

THE EFFECTS OF GROUP DELIBERATION ON CAPITAL JURY VERDICTS:
BIAS ATTENUATION OR EXACERBATION?

by

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ABSTRACT

Existing studies regarding the effects of capital punishment attitudes on jury decision making have consistently found that those holding pro-death penalty attitudes process information differently than those against the death penalty. These effects have been shown at all levels of processing including attention, weighting, and recall of attitude-consistent evidence presented at trial. Thus, the consistent finding in the literature that jurors who favor the death penalty are more conviction prone than those who oppose it is troubling given that it is those in favor of capital punishment who are empanelled in capital trials. While this presents a problem for the impartial juror construct fundamental to the legal system, the studies used to reach such conclusions are individual level studies which examine only individual juror propensities. The role of capital punishment attitudes on decision making at the group level has largely been ignored, or left to inference. Given the possibility for group outcomes to be different than individual propensities, the question of whether juries would be similarly biased when it comes to capital punishment attitudes was empirically investigated in the present study.

Davis' social decision schemes (SDS) approach was used to examine processing in deliberating juries in order to determine if attitudinal biases favoring conviction evident at the individual level would be enhanced or diminished at the group level. Two types of juries were examined, homogeneous juries composed of those holding pro-capital punishment attitudes, and mixed juries, representing a range of attitudes towards the death penalty. In light of differences in information processing styles, bias enhancement in the form of increased conviction proneness was predicted for homogeneous juries and bias attenuation was expected for mixed juries. However, the results in the present study

did not support these predictions. In fact, no evidence was found for bias of any type in the group process. Even the leniency bias, which is robust in other studies of jury decision making, did not emerge in the current study. Possible reasons for this are discussed including the fact that little evidence of bias was found at the individual level before deliberations. It is also conceivable that the type of case chosen and the moderate implications of guilt in the current study mitigated attitudinal biases.

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CHAPTER I

INTRODUCTION

The American jury system is predicated on the assumption that jurors can be blank slates, making decisions solely on the facts of the case and not on preexisting attitudes that may influence decision making. In reality however, jurors are far from blank slates, which is well documented in the literature on jury decision making. Instead all individuals, jurors or not, possess attitudes that have the potential to influence judgments, especially when effortful processing capacities are overwhelmed. Studies have found that pre-existing attitudes may keep jurors from being truly impartial and can influence their information processing accordingly (cf. Meissner, Brigham & Pfeifer, 2003). Attitudes often serve as the schema through which new incoming information is viewed, influencing all aspects of the decision making process from encoding and processing of evidence, to retrieval of schema-consistent information. Given the significance of the impartial juror construct, it is important to understand the role that pre-existing attitudes, (those formed before and not during the trial), may have on jury decision making. While jurors often enter into the legal arena holding a number of potentially influential attitudes, one widely studied attitude in the social psychological literature is the attitude towards capital punishment.

Selection of Capital Jurors

While the Supreme Court has struggled over the years with how to best deal with pre-existing attitudes regarding the death penalty, it is clear that they at least recognize the potential for bias stemming from these attitudes. Through the process of voir dire, the Court attempts to find the proper balance between the State's interests and the defendant's

rights by removing from the jury any individuals who would be unable to follow the law because of their attitudes towards capital punishment. The goal of death qualification and voir dire, which occur in capital trials, is to strike a balance between jurors' attitudes toward the death penalty and the defendant's right to an impartial jury (O'Neil, Patry & Penrod, 2004). As such, the court typically excludes from service jurors whose attitudes are so strong that it would make it unlikely that they could consider the full range of punishments, including the death penalty. This practice results in death qualified juries being comprised exclusively of jurors who favor (or at least tolerate) the use of the death penalty and creates a distinct type of jury not found elsewhere in the legal system, one that is homogeneous in attitude. Thus, two distinct types of juries exist in the criminal justice system, mixed (representing the entire range of attitudes in the community), and death qualified (Cowan, Thompson & Ellsworth, 1984).

Before the influential case of *Witherspoon v. Illinois*, 391 U.S. 510 (1968), jurors were excluded from serving on a capital jury if they held anti-death penalty attitudes. Jurors who expressed any doubts or objections to the death penalty were excluded in all capital cases without any attempt to determine whether those sentiments would compel them to vote against capital punishment (*Witherspoon v. Illinois*). Witherspoon appealed his case to the Supreme Court stating that excluding jurors who were unfavorable to the death penalty deprived him of his Sixth and Fourteenth Amendment rights to due process because the jury entered the trial already partial to the case, increasing the likelihood that the jury would return a guilty verdict (*Witherspoon v. Illinois*). Despite the fact that Witherspoon provided evidence from several published and unpublished scientific studies regarding the effects of death penalty attitudes (e.g. Wilson, 1964; Goldberg, later

published in 1970; Kalven & Zeisel, 1966), the Court ruled that the empirical evidence was too “tentative and fragmentary” to establish that jurors not opposed to the death penalty tended to favor the prosecution in the determination of guilt (*Witherspoon v. Illinois*).

The Court ultimately sided with *Witherspoon* however, stating that the imposition of the death penalty by a “hanging jury” would be unconstitutional, and that removing all jurors who express at least a concern with the death penalty, “stacked the deck” against the defendant in the sentencing phase (*Witherspoon v. Illinois*). Expressing concern with the State’s implicit belief that a death scrupled juror could never vote for the death penalty, the Court instead expressed belief in the possibility that an individual could put aside attitudinal biases and decide on the facts of the case, making “their scruples subservient to their duty as jurors” (*Witherspoon v. Illinois*). Therefore, a new standard for excluding jurors from capital cases was created such that only individuals who made it unmistakably clear that they would refuse to vote for the death penalty in any case, regardless of the evidence, could be excluded from jury service.

In the case of *Wainwright v. Witt*, 469 U.S. 412 (1985), the Court adopted a new standard for exclusion. This standard, previously used in *Adams v. Texas*, 448 U.S. 38 (1980), determined that a juror could be excluded for cause if his/her views would “prevent or substantially impair the performance of his duties as a juror in accordance with his instructions and his oath” (*Adams v. Texas*, p 45). Thus, the new *Witt* standard broadened the focus of juror bias to potentially include all aspects of a trial wherein the juror may act in a manner inconsistent with the oath of impartiality, including the culpability phase.

In *Lockhart v. McCree*, 476 U.S. 162 (1986), the Court explicitly addressed the issue of guilt proneness of capital jurors. McCree appealed his case to the Supreme Court stating that through the process of death qualification, the State systematically skewed the jury toward conviction, thus depriving him of his constitutional right to an impartial jury. McCree asked the Court to consider available social science research in support of his contention that death qualified jurors were more conviction prone, (citing “various polls conducted between 1953 and 1981,” Zeisel, 1968; Wilson, unpublished manuscript, 1964; Goldberg, 1970; Jurow, 1971; Cowan, Thompson & Ellsworth, 1984; Bronson, 1970; Bronson, 1980; Fitzgerald & Ellsworth, 1984; Thompson, Cowan, Ellsworth, & Harrington, 1984; Ellsworth, Bukaty, Cowan, & Thompson, 1984; Young, unpublished study, 1981; and Haney, 1984). However once again the Court dismissed the findings, citing what they believed to be several “serious flaws” in the evidence provided, including the lack of deliberation on the part of participants in the studies. The Court stated that lacking such manipulations, the evidence did not allow for a prediction of the extent to which the presence of an excludable juror would influence the outcome of the guilt determination of a group of jurors (*Lockhart v. McCree*).

In sum, it seems that even though the Court is willing to concede that attitudes regarding the death penalty might play a role in conviction tendencies, the Court has been hesitant to concede that pre-existing attitudes influence jurors’ culpability determinations. Further, the Court seems to believe that even if attitudes are influential, the process of deliberation would be effective in eradicating those effects. Absent empirical evidence regarding the effects of biases on juries instead of jurors, it is unclear whether this bias would be evident at the group level. Studies in social psychology have yet to address the

Court's concerns with regard to deliberation. While the finding of biased information processing is robust, it remains so only at the individual level.

Effects of Capital Punishment Attitudes on Jurors' Judgments

Social psychological studies of juror decision making have shown that jurors who hold extreme death penalty attitudes process information differently than those opposed to the death penalty (e.g., Butler & Moran, 2002; Cowan, Thompson & Ellsworth, 1984; Luginbuhl & Middendorf, 1988). More specifically, Butler and Moran (2002) found that individual mock jurors who held pro-capital punishment attitudes selectively attended more to aggravating factors in making their sentencing recommendations than those who were not in favor of the death penalty (see also Luginbuhl & Middendorf, 1988). The opposite is true for those holding anti-death penalty attitudes, who instead attended more to mitigating factors. Furthermore, Luginbuhl and Middendorf found that opponents of the death penalty were also less accepting of the aggravating factors as well. As such, the testimony regarding aggravating and mitigating circumstances was processed by each juror in relation to his or her individual schema about the crime (Luginbuhl & Middendorf, 1988).

In terms of differences in information processing, Cowan et al. (1984) found that group composition influenced memory for attitude-consistent evidence such that those on mixed juries remembered the overall evidence more accurately than did those on homogeneous juries. They also found that individuals on death qualified juries were more likely vote for conviction. Thompson, Cowan, Ellsworth, and Harrington (1984) found that jurors who favored the death penalty resolved ambiguous testimony in a manner consistent

with the prosecution theory or “script” of the case, while jurors who opposed the death penalty resolved conflicts and uncertainties in a manner more amenable to the defense. They also suggested that based on the results of their study, death qualified jurors would have a lower threshold for conviction than those opposed to the death penalty. Concomitantly, Fitzgerald and Ellsworth (1984) found differential schemas between pro- and anti-capital punishment individuals such that those who were against the death penalty had more of a due process belief orientation and those in favor held crime control orientations. They also found that excludable jurors were more likely to agree that it is better for society to let some guilty defendants go than to risk convicting an innocent person.

Finally, Kaplan and Miller (1978, Experiments 1 and 2) examined the effects of enduring or stable trait biases in jurors when asked to judge hypothetical traffic felony cases. Kaplan and Miller separated participants into two groups based on their possession of either lenient or harsh attitudes toward punishment of criminals, similar in nature to the orientations studied by Fitzgerald and Ellsworth (1984). These studies indicated that that subjects’ a priori biases toward criminals affected their judgments of defendants, such that harsh subjects assigned greater guilt ratings than did lenient subjects, independent of the evidence given. Kaplan and Miller also found that when evidence was questionable, participants would discount information inconsistent with their bias.

If death qualified jurors are more likely to attend to and remember prosecution witnesses and evidence, have less stringent criteria for conviction

and assign greater guilt ratings than those opposed to the death penalty, there seems to be ample evidence for the contention that death qualified jurors will be more likely to convict in capital cases. This is due not only to pre-existing attitudes themselves, but also to general orientations which affect their interpretations and weighting of the evidence at trial, all but guaranteeing a guilty verdict by death qualified jurors. But jurors do not make determinations alone (a capital jury consists of no less than 12 members). It is possible that propensities at the individual juror level will not be informative with regard to what happens at the group level.

