.g., Carretta & Moreland, 1983; J. D. Johnson et al., 1995; Kassin & Sukel, 1997; Thompson et al., 1981).

General Discussion

Empirical investigations of the influence of inadmissible evidence have generally focused on individual nondeliberating jurors. Generally, such studies find that individuals are biased when exposed to inadmissible evidence (e.g., Kassin & Sommers, 1997). However, the results from Experiments 1 and 2, as well as results from other research (e.g., Carretta & Moreland, 1983; Izzette & Leginski, 1974; Kaplan & Miller, 1978; Kline & Jess, 1966; Thompson et al., 1981), suggest that jury deliberations may somehow moderate the effect of biasing factors. In Experiments 1 and 2, mock jurors were generally biased by the presentation of inadmissible evidence prior to deliberations. However, mock jurors' verdicts were generally not biased following group deliberations. These findings seem especially interesting considering that the majority of jurors (60% in Experiment 1 and 55% in Experiment 2) yielded biased verdicts prior to deliberations. Extant research suggests that the majority predeliberation verdict predicts the final verdict (Kalven & Zeisel, 1966; MacCoun, 1990). Taken together, the research supports the notion that deliberations may play an important role in jurors' propensity to disregard inadmissible evidence.

The details of the case summaries used in our experiments contain many of the same characteristics that have been shown to bias individual nondeliberating jurors. First, Edwards and Bryan (1997) have found that individuals are biased by emotional but not by nonemotional inadmissible evidence. Second, Kassin and Sommers (1997) found that individuals disregard unreliable inadmissible evidence but are biased by reliable inadmissible evidence. Third, Kalven and Zeisel (1966) have suggested that biasing evidence should exert its effect especially when the other case evi-

dence is ambiguous. Each of these factors was included in our studies. In Experiment 1, postdeliberation jurors were told about the emotional evidence of photos of a nude child. The evidence was ruled inadmissible because of due process concerns (illegal search and seizure) rather than reliability concerns. Furthermore, both Experiment 1 and Experiment 2 were designed to be weak in the absence of the critical evidence. In summary, our case summaries include pieces of evidence that have been shown to bias nondeliberating jurors. In fact, the evidence had just that effect on our jurors prior to deliberations, replicating the findings of nondeliberating-juror studies. Our findings suggest that the methodological difference of examining individual jurors versus deliberating jury members may help account for the seemingly mixed findings of past inadmissible-evidence studies.

Although results from our experiments suggest that examining the deliberating juror may indeed produce different results than examining the nondeliberating jurors, studies of nondeliberating jurors may still have much to offer to further our understanding of the effects of inadmissible evidence. To understand what kinds of changes may occur in jurors' reasoning during deliberations, one must understand jurors' reasoning prior to deliberations. Understanding predeliberation bias may help shed light on how it is that deliberations seem to temper this bias.

There are several feasible explanations that may help explain the tempering effect of deliberations on juror bias due to inadmissible evidence. Two hypotheses seem especially noteworthy. Kerwin and Shaffer (1994) have suggested that deliberations may produce accountability among jury members. That is, jury members may remind one another that they may not consider inadmissible evidence in reaching their verdicts.

Another possible explanation follows from Kassin and Sommers' (1997) findings that inadmissible evidence appears to bias nondeliberating jurors' interpretation of subsequent evidence. That is, when people are given information and later told to disregard it, "the information to be disregarded may often have implications for the interpretation of other information presented" (Wyer & Unverzagt, 1985, p. 548). Jurors may unknowingly view evidence against a defendant as more damning than they would have without exposure to the inadmissible evidence. Consistent with this notion, in our Experiment 2, predeliberation jurors were asked to list the evidence that influenced their verdicts. Very few jurors cited the inadmissible evidence. Instead, the jurors cited other case evidence as compelling (e.g., viewing the child's testimony as highly reliable). If juror's predeliberation verdicts are biased because of inaccurate interpretations of other case evidence, deliberations may then help the jury members to properly interpret the evidence, perhaps by allowing more divergent thinking.

Related to this notion, researchers have suggested that jurors consider trial evidence in light of one or more "stories" that feasibly describe the events in question (e.g., Hastie, Penrod, & Pennington, 1983; Pennington & Hastie, 1986). Thus, when jurors are exposed to incriminating inadmissible evidence, they might create or switch their story regarding the trial events and interpret subsequent evidence to fit with their new story. The jurors may enter deliberations with their biased story of the events, and jury deliberations may act to raise the issue of alternative stories for the events in question. As McCoy, Nunez, and Dammeyer (1999) suggested, the collective jury may raise more alternative stories regarding the trial events than any single juror does prior to

deliberations. In summary, deliberations may help temper bias by raising the jurors' awareness to other possible case stories or scenarios.

Juror bias and reasoning about evidence are complex, multifaceted issues. It is likely that no single explanation can account for the tempering effect of jury deliberations. Future studies using a variety of case evidence in more multifaceted, complex cases are needed to examine whether deliberations temper bias and if so, how robust that effect is. In addition, future research is needed to compare nondeliberating-juror reasoning with jury-member reasoning to better identify the mechanisms and the circumstances in which deliberations temper bias. Finally, interviews with actual jurors would be helpful in framing the generalizability of jury simulations.

Limitations

The present study sought to overcome several limitations of past juror studies that may have hindered the generalizability of simulated juror studies. First, we examined mock jurors who deliberated in groups with an average of 10 members, rather than examining individual nondeliberating jurors or small groups. Second, in Experiment 2, the case summary was designed to present the inadmissible evidence in a manner that could feasibly occur in court.

Mock trial summaries are necessary to allow maximum control of experimental variables. Even in mock trials videos, many possible extraneous variables are introduced (e.g., defendant attractiveness, an attorney's annoying mannerisms) that may influence or even be the driving force behind the jurors' decisions. However, caution is warranted in generalizing mock trials to the courtroom. Jurors may respond differently to inadmissible evidence in light of the case type on which they are deciding or the nature of the evidence (e.g., reliable vs. unreliable). Furthermore, jurors' verdicts in actual courtroom trials are obviously the result of many factors that cannot be included in written trial vignettes. For instance, mock jurors in our study were provided with brief disregard instructions rather than instructions from an actual judge. However, it seems noteworthy that mock jurors in our study generally disregarded inadmissible evidence even in the absence of instructions from a regarded authority figure. Although mock juror studies have inherent limitations, only through experimental replication and examinations of actual courtroom studies can we better understand the influence of subtle biasing factors.

Conclusions

The methodological difference of examining deliberating versus nondeliberating jurors may help account for the seemingly mixed findings of past studies examining inadmissible evidence. The results of the present study suggest that jurors are often biased by inadmissible evidence prior to deliberations. Although jurors do not appear to accurately gauge the extent of their bias, the final product of jury deliberations, the verdict, was generally not biased. Our results suggest that some aspect of jury deliberations helps lessen the biasing impact of inadmissible evidence. Results suggest that a criminal defendant may be unlikely to suffer from the presentation of inadmissible evidence when the final trial verdict is rendered.

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