Deliberation as a Moderator of Bias

According to Cowan et al. (1984), the wisdom of the jury is collective, emerging when a group of ordinary citizens with different backgrounds deliberate together to reach a decision that represents the common sense of the community. An implicit assumption in the individual studies of juror decision making is that the jury as a group will be similar to the aggregate of the individual jurors' propensities and preferences. But the impartiality of a jury depends on its *aggregate* propensity to not favor the prosecution or defense, in addition to the impartiality of individual jury members (Thompson, 1989), and studies have yet to demonstrate that *juries* as opposed to *jurors* would be biased against the defendant after death qualification procedures (Filkins, Smith & Tindale, 1998). The Supreme Court (as implied in *McCree*) seems to believe in the possibility that group deliberations may overcome the effects of

individual juror biases, but this is an empirical question that awaits scientific examination.

Studies of jury decision making unrelated to attitudes indicate that the Court's assumptions may have merit by demonstrating that sometimes deliberating juries are less biased than individual jurors (Kaplan & Miller, 1978; Kerr, Niedermeier, & Kaplan, 1999). However, other studies of jury deliberations have found that biases are exacerbated at the group level (Bray & Noble, 1978). Given that the literature supports both possibilities, a brief review is offered.

Kerwin and Shaffer (1994) provided suggestive evidence as to the possible effects of jury deliberations on attitudinal biases. The role of instructions given by a judge to ignore inadmissible testimony was examined and results indicated that while individual jurors had difficulty ignoring the effects of preexisting biases on their own decisions, the process of group deliberation had the effect of overcoming these biases. Furthermore, verdict recommendations showed evidence of decreased bias even though individual beliefs as to the defendant's guilt remained unchanged. Inasmuch as verdict preferences are indicative of one's attitude towards the defendant, this study provides inferential evidence that although the individual juror's attitudes toward the defendant with regard to guilt remained unchanged, the group's decision may not show evidence of those attitudes.

Another study that found evidence of bias attenuation was done by Kaplan and Miller (1978, Experiment 3), who showed that after deliberation, jurors were generally less influenced by extralegal, biasing information. For this experiment, mock jurors who had seen a reenacted attempted manslaughter trial deliberated regarding the degree of guilt of the defendant. The bias in this study stemmed from mood of the jurors and was

created by an annoying attorney (either prosecution or defense). Participants were informed that the case would last no longer than 15 minutes, but in the annoying attorney conditions, attorneys prolonged the case so that it lasted 50 minutes. Finally, strength of evidence against the defendant was manipulated such that case materials were designed to reflect either a high degree of guilt, or a moderately strong appearance of innocence. Jurors were given 10 minutes to deliberate to reach a verdict in the case, but no group consensus was required or recorded.

Results of this study indicated that participants were harshest on the defendant when his attorney was the cause of the annoyance, and most lenient when it was the prosecuting attorney who was at fault. After deliberation however, individuals' ratings polarized toward the dominant valence of the evidence (incriminating or exonerating) and away from the bias induced by trial conditions (Kaplan & Miller, 1978).

Kaplan and Miller also found an overall pattern of polarization in the control conditions (e.g. no annoyance conditions), which revealed that participants in these conditions polarized towards their initial preferences. These effects demonstrate that it is possible that both bias attenuation and polarization result from group deliberations, and that the effects of bias can be separated from the effects of group polarization.

Kerr et al. (1999), extending the work from Kaplan and Miller (1978), sought to determine if case severity was a moderator of the relation between individual level and group level biases in juries. They also found evidence of both attenuation and exacerbation. The authors wanted to determine whether bias stemming from pretrial publicity would be constrained by available evidence. Kerr et al. found evidence of bias attenuation only in extreme cases when the evidence was weak. On the other hand, Kerr

et al. found evidence of bias exacerbation when case materials moderately implicated the defendant. Thus, both attenuation and exacerbation are possible, depending on the extremity of the evidence against the defendant (see also Kalven & Zeisel, 1966, for similar findings).

Overall, these studies indicate that the effects of extrinsic biases are limited such that they may only influence group verdicts when the evidence provides little insight as to the correct verdict, and given their potential transparency, extrinsic biases are subject to attenuation by the group. However, it should be noted that Kerwin and Shaffer (1994), and Kaplan and Miller (1978) are merely suggestive as to the effects of deliberation on internal biases given that these studies investigated the role of external biases on verdict outcome. Whereas many of the previous studies (Kaplan & Miller, 1978; Kerr et al., 1999; Kerwin & Shaffer, 1994) have studied biases that come from outside of the individual, attitudes towards capital punishment are internally located.

Bray and Noble (1978) studied the effects of deliberation on internal attitudinal biases. Participants in this study deliberated on homogeneous six person juries to a unanimous verdict and sentencing recommendation after listening to an audiotaped recording of a murder trial. For individual jurors, shifts occurred in the direction of not guilty from pre-deliberation to post-deliberation preferences, and that this effect was especially pronounced for high authoritarians (bias attenuation). Individuals high in authoritarianism also reported being significantly more likely to convict when the death penalty was an option. Bias enhancement was evident in jury verdicts such that deliberations produced attitude-consistent shifts towards greater punishment severity for high authoritarians and towards leniency for low authoritarians. In fact, although most

juries reached a not guilty verdict, all that reached a guilty verdict were high authoritarians. The results of this experiment, like those of Kaplan and Miller, indicate that both attenuation and exacerbation are possible.

Davis, Spitzer, Nagao, and Stasser (1978) also examined the effects of pre-existing attitudes on individual and group level verdicts. Jurors were labeled pro-prosecution, pro-defense and moderate and were randomly assigned to homogeneous six person juries and asked to reach a verdict for a defendant on trial for rape. Results indicated that jurors' pretrial opinions affected guilt judgments at both the individual and the group level, although the two levels did not significantly differ from each other. Attenuation was found for pro-prosecution and moderate groups (as compared to individual level preferences) such that fewer groups chose guilty than individuals before deliberation. On the other hand, exacerbation was found for those who were pro-defendant such that the percentage of groups recommending guilt was less than the percentage of individuals recommending guilt. As in previous studies however, there was an overall trend in all juries towards acquittal (similar to Bray & Noble, 1978; Kerr et al., 1999; and Davis et al., 1978), regardless of biasing condition which makes these results difficult to interpret.

The finding of an overall movement towards acquittal after deliberation suggests there may indeed be a reason to expect bias attenuation after group deliberations. Group verdict preferences were more lenient than jurors' initial preferences. On the other hand, other studies have indicated that at times, groups may in fact exacerbate individual level biases (e.g. Kerr et al., 1999; Kaplan & Miller, 1978), especially when like-minded (biased) subjects deliberate together (Davis et al., 1978). In order to resolve conflicts in

the literature and determine what is likely in the case of attitudinal biases, what is needed is a paradigm that allows for examination of how individual preferences are combined to produce collective outcomes. For this task, the SDS approach is particularly useful.

Social Decision Schemes and Bias

Davis' (1973) Social Decision Scheme (SDS) model describes how groups move from individual inputs to a collective output. Davis' goal was to conceptualize a method of studying groups that answered questions regarding process without directly observing group interactions (Levine, 1999).

The model begins with the assumption that small group interaction can be seen as a combinatorial process where task elements (e.g. ideas, task responses, preferences, etc.), must be combined in such a way as to allow a group to reach consensus on a particular task (Tindale et al., 1996). According to Tindale and Kameda (2000), the degree of sharedness among group members affects how groups reach consensus, how they use and share information, and which members and arguments are most influential during discussion. A shared representation is any task/situation relevant concept or norm, perspective or cognitive process that is shared by most or all of the group members, and its depends on the degree to which it is shared among group members (Tindale, Smith, Thomas, Filkins & Sheffey, 1996). Tindale's work in the area of shared representations is informative as to which social decision scheme is likely to operate in a particular jury based on shared opinions and beliefs in that jury. As such, the SDS model holds promise for elucidating group process if the initial distribution of opinion is known before group deliberation. Further, the SDS model allows for predictions of outcomes under different assumptions about group process.

Investigations using the SDS approach have found that when it comes to jury decision making in general, the scheme that best fits is a Majority Wins, Defendant Protection Otherwise (Davis et al., 1981; Tindale & Davis, 1983). In this scheme, depicted in Table 1, a 2/3 initial majority often ultimately determines the group verdict as shown by the 1.00 probability listed in the guilty column. Lacking a clear 2/3 majority, a defendant protection subscheme prevails. In other words, when jurors are closely divided at the start of deliberation, factions favoring acquittal are somewhat more likely to prevail than factions favoring conviction—a pattern ultimately attributable to the law’s injunction to give the defendant the benefit of any reasonable doubt (Kerr et al., 1999). The defendant protection subscheme has also been referred to as the leniency bias (MacCoun & Kerr, 1988).

Table 1

2/3 Majority-Wins, Defendant Protection Otherwise Social Decision Scheme

Individual Distribution	Verdict Probability	
	Guilty	Not Guilty
6-0	1.00	.00
5-1	1.00	.00
4-2	1.00	.00
3-3	.00	1.00
2-4	.00	1.00
1-5	.00	1.00
0-6	.00	1.00

The SDS analysis also allows for a determination of the extent to which the social decision process itself depends upon extralegal factors or biases. In other words, if one were able to show that the decision process is different for juries composed solely of advocates of the death penalty than it is for mixed juries, then a strong case can be made

for bias in that the same evidence yields very different outcomes. More specifically, it is possible that the 2/3 Majority, Defendant Protection Otherwise process best describes jury research because the predominant shared representation among jurors is the leniency bias.

On the other hand, the process of death qualification ensures that all jurors share the additional representation of favoring the death penalty. In this case, a different SDS matrix may be descriptive of jury decision making, the Truth Supported Wins scheme (Laughlin, Kerr, Munch & Haggarty, 1976), which is depicted in Table 2. For the purposes of the present experiment, this decision scheme could be labeled as Conviction Supported Wins (Stasser, 1999). In this decision scheme, groups with at least two members appealing to a demonstrable answer will reach consensus on that answer most of the time reflecting an asymmetric influence toward the correct answer (Tindale et al., 1996).

Table 2

Conviction Supported Wins Decision Scheme

Individual Distribution	Social Decision Scheme	
Guilty–Not Guilty	Guilty	Not Guilty
6-0	1.00	.00
5-1	1.00	.00
4-2	1.00	.00
3-3	1.00	.00
2-4	1.00	.00
1-5	.40*	.60*
0-6	.00	1.00

*The Truth Supported Wins scheme is modified for this distribution to illustrate the bias towards conviction. This is for illustrative purposes only and is not intended as a point prediction.

Just as the leniency bias is easier to defend than conviction (Stasser, 1999) in mixed juries, it is possible that for death qualified jurors, conviction is easier to defend than leniency. This is expected to be the case because finding a defendant guilty and sentencing him/her to death is demonstrably consistent with the shared crime control representation held by death qualified jurors. In other words, conviction supported wins.

Therefore, two different SDS schemes are possible depending on the attitudes and biases held by jurors. The 2/3 Majority, Defendant Protection Otherwise scheme that has been commonly found in jury research (Davis et al., 1981; Kerr et al., 1999; Tindale & Davis, 1983) should account for mixed jury verdicts. It is expected that if jurors share no other representation among them other than the shared leniency bias, and are mixed with regard to death penalty attitudes, the 2/3 majority scheme will provide a good fit to the data. On the other hand, if jurors are homogeneous, sharing the representation of favoring the death penalty, it is expected that something closer to the Conviction Supported Wins scheme will be better fit because the shared representation of conviction should be easier to defend.

Conclusions and Predictions

A number of empirical questions need to be answered to better understand the effects of death qualification at the collective or jury level. First, the question of whether or not death qualified juries, like individual jurors, are more conviction prone has yet to be answered. A second and related question is whether attitudinal biases that are evident at the individual level are attenuated or exaggerated by group deliberation. In other words, will jury decisions (when compared to individual juror preferences) show

evidence of bias attenuation as found by Kerr et al. (1999), and Kerwin and Shaffer (1994), or exaggeration as shown by Bray and Noble (1978)?

Finally, it is important to establish whether attitudinal biases substantially influence the group process for death qualified juries. Does sharing positive attitudes towards the death penalty change the process such that different relationships between individual inputs and group responses for death qualified and mixed juries are observed? More explicitly, using an SDS approach, will death qualified jury outcomes be better described by a 2/3 Majority, Defendant Protection Otherwise scheme or will Conviction Supported Wins be a better fit to the data?

In response to the first question, and in keeping with the findings of previous literature (e.g. Butler & Moran, 2002; Cowan, Thompson & Ellsworth, 1984; Luginbuhl & Middendorf, 1988), it is expected that death qualified juries will indeed be more conviction prone than mixed juries¹. With regard to the second research question, it is expected that attitudinal biases will be enhanced by deliberation in juries composed only of individuals in favor of the death penalty. This hypothesis assumes that conviction, and possibly death is the equivalent of a demonstrable solution for those holding pro-capital punishment attitudes. On the other hand, for individuals in favor of the death

¹ Readers may ask if the predictions of the current study are similar to predictions that may come about as a result of group polarization. Group polarization occurs when there is a shift towards extremity in the direction of initial preferences after deliberation (Myers & Kaplan, 1976). There are two reasons why the predictions of the current study are not accounted for by group polarization. First, the predictions of the current study are consistent with the findings of Bray and Noble (1978), Kerr et al. (1999), and Davis et al. (1978), all demonstrating a shift in the direction of acquittal after group deliberations. Group polarization would predict in each of these experiments that the group would have polarized towards conviction instead of acquittal, given the initial propensities of the jurors in these groups. Second, polarization would predict that in all distributions where there is a majority for conviction, conviction is even more likely. However, note that the current study predicts bias exacerbation, and increased conviction proneness, even when there is not a majority in favor of conviction. For both the (2-2) and (1-3) distributions examined in this study, conviction proneness was expected and can only occur if the bias in the group is accentuated by deliberation. Given that there is no majority in favor of conviction in either of these cases, polarization is not able to account for any observed conviction proneness in these two distributions.

penalty who deliberate in mixed juries, individual bias attenuation is expected because the shared representation on this type of jury is of leniency. As a group, the 2/3 Majority, Defendant Protection Otherwise scheme is expected to be a good fit. More specifically, even though the same evidence will be considered by both kinds of juries, the presence of all like minded others on a deliberating jury will enhance the bias in homogeneous juries, leading to an asymmetry in the group towards conviction. Similarly, the absence of all like minded others will attenuate the bias on mixed juries, leading towards an asymmetrical pull towards acquittal.

CHAPTER II

METHOD

Pilot Testing

Before the main study was performed, it was necessary to find a stimulus video that had moderate implications of guilt and resulted in initial verdict preferences of around 55% not guilty, 45% guilty (consistent with Kaplan & Miller, 1978). A total of around 200 participants total were used in pilot testing the various versions of video. In these initial sessions, various pieces of evidence from the original trial were included and excluded, and narration was added until the desired conviction rates were achieved.

Participants and Design

A total of 549 individuals participated in the current study; however responses from only 316 were included in the analyses. Responses from the additional 233 were not included due to failure to meet selection criteria based on the combination of attitude towards the death penalty and initial verdict preference. Participants were recruited from Texas Tech University and Lamar University. Texas Tech students were recruited from the introductory psychology participant pool, in which case they received partial course credit in accordance with standard procedures on file with the IRB. Participants were also recruited from business administration and political science courses and offered extra credit in those courses for their participation. Students from Lamar University were similarly recruited from introductory psychology courses and offered partial course credit. For all participants, the requirements of the study specified that only those individuals who were over the age of 18 and entitled to vote were allowed to participate, ensuring that all participants in the study were jury eligible.

Participants' attitudes towards capital punishment were identified by responses to a questionnaire. On the basis of attitude, individuals were then randomly assigned to deliberating juries that were either homogeneous as to favoring the death penalty or mixed. Mixed juries, for the purposes of this experiment, were defined any jury that contained at least one opposed/ambivalent individual, and homogeneous juries were those that contained no opposed/ambivalent individuals. The main goal of this study was to examine potential differences in group process among all pro-capital punishment homogeneous juries, and juries consisting of a mix of attitudes towards capital punishment. There were two independent variables examined in this study, verdict distribution and jury composition. The verdict distributions examined in this study were either 2-2 (indicating two participants initially favoring guilty pre-deliberation, and two participants favoring not guilty), and 1-3 (one participant favoring guilty and three favoring not guilty). Examination of the probabilities for the social decision schemes predicted in this study ($2/3$ majority defendant protection otherwise, and conviction supported wins) reveals similar predictions for the 4-0, 3-1 and 0-4 distributions. Since it is only in two distributions where biases towards conviction or leniency are expected to show differences, the 2-2 and 1-3 distributions, only these distributions were considered for the purposes of this study. Jury size was held constant at four members, and this number was chosen for purely practical reasons given the cell size requirements for most statistical analyses. In addition, there was precedent for the use of four person juries in studies of biases on juries (Kerr et al., 1999). Thus, the resulting design was a 2 Verdict Distribution (2-2 vs. 1-3) x 2 Jury Composition (homogeneous vs. mixed) between

subjects design examining a number of dependent measures which are described in further detail below.

Stimulus Materials and Procedure

All participants in the study were first administered an Attitudes Towards Death Penalty questionnaire (Appendix B). Scores on this measure ranged from 0 (not at all in favor of the death penalty) to 45 (extremely favorable towards the death penalty). Chronbach's Alpha reliability estimate for an unpublished study by the current author using this measure was $\alpha = .90$. For Texas Tech students, this questionnaire was included in the mass survey, a large survey administered to all introductory psychology students at the beginning of each semester. Participants not in introductory psychology filled out the questionnaire prior to their participation in the study. This questionnaire assessed participants' attitudes with regard to capital punishment, functioning similarly to the voir dire process in an actual capital case. The survey also contained items that, in an actual voir dire, would be exclusionary if answered in the affirmative (e.g. "I think that the death penalty should be automatically given for certain crimes"), to allow for later examination of juror criteria. Based on their responses, subjects were categorized as pro-death penalty or opposed/ambivalent for the purposes of assignment into juries. Individuals scoring in the top 25% were considered pro-death penalty, whereas all other participants were considered opposed/ambivalent.

Each experimental session contained up to 60 participants. A complete script for sessions is in Appendix C. Upon arrival at the experiment site (a large classroom), subjects were checked in and seated in a large room in alphabetical order in order to reduce the chances of acquaintances sitting together. They were told that they were

participating in an experiment designed to examine jury decision making. They were informed that they would be watching excerpts from a criminal trial and asked to make determinations regarding the defendant in this case. Participants were instructed not to talk to each other at any time during the trial presentation, nor afterwards, until told to do so by the experimenter. They were also informed that one of the goals of the study was to make the experiment as realistic as possible and as close to a real jury situation as possible.

The video contained excerpts of the actual murder trial of Terri Gilbert, (*New Mexico v. Terri Gilbert*) recorded from CourtTV. Ms. Gilbert was accused of murdering her husband in cold blood due to issues of jealousy and anger over their impending divorce and over an affair Mr. Gilbert had been having. Ms. Gilbert contended that it was self-defense. Mr. Gilbert was shot three times in the basement of their home. The tape contained excerpts from opening statements, witness testimonies including cross examinations and closing arguments. At the conclusion of the video, there was a videotaped jury charge. The jury charge provides the judge's instructions as to the case and the applicable law, taken from actual trial instructions used in the State of Texas. The jury charge also instructed them to select a jury foreman when they began their deliberations. The entire tape was approximately 30 minutes long². In addition to the

² It should be noted that a limitation of the present study was that the case used was not a capital case. While the sentencing materials provided the opportunity to recommend the death penalty for the defendant (and 3 participants selected this option), nowhere in the video itself or the jury instructions was the death penalty mentioned. So while the case did involve a brutal murder, the facts of the case did not meet the established legal criteria for a death penalty case (e.g., the murder of a peace officer or fireman acting in the lawful discharge of his office and who the defendant knows is a peace officer or fireman; the murder is committed while escaping or attempting to escape from a penal institution; the defendant murders a person under six years of age, etc.). For purposes of the current study as a stimulus case, legal concerns had to be weighed with the necessity that the case be moderate in its implications of guilt in order for the bias to be relevant. In the end, the participants were responding to the facts of a brutal murder case, and this was felt to be sufficient for the purpose of triggering ideas and attitudes toward capital punishment.

video, subjects received and reviewed written accounts of information from the trial, as well as a written account of the jury charge.

During the time that participants were watching the videotaped trial, assistants of the experimenter were matching them with their scores on the Attitudes Towards Death Penalty Scale. After watching the trial tape, participants were asked to respond to questions regarding individual verdict and sentencing preferences, as well as questions regarding the importance of different pieces of evidence to their verdict preference (Appendix D). These questionnaires were collected, and participants were given a 10 minute break. They were instructed again not to talk to each other during the break about the case or their verdict preferences.

During the break, participants were assigned to four-person groups depending on their verdict preferences and death qualification status. Groups were either homogeneously composed of all pro-death penalty members, or mixed. Assignment to groups was randomized after categorization required by the design of the experiment (based on favoring guilt or innocence, and pro-death penalty or opposed/ambivalent). A total of 20 four-person groups per cell were run for each group composition, for a total of 320 participants in all. Once groups were composed, groups were given a jury number and taken to a separate room to deliberate. They were informed that they had a total of 30 minutes to deliberate to a verdict and sentence and asked to use as much of this time as possible in order to thoroughly deliberate the issues of the case. They were told that their job was to deliberate until a unanimous verdict was achieved. The group verdict recommendation form can be found as Appendix E. Juries reaching a guilty verdict were provided with a sentencing recommendation form, and asked to deliberate again until a

sentencing recommendation was reached. The sentencing recommendation form is attached as Appendix F.

Juries were given a total of 40 minutes to deliberate for both verdict and sentencing recommendations. Juries deliberating for more than 30 minutes for the verdict phase were asked by their research assistant to attempt to wrap up deliberations in the next 10 minutes and reach a consensus (in order to ensure enough time for sentencing deliberations). Juries reaching a verdict before 30 minutes had elapsed were given the remaining time of the 40 minutes to deliberate to a sentencing recommendation. Juries attempting to declare themselves hung before 35 minutes had elapsed were asked to resume deliberations and asked to attempt at all costs to reach a decision. After 40 minutes of deliberation for the verdict phase, juries were declared hung if they had not reached a verdict. Only two juries out of the 80 total declared themselves hung and their responses were not included in the analysis.

Upon completion of all group forms, the research assistant asked participants to separate themselves in the classroom and gave them another individual questionnaire, similar to the initial questionnaire filled out before group deliberation (Appendix G). In addition to verdict and sentence preference questions, the second individual form contained a number of questions aimed at group process, including: realism of the experimental situation, impressions of group deliberations and group members, assessments of others' opinions both before and after deliberation, fairness, thoroughness in deliberations and discussion of the evidence, satisfaction with group verdict choice and weighting of testimony. After completing all individual and group measures, each group was debriefed, thanked for their participation and assigned credit for their participation.

CHAPTER III

RESULTS

Preliminary Analyses and Data Screening

Before analyses were performed, the data set was examined to determine whether assumptions would be met for the various statistical analyses used. The total sample size was 316, resulting in unequal sample sizes in some of the cells examined. More specifically, there were only 19 homogeneous 2-2 distributions in the analyses, while all other conditions contained 20. According to Tabachnick and Fidell (2001), with small differences in variance and two-tailed tests, a discrepancy in sample sizes does not invalidate the use of MANOVA. On all dependent measures, the ratio of largest to smallest variance was less than 10:1, so the assumptions regarding sample size and homogeneity of variance were not presumed to be violated.

The data were also examined to determine the presence of univariate outliers and none were found beyond the .001 level. There was one case in the combined group level data set that was identified as a potential multivariate outlier. Given that this case was categorized as a homogeneous 2-2 distribution group, the options were to remove the case from the analysis resulting in further unequal cell sizes, or retain the case for the analysis. Analyses were repeated after removing the case, and results of these analyses did not differ from the results when the case was retained. Therefore, the decision was made to retain the case to preserve similar cell sizes as much as possible. Tests of multicollinearity were also sufficient for the use of multivariate analysis of variance.

Finally, there was missing data for 64 cases, however it was localized on the last two questions of the questionnaire (personal sentencing recommendation and crime

certainty) and was mostly attributed to time constraints and not due to any systematic pattern of exclusion. Therefore, all cases were included in the analyses.

Since the data for the present study was collected at two different universities in Texas, analyses were done to ensure that there was no confounding due to the use of different subject pools. A one way analysis of variance was conducted on pre-deliberation verdict preferences and indicated no significant differences in participants from the two schools, $F(1, 314) = .375, p > .05$, suggesting that students from Texas Tech University were no more guilt prone than students at Lamar University.

For all analyses examining verdict preferences, a composite score was created by multiplying verdict outcome (1 for guilty, -1 for not guilty) by the 1 to 9 rating of certainty. This rating asked how certain individuals were that their verdict choice was correct. Thus, the verdict score analyzed ranged from -9 to 9, and was the product of participants' verdict preference and their certainty in that preference (see Kaplan & Miller, 1978 for similar approach).

Further, because comparisons were being made between individuals and the same individuals as members of groups, in all analyses that compared individual pre-deliberation responses with group level (jury) responses, or postdeliberation responses, an aggregated mean of the individual responses contained in each group was used in the analysis, rather than each individual score alone.

For all analyses at the multivariate level, Wilks' Lambda criterion was used, and univariate follow up tests for within-subject effects were interpreted using Greenhouse-Geisser. For all pairwise posthoc comparisons, Bonferroni corrections were applied.

Individual Level Analyses

Death Penalty Attitudes

To determine whether those labeled pro-death penalty and those labeled opposed/ambivalent actually differed before being assigned to deliberate in groups, a one way analysis of variance was performed on scores on the death penalty attitudes questionnaire (scores ranged from 0-40). The mean for the pro-death penalty attitudes group ($M = 36.57$) significantly differed from the mean of the opposed/ambivalent group ($M = 17.78$), $F(1, 314) = 627.46, p < .001$.

In order to examine the effects of death penalty attitudes on predeliberation measures, adjustments were made to the data set. It was necessary to examine responses from both subjects who were not selected for participation in this study ($n = 232$), and the subjects who were selected for participation ($n = 316$). Since participants in the study were selected for further study on the basis of a combination of their death penalty attitude score and verdict preferences, there was a necessary relationship (in different directions) between the two in both sets of data. For example, participants retained were more likely to be pro-capital punishment and not guilty, and the participants in the unusable data set were more likely to be opposed/ambivalent and guilty. Therefore, combining the usable and unusable data sets resulted in an unbiased set that represented the entire range of possible values in the subject pool.

Death Penalty Attitudes and Verdict Preferences

Results from a point biserial correlation performed on death penalty attitude scores and predeliberation verdict preferences in the unbiased data set indicated no significant correlation between the two ($r = .035, p > .10$). This suggests that in the entire

data set ($n = 548$), there was no reliable relationship between attitudes and predeliberation tendencies towards conviction. There was also no reliable relationship between the combined verdict x certainty rating and death penalty attitude scores ($r = .038, p > .10$).

Death Penalty Attitudes and Information Processing

Next, the responses from pro-death penalty and opposed/ambivalent participants in the usable data set were examined to see if any differences existed in ratings of the influence of prosecution and defense witnesses before group assignment and deliberation. Results of a 2 (attitude) x 2 (side) Repeated Measures Analysis of Variance indicated significant main effects of side [$F(1, 314) = 7.39, p < .01$], and attitude [$F(1, 314) = 124.92, p < .001$]. However, both were qualified by a significant attitude x side interaction, $F(1, 314) = 73.40, p < .001$. The means are presented in Table 3. Simple main effect analyses indicated that pro-death penalty individuals rated the prosecution's witnesses as more influential in their verdict preferences than opposed/ambivalent participants did, $F(1, 205) = 24.97, p < .001$. Not surprisingly, opposed/ambivalent participants rated the defense witnesses as more influential than prosecution witnesses $F(1, 205) = 47.44, p < .001$.

Table 3

Means and Standard Errors for the Attitude x Side Interaction For Predeliberation Witness Ratings

Attitude	Side	Mean	Standard Error
Pro-death penalty	Prosecution	44.25	1.44
	Defense	32.11	1.44
Opposed/Ambivalent	Prosecution	38.29	1.70
	Defense	61.71	1.70

Analyses were also conducted on postdeliberation measures to determine whether any differences existed between high and opposed/ambivalent individuals in crime control and conviction threshold ratings.³ Results of one way analyses of variance revealed no differences among the two groups in crime control orientation, ($F < 1$). No differences emerged in conviction threshold ratings ($F < 1$), suggesting that the two groups did not appreciably differ in the extent to which they had to be certain a defendant committed the crime before voting for conviction.

The only difference that emerged after deliberation between pro-death penalty and opposed/ambivalent jurors was in perceptions of group process. Significant differences were revealed between pro-death penalty and opposed/ambivalent individuals in ratings assessing satisfaction with the group process, $F(1, 314) = 23.26, p < .001$. Pro-death penalty participants indicated greater satisfaction ($M = 76.85$) with the group process than opposed/ambivalent participants did ($M = 70.01$).

³ These questions appeared only on postdeliberation measures and as such, were not independent of the effects of deliberation. However, questions concerning individual death penalty attitudes can only be meaningfully analyzed at the individual level.

Group/Jury Level Analyses

Social Decision Schemes

Table 4 presents the verdict and sentencing voting patterns for all 80 juries examined in the present study. Table 5 depicts the two predicted social decision schemes for the distributions examined in the current study.

Table 4

Verdict Preferences by Frequency and Probability for all Juries

	Homogeneous Juries		Mixed Juries	
Distribution	Guilty	Not-Guilty	Guilty	Not-Guilty
2-2	11 (.58)	8 (.42)	11 (.55)	9 (.45)
1-3	1 (.05)	19 (.95)	0 (.00)	20 (1.00)
Totals	12	27	11	29

Table 5

Conviction Supported Wins Social Decision Scheme

<u>Distribution</u>	<u>Guilty</u>	<u>Not Guilty</u>
(2-2)	1.00	.00
(1-3)	.60	.40

2/3 Majority, Defendant Protection Otherwise Social Decision Scheme

<u>Distribution</u>	<u>Guilty</u>	<u>Not Guilty</u>
(2-2)	.00	1.00
(1-3)	.00	1.00

As is clear from the obtained results presented in Table 4, verdicts from both homogeneous and mixed juries do not fit either type of predicted decision scheme well. Results from binomial non-parametric tests verify that the observed frequencies were significantly different from the predicted values of the Conviction Supported Wins Social Decision Scheme, $p < .001$. A similar binomial test indicated that the observed values differed significantly from the predicted values for mixed 1-3 juries of 0 guilty, 20 not-guilty as predicted by 2/3 Majority, Defendant Protection Otherwise, $p < .001$. Statistically, these models can be rejected. Instead, another decision scheme seemed to offer a better fit to the data, the Majority Wins, Equiprobability Otherwise Scheme (Laughlin, Kerr, Munch & Haggarty, 1976). This decision scheme is depicted in Table 6.

Table 6

2/3 Majority, Equiprobability Otherwise Social Decision Scheme

<u>Distribution</u>	<u>Guilty</u>	<u>Not Guilty</u>
(2-2)	.50	.50
(1-3)	.00	1.00

A non-parametric binomial test was performed comparing the observed proportions for both homogeneous and mixed 2-2 juries to the hypothesized proportions of .50 guilty, .50 not-guilty for 2-2 distributions in 2/3 Majority, Equiprobability Otherwise. Results indicated that the observed proportions of the homogeneous 2-2 groups of 11 guilty, 8 not-guilty do not significantly differ from hypothesized proportions of the Equiprobability scheme, $p > .20$. Similarly, the observed proportions of the mixed

2-2 juries of 11 guilty, 9 not-guilty do not differ from the hypothesized proportions of the Equiprobability scheme, $p > .20$. Thus, it can be concluded that the 2/3 Majority, Equiprobability scheme fit observed verdict frequencies better than the originally predicted decision schemes. Binomial tests also indicated that the obtained probabilities in the homogeneous 2-2 and mixed 2-2 juries do not significantly differ from each other, $p > .20$.

The 2/3 Majority, Equiprobability Otherwise social decision scheme appears to be a better fit than the predicted 2/3 Majority, Defendant Protection Otherwise scheme also because in the present experiment, no tendency toward leniency appeared in 2-2 juries. In other words, if defendant protection were operating in these juries, in the case of a 2-2 split, juries should have decided in the direction of not-guilty. Instead, there were more guilty verdicts in 2-2 distributions (homogeneous = 58%, mixed = 55%).⁴

However, because of the insensitivity of dichotomous measures, there may have been differences between the two types of juries that were not evident in the dichotomous verdict choice, and those differences are explored in further detail below.

Verdict Preferences

Since the continuous dependent variable for verdict preferences was a product of verdict and certainty, it was necessary to ensure that there were no preexisting differences in certainty. Results of a univariate analysis of variance on certainty ratings showed a significant main effect of verdict, $F(1, 312) = 26.12, p < .001$, indicating that participants voting guilty on predeliberation measures were more certain ($M = 7.91$) than those voting not guilty ($M = 6.70$). One way univariate analyses of variance revealed similar patterns

⁴ These tendencies were not appreciably different than the results observed in pretesting for the stimulus case of an overall 55% guilty to 45% not guilty split.

for jury [$F(1, 77) = 4.08, p < .05$], and postdeliberation certainty ratings [$F(1, 314) = 11.17, p < .001$] wherein those choosing a guilty response (jury $M = 7.39$, post individual $M = 7.53$) also indicated higher levels of certainty than those choosing a not guilty response (jury $M = 6.25$, post individual $M = 6.67$). These results revealed a potential confound that could affect all levels of analysis.

To control for the effects of this systematic difference, certainty scores were standardized by guilt ratings. In other words, each of the predeliberation, group level, and postdeliberation certainty scores for participants selecting a guilty verdict were standardized separately from those selecting not guilty verdicts. Standardized scores were then transformed by adding a constant of 10 to each score so that all scores would be positive integers. This step was necessary because the scores were then multiplied by verdict preferences (-1 for not-guilty or 1 for guilty). Analyses were then performed on the standardized certainty x verdict scores (verdict preference scores). This alternative was chosen over a more standard covariation approach since covarying would remove the predeliberation verdict/certainty ratings from the analysis. Standardizing separately removed the effects of the potential confound while still retaining the predeliberation measures in the analysis.

The verdict preference scores for the three measures, predeliberation, group/jury level, and postdeliberation were then aggregated by jury and subjected to a 2 (distribution) x 2 (composition) x 3 (time) Repeated Measures Analysis of Variance. Results indicated a significant main effect of distribution, $F(1, 75) = 77.96, p < .001$, and a marginally significant main effect of time, $F(2, 74) = 2.59, p = .08$. However, both of these effects were qualified by a significant time x distribution interaction, $F(2, 74) =$

6.25, $p < .01$. Table 7 depicts means and standard errors for this analysis. Simple main effects tests revealed no differences among 2-2 juries across the three verdict measures. However for 1-3 juries, jury preferences favored acquittal significantly more than predeliberation ($p < .001$) and postdeliberation responses ($p < .01$). Postdeliberation verdict preferences were also significantly more in the direction of acquittal than predeliberation preferences after the Bonferroni correction ($p = .02$). No other main effects or interactions regarding verdict preferences were significant.⁵

Table 7

Means and Standard Errors Time x Distribution Interaction on Verdict Preferences

Distribution	Time	Mean	Standard Error
2-2	Predeliberation	.26*	.15
	Jury Level	1.47	1.19
	Postdeliberation	1.77	1.00
1-3	Predeliberation	-5.17*	.15
	Jury Level	-9.68	1.17
	Postdeliberation	-8.12	.98

* Negative values indicate ratings in the direction of acquittal, positive numbers indicate conviction, and greater displacement of numbers from zero indicates greater certainty.

While observed frequency counts for the 1-3 distributions can be accounted for by the unanimity requirement, analyses of verdict preference scores show that there is more going on than simple unanimity. Examination of cell means indicates that 1-3 juries showed evidence of group polarization in verdict preference scores in that the group

⁵ It might also be noted that these results are the same as the results from the unstandardized analysis with the exception of the significant difference between the jury and postdeliberation verdict preferences, which did not differ from each other in the unstandardized analysis.

response was more extreme in the direction of acquittal than individual preferences were. Further, this increased tendency towards acquittal persisted in postdeliberation responses, with a small amount of regression back towards initial values.

Sentencing Preferences

Observed frequency counts for sentences given can be found in Table 8. Given that sentencing recommendations were measured using categorical response options, ranging from no sentence to the death penalty, a discriminant function analysis (DFA) was performed on sentences to determine if any significant differences existed among the levels of the independent variables of composition and distribution. According to Menard (2002), when the dependent variable is nominal, or is an ordinal variable with few categories, a viable alternative to more complicated analyses is discriminant analysis. Discriminant function analysis can be used to examine the pattern of differences among the predictors as a whole in an attempt to understand the dimensions along which groups differ (Tabachnick & Fidell, 2007).

A discriminant function analysis was performed on jury sentences and revealed that the only dimension on which sentences varied was distribution $F(3, 75) = 13.67, p < .001$, accounting for 36% of the variance in sentences. With prior probabilities accounted for, the model containing distribution increased correct classification percentages to 68.4% (chance level is 50%). Thus, it can be concluded that by knowing the assigned distribution, the ability to predict the ultimate sentence chosen increases 18.4% beyond chance levels.

Table 8

Frequencies of Jury Sentence Recommendations

		<u>Homogeneous</u>		<u>Mixed</u>	
<u>Distribution</u>	<u>f</u>		<u>f</u>		
2-2	8	No Sentence (NG)	9	No Sentence (NG)	
	6	Prison Sentence	7	Prison Sentence	
	3	Life in Prison	3	Life in Prison	
	2	Death Sentence	1	Death Sentence	
1-3	19	No Sentence (NG)	20	No Sentence (NG)	
	1	Prison Sentence	0	Prison Sentence	
	0	Life in Prison	0	Life in Prison	
	0	Death Sentence	0	Death Sentence	

A separate DFA was performed on aggregated individual postdeliberation ratings with similar results to the group level analysis. Again, distribution was the only variable that significantly discriminated among groups $F(3, 74) = 10.76, p < .001$, accounting for 31% of the variance in postdeliberation sentences. With prior probabilities accounted for, the model containing distribution increased classification percentages to 62.8% increasing predictive percentages 12.8% beyond chance levels.

Evidence Use

Jurors were asked to rate the importance of a number of pieces of evidence presented at the trial (e.g., pictures of the gun, pictures of the body, etc.). These ratings were combined to produce a prosecution evidence rating and a defense evidence rating.

Since questions regarding the importance of various pieces of evidence appeared only on postdeliberation questionnaires, the ratings were not independent of potential effects of deliberation, so aggregated scores were analyzed. Thus there is no way to determine whether any *a priori* differences existed in ratings of evidence use among participants endorsing pro-capital punishment attitudes and those labeled opposed/ambivalent. A 2 (distribution) x 2 (side) x 2 (composition) Repeated Measures ANOVA was performed and indicated a significant main effect of distribution, $F(1, 77) = 29.16, p < .001$, which was qualified by a significant side x distribution interaction, $F(1, 77) = 28.79, p < .001$. Simple main effects tests for each distribution revealed significant differences in ratings between prosecution and defense evidence for both 2-2 [$F(1, 37) = 14.76, p < .001$], and 1-3 distributions [$F(1, 37) = 14.06, p < .001$]. Participants in 2-2 juries rated the prosecution's evidence ($M = 12.14$) as significantly more influential than the defense's evidence ($M = 9.83$). On the other hand, participants deliberating on 1-3 juries rated the defense's evidence ($M = 12.50$) as significantly more useful than the prosecution's evidence ($M = 10.00$).

Witness Ratings

Participants were asked to rate the usefulness of various witnesses testifying in the trial. Ratings of all prosecution and defense witnesses were combined to produce one score for prosecution and one for defense. These scores were subjected to a 2 (distribution) x 2 (composition) x 2 (side) x 2 (time) Repeated Measures ANOVA and the results revealed a number of significant effects. First, at the multivariate level, the main effect of side was significant, $F(1, 75) = 56.61, p < .001$. This effect however was

qualified by a significant two way interaction of side x distribution [$F(1, 75) = 7.40, p < .01$]. Means and standard errors for this effect can be found in Table 9.

There was also a marginally significant interaction of side x composition, [$F(1, 75) = 2.89, p = .09$]. No other main effects or interactions were significant. Simple main effects tests on the side x distribution interaction for each side showed that the effect of distribution was significant for prosecution [$F(1, 77) = 7.17, p < .01$] and defense [$F(1, 77) = 7.17, p < .01$]. Prosecution witnesses were rated as more influential to 2-2 than 1-3 juries. On the other hand, defense witnesses were rated as more influential to 1-3 juries than 2-2 juries. It should be noted however, that both 2-2 and 1-3 juries rated the defense witnesses as more influential than prosecution witnesses.

Table 9

Means and Standard Errors for Side x Distribution Interaction for Witness Ratings

Distribution	Side	Mean	Standard Error
2-2	Prosecution	44.70	1.56
	Defense	55.30	1.56
1-3	Prosecution	38.83	1.54
	Defense	61.17	1.54

With regard to the marginally significant composition x side interaction, univariate analyses for each composition indicated that the main effect of side was significant for both homogeneous [$F(1, 38) = 13.40, p < .01$] and mixed juries [$F(1, 39) = 49.86, p < .001$]. Table 10 depicts means and standard errors for this interaction.

Both homogeneous and mixed juries rated the defense witnesses as more influential, but the disparity was greater in the mixed juries than it was in the homogeneous juries.

Table 10

Means and Standard Errors for Predeliberation Side x Composition Interaction for Witness Ratings

Composition	Side	Mean	Standard Error
Homogeneous	Prosecution	43.57	1.76
	Defense	56.44	1.76
Mixed	Prosecution	39.94	1.42
	Defense	60.06	1.43

Opening Arguments

The importance of opening and closing arguments to verdict preferences was assessed before and after deliberation. Data on questions assessing the influence of opening arguments were analyzed using a 2 (distribution) x 2 (composition) x 2 (side) x 2 (time) Repeated Measures ANOVA. Means are depicted in Table 11. There was a significant main effect of side, $F(1, 75) = 5.79, p < .05$, and a marginally significant main effect of distribution, $F(1, 75) = 3.25, p = .08$. However, these effects were qualified by a significant side x distribution interaction [$F(1, 75) = 17.54, p < .001$], which was qualified by a significant three way interaction among time, side and distribution [$F(1, 75) = 4.166, p < .05$]. The three way interaction of time, distribution and composition was also significant, $F(1, 75) = 5.65, p < .05$.

Simple effects analyses on the three way interaction of time x side x distribution (Figure 1), at both levels of time indicated that the effect of side x distribution was

significant for both predeliberation [$F(1, 77) = 8.81, p < .01$], and postdeliberation measures [$F(1, 77) = 18.22, p < .001$]. At both times both predeliberation and postdeliberation, there were no differences in 2-2 juries' ratings of prosecution and defense opening statements. There were significant differences in 1-3 juries' predeliberation ratings of opening statements, such that defense opening statements were rated as significantly more influential than prosecution opening statements ($p < .001$). The same disparity ($p < .001$) between ratings of prosecution and defense opening statements was larger in the postdeliberation ratings.

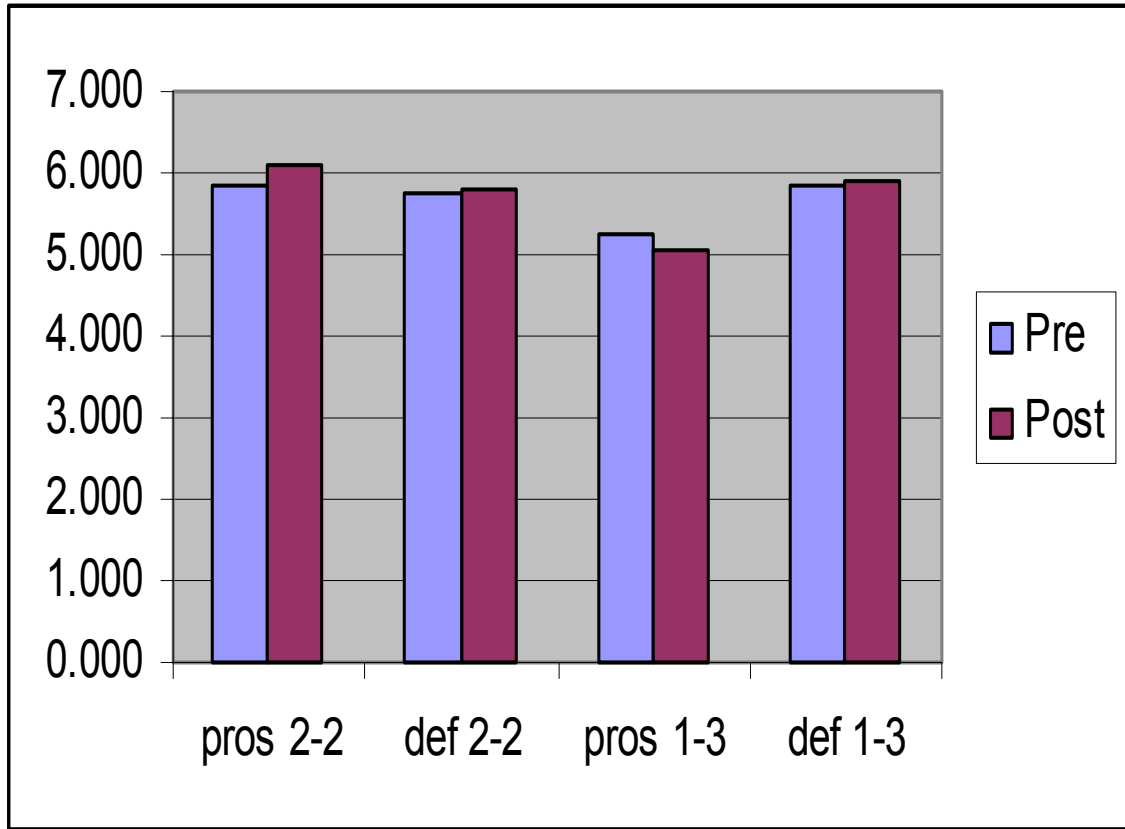


Figure 1. Time x Side x Distribution Interaction on ratings of opening statements

Table 11

Means and Standard Errors for Time x Side x Distribution Interaction on Opening Statements

Predeliberation			
Distribution	Side	Mean	Standard Error
2-2	Prosecution	5.85	.15
	Defense	5.76	.18
1-3	Prosecution	5.25	.15
	Defense	5.83	.18
Postdeliberation			
Distribution	Side	Mean	Standard Error
2-2	Prosecution	6.10	.18
	Defense	5.80	.20
1-3	Prosecution	5.04	.18
	Defense	5.91	.20

Simple effects analyses on the three way interaction of time x composition x distribution (Figure 2) for each composition indicated that the interaction of time x distribution was significant for mixed juries only, $F(1, 38) = 6.53, p < .05$. Means for this effect can be found in Table 12. There were no differences between Mixed 2-2 and 1-3 juries' predeliberation ratings of opening statements. After deliberation however, mixed 2-2 juries rated opening statements as more influential than the mixed 1-3 juries did ($p < .05$).

Table 12

Means and Standard Errors for Time x Composition x Distribution
Interaction on Opening Statements

Predeliberation			
Distribution	Composition	Mean	Standard Error
2-2	Homogeneous	5.84	.21
	Mixed	5.77	.21
1-3	Homogeneous	5.55	.21
	Mixed	5.53	.21
Postdeliberation			
Distribution	Composition	Mean	Standard Error
2-2	Homogeneous	5.66	.23
	Mixed	6.22	.23
1-3	Homogeneous	5.56	.23
	Mixed	5.39	.23

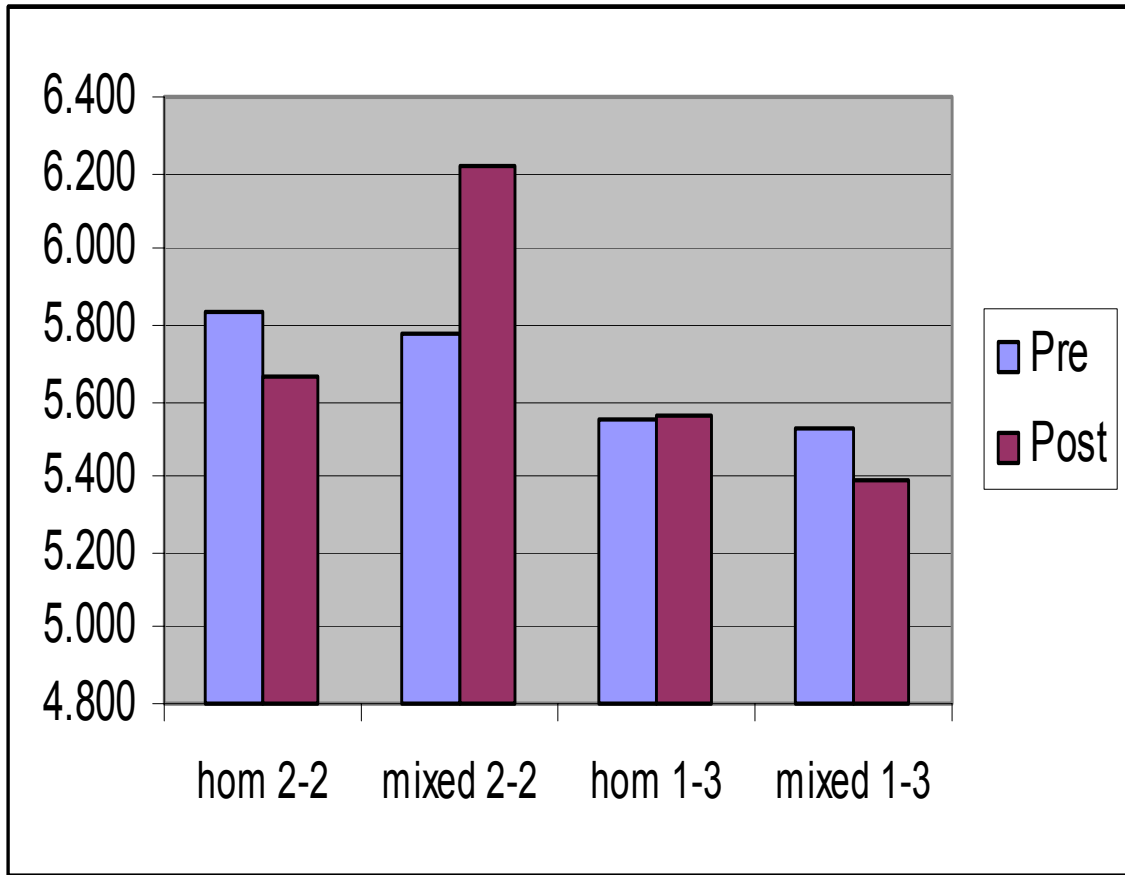


Figure 2. Time x Composition x Distribution Interaction on ratings of opening statements

Closing Arguments

A similar 2 x 2 x 2 x 2 Repeated Measures ANOVA conducted on prosecution and defense closing argument ratings both before and after deliberation, indicated a significant side x distribution interaction [$F(1, 75) = 37.60, p < .001$]. Simple effects analyses indicated that prosecution closing arguments were rated as significantly more useful to 2-2 juries ($M = 6.48$) than 1-3 juries ($M = 5.47, p < .001$). Defense closing arguments were rated as marginally more significant to 1-3 juries ($M = 5.89$) than 2-2 juries ($M = 6.34, p = .06$)

Results also revealed a significant three way interaction of time x composition x distribution [$F(1, 75) = 4.42, p < .05$], which is depicted in Figure 3. Means and standard errors are depicted in Table 13. However, this effect proved difficult to interpret as none of the follow-up two way comparisons were significant. When composition was held constant, follow up analyses indicated that the effect of time x distribution was marginally significant for homogeneous juries only, $F(1, 37) = 3.36, p = .075$. Further, results indicated that the distribution effect was marginally significant for homogeneous juries in that 2-2 juries rated closing statements as more influential than 1-3 juries did before deliberations. After deliberation however, those differences disappeared and homogeneous 2-2 juries rated closing arguments as equally as influential as the 1-3 juries did. Closer inspection reveals that there were also shifts in importance ratings for the two types of juries after deliberation such that 2-2 juries rated closing arguments as less influential after deliberation and 1-3 juries rated them as more important.

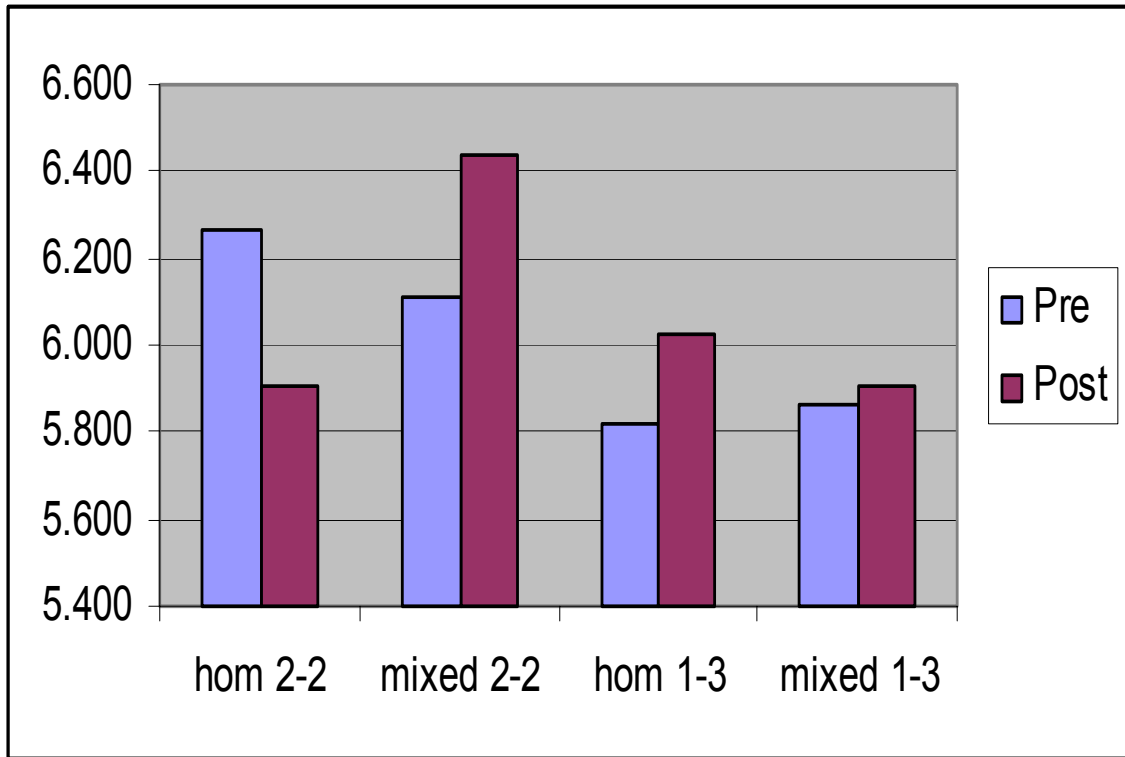


Figure 3. Time x Composition x Distribution Interaction on ratings of closing arguments

Table 13

Means and Standard Errors for Time x Composition x Distribution Interaction on Closing Argument Ratings

Predeliberation			
Distribution	Composition	Mean	Standard Error
2-2	Homogeneous	6.27	.19
	Mixed	6.11	.17
1-3	Homogeneous	5.82	.18
	Mixed	5.86	.18
Postdeliberation			
Distribution	Composition	Mean	Standard Error
2-2	Homogeneous	5.91	.22
	Mixed	6.44	.23
1-3	Homogeneous	6.03	.22
	Mixed	5.91	.23

CHAPTER IV

DISCUSSION

There were three hypotheses in the current study. The first was that biases in information processing evident at the individual level would be apparent at the group level due to information processing errors made by death qualified jurors. Second, if biases were present, deliberation was expected to enhance them in the case of homogenous juries and attenuate them in the case of mixed juries. Finally, it was predicted that there would be differences in deliberation between homogeneous and mixed juries. For homogeneous juries, conviction was hypothesized to be demonstrable by appeals to the shared representation of favoring the death penalty, so long as at least two members favored conviction (Conviction Supported Wins). On the other hand, for mixed juries, it was expected that due to the influence of the leniency bias, reasonable doubt would be the predominant shared representation and these juries would vote for acquittal in all cases where a clear 2/3 Majority was lacking for conviction (2/3 Majority, Defendant Protection Otherwise).

Individual Level Biases

The claim for individual level biases in the literature is made on the basis of poor, or at the very least selective, information processing of the part of death qualified jurors (e.g., Butler & Moran, 2002; Luginbuhl & Middendorf, 1988; Cowan et al., 1984; Thompson et al., 1984). It is this selective processing of evidence that had been found to mediate the relationship between attitudes towards the death penalty and conviction proneness (Thompson et al, 1984). Thompson et al. also predicted that death qualified jurors would convict on a lower threshold of conviction based questions assessing how

much regret they would feel if they had erroneously convicted a defendant. The fact that pro-death penalty individuals expressed less regret than excludable jurors led them to suggest that death qualified jurors would have a lower threshold of conviction.

Selective information processing biases were found in the present study, but conviction proneness was not. Further, the selective processing found was localized only in witness ratings. Participants selectively attended to the information that was consistent with their pre-existing attitudes. As expected, pro-capital punishment jurors found the prosecution witnesses to be more influential than the defense witnesses. On the other hand, those not strongly in favor of the death penalty were more influenced by defense witnesses. No differences based on attitudes, however, were found in ratings of opening or closing arguments, indicating the bias was not all encompassing.

Also, no differences were found between pro-capital punishment and opposed/ambivalent jurors in crime control orientations, contrary to the findings of Fitzgerald and Ellsworth (1984), and Cowan et al. (1984). Pro-death penalty and opposed/ambivalent individuals in the present study did not differ in the extent to which they were concerned about the crime rate, felt the legal system was fallible or located the burden of proof in criminal cases with the prosecution or defense. Nor did they differ in beliefs regarding a person's innocence until proven guilty.

Finally, the question left open by Thompson et al. (1984), about whether jurors who favored the death penalty would have a lower threshold for conviction than jurors opposed or ambivalent about the death penalty was not found in the present experiment. In the present experiment, when explicitly asked what percentage of certainty they would

need before convicting a defendant, pro-capital punishment and opposed/ambivalent jurors did not differ.

However, Cowan et al. (1984) assessed crime control vs. due process orientation in jurors before the trial videotape was even introduced, and Fitzgerald and Ellsworth (1984) assessed crime control orientations in a questionnaire administered to a large group of persons eligible for jury duty, but who had not been called to sit on a jury. In the present experiment, the questions that assessed crime control orientation and conviction threshold appeared only on postdeliberation measures. It is possible then that carryover effects of deliberation were present and participants answered these questions with regard to the case at hand rather than as an overall disposition towards conviction.

Thus, the only evidence of selective information processing, and therefore bias, in the present study was with regard to witness testimony. Even in the presence of attitude-consistent selective processing of testimony however, this difference was not evident at the dichotomous verdict level such that no reliable relationship was found between attitudes and actual pre-deliberation verdicts. Therefore, it can not be concluded from the present study that individuals favoring the death penalty vote for conviction more often than those who do not.

The Effects of Deliberation on Individual Level Biases

With regard to the second hypothesis, two different jury compositions were compared, homogeneous (representing a jury all in favor of the death penalty) and mixed (representing a range of attitudes from favor to oppose), in order to assess the effects of deliberation on attitudinal biases. If information processing biases at the individual level before deliberation were not found after deliberation, a claim for bias attenuation could

be made. Bias enhancement would be observed if no differences existed before deliberation, but emerged after deliberation, or were more extreme after deliberation.⁶

None of these scenarios were present in the current study.

Contrary to predictions, no differences emerged in this study between homogeneous and mixed juries in their information processing tendencies. At the group level of analysis, only three analyses found differences between homogeneous and mixed juries. Two of these differences were not easily interpreted (in the sense that homogeneous and mixed jurors differed in the extent to which they rated overall arguments), and one showed differences only in magnitude, but the same pattern of effects were found.

It is not surprising then that there was no relationship found between attitudes and verdicts seen at the jury level. The frequency counts of verdicts, showed that there were no differences between homogeneous and mixed juries. Essentially, the only differences that emerged at the group level in the present experiment were differences between distributions (2-2 vs. 1-3). At first glance, the lack of differences between homogeneous and mixed juries might suggest bias attenuation after deliberation. However, in order to make the claim that deliberation had an attenuating effect on pre-existing biases, it would have to be demonstrated that differences existed before deliberation that were not evident after deliberation.

At the individual level, the only significant difference that emerged between those endorsing pro-capital punishment attitudes and those that were opposed/ambivalent was in witness ratings. Pro-death penalty jurors rated the prosecution witnesses as more

⁶ Readers may ask if this is bias enhancement or bias creation. This is considered a semantic difference and it is sufficient to say that in both situations, bias is increased.

influential than defense witnesses. On the other hand, defense witnesses were rated as more influential than prosecution witnesses by those not highly in favor of the death penalty. While the witness ratings in this case were in the expected direction, it is somewhat surprising that similar differences did not emerge between pro-capital punishment and opposed/ambivalent participants with regard to opening or closing arguments, crime control orientations or conviction thresholds.

Conviction biases were not the only biases absent at the group/jury level. There was also an absence of bias towards acquittal as would be expected from the defendant protection norm (e.g., the leniency bias). Previous studies (Davis et al., 1981; Tindale & Davis, 1983) had found that the social decision scheme which best predicted jury decision making is 2/3 Majority, Defendant Protection Otherwise. In this scheme, any time there is not a clear 2/3 majority in favor of conviction, the defendant protection norm should move the jury's verdict toward acquittal. However as is evident from the verdicts in this case, evidence of the defendant protection norm was not found in either homogeneous or mixed juries.

The Effects of Bias on Group Process

The fit of the equiprobability scheme for resolving differences in 2-2 distributions further suggests that in the present experiment, there were no biases present at all at the jury level, either for or against the defendant. Even in the case of the very slight asymmetry towards conviction for all 2-2 juries, the results suggest that neither conviction nor leniency was overwhelmingly demonstrable for either type of jury. Further, the fact that the data from both homogeneous and mixed juries fit the 2/3 Majority, Equiprobability Otherwise scheme indicates that homogeneous and mixed

juries did not differ in terms of the process of moving from individual inputs to group outputs, nor in the verdicts reached.

Therefore, while this study attempted to investigate the effects of deliberation on attitudinal biases, contrary to predictions, deliberation had no effect on individual verdict preferences. The driving force behind differences in this study seemed to be solely distributional in that group verdict preferences were similar to individual predeliberation preferences. Gigone and Hastie (1996) found that members' pre-discussion opinions were significantly related to the group's judgments over and above the amount of shared information. This appeared to be the case in the present study as well. Shared representations are defined as any task/situation relevant concept or norm, perspective or cognitive process that is shared by most or all of the group members (Tindale, Smith, Thomas, Filkins & Sheffey, 1996). The impact of a shared representation depended on the degree to which it was shared among group members, and to the degree to which other conflicting shared representations may be present (Tindale et al., 1996). In this study, the only shared opinions that mattered were verdict preferences and attitudes about the death penalty had no effect.

The influence of the shared representation of verdict preference in this study can be found in the fact that models that have been predictive in other studies of jury decision making (e.g., 2/3 Majority, Defendant Protection Otherwise) were rejected in this study.

The significant differences that existed in the current study almost all involved the effect of distribution. More specifically, the 2-2 juries and 1-3 juries differed in their ratings of prosecution and defense evidence such that 2-2 juries rated the prosecution evidence, opening and closing arguments as more influential than the same evidence

presented by the defense. Of all of these findings however, only one is not effectively accounted for by distributional differences among juries, the finding that homogeneous and mixed juries differed in their ratings of prosecution and defense witnesses. This effect however was not in the predicted direction of increased reliance on prosecution witnesses by homogeneous juries.

Death qualified juries were expected to be more conviction prone because of the increased processing and weight placed on the prosecution's evidence by pro-death penalty jurors (Butler & Moran, 2002; Lugginbuhl & Middendorf, 1998). At the individual level in this study, pro-death penalty jurors rated the prosecution's witnesses as more influential than the defense witnesses. Contrary to what was expected at the group level however, results indicated that all juries, regardless of composition or distribution, rated the defense witnesses as more influential than the prosecution witnesses. This pattern of ratings was unexpected not only because of the attitudinal differences among juries, but also because in the 2-2 juries, half favored conviction. It is surprising that juries who favored conviction more to begin with would rate the defense witnesses as more influential. The higher importance ascribed to defense witnesses by 2-2 juries at the group level was also surprising in light of the fact that all other ratings (e.g., evidence, opening and closing arguments) favored the prosecution.

It is possible that this pattern of effects had to do with the fact that the defendant herself was a witness, and her testimony regarding the murder would undoubtedly be influential to all jurors. A potential problem however lies in the manner in which the question was asked. Jurors were asked simply to rate how influential the various pieces of evidence were to their decision. Stated this way, the direction of the influence was

unknown. It is conceivable that two jurors could rate the defendant's testimony as highly influential, but interpret that influence in different ways, one in determining she was guilty, and another in determining she was not.

Distributional differences may also be responsible for the group polarization effect observed in 1-3 juries. Group verdict preferences were more in the direction of acquittal than individual preferences before or after deliberation. Group polarization is defined as a shift towards extremity in the direction of initial preferences after deliberation (Myers and Kaplan, 1976). Given that in the 1-3 juries was there a clear preference for one verdict going into deliberations, one would expect that if polarization were to occur, it would be in this group and results verified a shift in the direction of acquittal in 1-3 juries on both the group and postdeliberation measures.

In essence then, the question with regard to the effects of deliberation on individual level biases is left unanswered because few differences existed between pro-capital punishment jurors and opposed/ambivalent jurors before deliberation. In previous studies of bias attenuation at the group level (Kaplan & Miller, 1978; Kerr et al., 1999; Kerwin & Shaffer, 1994), effects were found to be directional in that biases were subject to attenuation by the group, after which the facts of the case appeared to determine the group verdict. In the case of the present study, if biases were minimal at the individual level, they may not have been apparent enough at the group level to attenuate or exacerbate, and the jurors had nothing else but their individual preferences to rely on in the group.

On the other hand, there were findings in the present study that were consistent with previous literature with regard to biased information processing on the part of death

qualified jurors (e.g., Butler & Moran, 2002; Lugginbuhl & Middendorf, 1998). Because of this bias, it is conceivable that these jurors would be more conviction prone, and that a group of such jurors would be especially conviction prone in the instance where the shared representation of conviction is obvious to the group. However in the case of the present experiment, individual level processing biases were present and yet there was no difference at the group level between homogeneous and mixed juries. It is possible then that the Court's contention in *Witherspoon* that that an individual could put aside attitudinal biases and decide on the facts of the case may have merit.

The findings are also interesting in light of the Court's claim in *McCree* that as long as the jury was composed of individual impartial jurors (defined as people who said they could consider all of the evidence), then the jury would also be considered impartial. In this case, the individual jurors were biased and yet this bias was not evident at the group level.

However, the fact that homogeneous and mixed juries were similar before, during and after deliberation prevents a definitive answer to the question of whether death qualified juries are more conviction prone. It appears then that the answer remains, "it depends."

The present study was able to shed light on some important characteristics of the trial used to study jury decision making. Overall, findings in previous studies examining biases at the group level suggested that the effects of biases were limited such that they may only influence group verdicts when the evidence provides little insight as to the correct verdict (Kaplan & Miller, 1978; Kerr et al., 1999; Kerwin & Shaffer, 1994). Therefore, it is also possible that the lack of predicted results in the current study can be

explained in light of the type of case chosen on which jurors had to decide. Kerr et al. (1999) found case severity to be a moderator having the potential to make biases obsolete. Kerr et al. noted that at a conviction rate of around 50%, jury deliberation was expected to maximally accentuate juror biases. Cases extreme in their implications of guilt *or* innocence would not be subjected to bias since the evidence would constrain the verdict. However it is possible, and may have been true for the case used in the current study, that a case can be extreme in its implications of guilt *and* innocence.

The 2/3 Majority, Equiprobability scheme, the only scheme that could not be rejected in this study, provides insight as to what was demonstrable in trial. The fact that the verdicts were split essentially down the middle when jurors entered into deliberation in the 2-2 juries, and the group level verdicts showed similar distributional outcomes indicates that the case may not have been moderate as much as demonstrable in both conviction and acquittal. Thus, while a moderate case may be necessary for the bias to be evident, it also ensures that verdicts will be split accordingly and perhaps this makes it even harder for attitudinal differences to overcome distributional ones. It is very difficult to find a case where the death penalty is an option, but where the evidence in the case only moderately supports a guilty verdict. In fact, the case selected for use in the present study was not originally a capital case, but the death penalty was given as an option in sentencing. This may help to explain the low number of death sentences given (only 3 juries sentenced her to death).

One of the principal goals of this study was to point out that previous studies that demonstrated what jurors would do might not be indicative of what juries would do and emphasize the need for group level examinations of the effects of death qualification.

While the results at first glance seem to contradict this goal and lend credence to the continued use of individual level studies, it is important to note the lack of differences at even the individual level. Davis et al. (1978) state that the biasing process resides with the interpretation of evidence, differential weight being placed on exonerating and incriminating testimony. With one exception, this was not the case even before deliberations began. Further, when jurors were assigned to juries, and their pre-deliberation responses aggregated, these effects disappeared suggesting that biases were simply not evident in this sample of jurors. Thus, the question regarding what happens to individual level juror biases brought about by pro-capital punishment attitudes after deliberations still remains unanswered.

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APPENDIX A

EXTENDED LITERATURE REVIEW

The Effects of Group Deliberation on Capital Jury Verdicts: An Examination of Group Process

The fact that jurors are far from the blank slates they are conceptualized as being is well documented in the literature on jury decision making. All individuals, jurors or not, hold attitudes and beliefs with regard to particular issues that have the potential to influence judgments. Decision makers often rely on existing attitudes when they are faced with more information than they are able to deliberatively process, and studies have found that pre-existing attitudes may keep jurors from being truly impartial, influencing their information processing accordingly (cf Meissner, Brigham and Pfeifer, 2003). Thus, attitudes may serve as the schema through which new incoming information is viewed, influencing all aspects of the decision making process from encoding and processing of evidence to retrieval of schema consistent information. It is therefore important to understand the role that pre-existing attitudes (those formed before and not during the trial), may have on jury decision making. While jurors often come to the legal arena holding a number of potentially influential attitudes, one that is especially germane to jury decision making is the attitude towards capital punishment.

Selection of Capital Jurors

Death penalty attitudes have received a lot of attention in the social psychological literature perhaps due to the importance that the court assigns these attitudes in the process of voir dire. The goal of death qualification and voir dire, which occur in capital trials, is to strike a balance between jurors' attitudes toward the death penalty and the defendant's right to an impartial jury (O'Neil, Patry & Penrod, 2004). Thus, the job of a

capital juror requires one to concomitantly serve as the conscience of the community, while at the same time following the law by not reaching a verdict based solely on one's attitudes. As such, the court typically excludes from service jurors whose attitudes are so strong that it would make it unlikely that they could follow the law and consider the full range of punishments, including the death penalty. Thus, death qualified juries are comprised exclusively of jurors who favor (or at least tolerate) the use of the death penalty.

However, the exclusion of jurors who are opposed to the death penalty is notable in that this is the sole legal rule that permits the categorical exclusion of a whole group of otherwise eligible citizens from jury service on the basis of their beliefs (Cowan, Thompson & Ellsworth, 1984). Thus, two distinct types of juries exist in the criminal justice system, mixed (representing the entire range of attitudes in the community), and death qualified (Cowan, et al., 1984). Further, it is important to note that it is only for one portion of the trial for which their attitudes are problematic. Excluded jurors are qualified to decide guilt and innocence and would not be excluded from non-capital juries; it is only the penalty phase for which they are determined to be unsuitable (Thompson, 1989). However, because in most states, the same capital jury that determines guilt later makes the determination of sentence, biases against capital punishment potentially could affect all decisions made about the defendant, and it is for this reason they are completely excluded from jury service. In other words, those who feel that they could not vote to execute anyone are not allowed to participate in decisions about the appropriate penalty, nor are they allowed to participate in decisions about the guilt or innocence of the person on trial (Fitzgerald & Ellsworth, 1984). Historically and

in more recent years, the Supreme Court has struggled with how to fairly and efficiently select jurors best suited for capital cases, attempting to find the proper balance between the State's interests and the defendant's rights.

Legal Precedent Relevant to Attitudes Towards Capital Punishment

In Illinois, before the influential case of *Witherspoon v. Illinois*, 391 U.S. 510 (1968), jurors were excluded from capital jury service if they held anti-death penalty attitudes. Jurors expressing any doubt or objection to the death penalty at all were routinely excluded for cause in capital cases. At Witherspoon's original trial, the prosecution excluded almost half of the prospective jurors because they indicated qualms about the death penalty, without seeking to determine whether these concerns would compel them to vote against capital punishment (*Witherspoon v. Illinois*). Witherspoon appealed his case to the Supreme Court stating that the practice of excluding all death scrupled jurors all but guaranteed a jury that would be biased in favor of conviction and be unperturbed by the prospect of sending a man to his death. Furthermore, he contended such jury would too readily ignore the presumption of his innocence and be more likely to return a verdict of guilt. For these reasons, Witherspoon argued that excluding jurors on the basis of anti-capital punishment attitudes deprived him of his Sixth and Fourteenth Amendment rights to due process because the jury began the trial already partial to the case.

In examining the process of death qualification, the Court recognized the importance of seating a jury that could consider all the remedies available, while at the same time, finding a group that could reasonably serve as the conscience of the community. Because death qualified jurors are needed in the sentencing phase, the Court

in *Witherspoon* focused on the sentencing phase as the potential location of bias stemming from anti-capital punishment attitudes. Ultimately, the Court sided with *Witherspoon*, stating that the imposition of the death penalty by a “hanging jury” would be unconstitutional, and that removing all jurors who express at least a concern with the death penalty, “stacked the deck” against the defendant (*Witherspoon v. Illinois*). Thus, the Court vacated *Witherspoon*’s death sentence, but maintained the guilty verdict as found by the original jury.

The Court was hesitant however, to make a determination as to whether death qualified juries would be similarly biased in the guilt phase and thus more conviction prone. Despite the fact that *Witherspoon* provided evidence from several published and unpublished scientific studies regarding the effects of death penalty attitudes (e.g. Wilson, 1964; Goldberg, later published in 1970; Kalven & Zeisel, 1966), the Court ruled that the empirical evidence was too “tentative and fragmentary” to establish that jurors not opposed to the death penalty tended to favor the prosecution in the determination of guilt (*Witherspoon v. Illinois*). The Court left the question of whether or not death qualified juries were more conviction prone for “some future case” to determine.

The reasoning of the Court in *Witherspoon* hinged on the representativeness of the jury, and whether or not exclusion of death scrupled jurors resulted in jury that would not be “reflective of the evolving standards of decency that mark the progress of a maturing society?” Citing statistics indicating that less than half of the people in the nation at the time supported the death penalty, the Court stated that juries that excluded all death scrupled jurors could not be representative of the larger society. Without representativeness on the jury of those who are in opposition to the death penalty, the

resulting jury is not neutral and instead is likely to be uncommonly willing to condemn a man to die (*Witherspoon v. Illinois*). Furthermore, the Court was troubled by the State's implicit belief that a death scrupled juror could never vote for the death penalty, instead believing in the possibility that an individual could put aside attitudinal biases and decide on the facts of the case. "Obviously many jurors could, notwithstanding their conscientious scruples against capital punishment, return a verdict of death and make their scruples subservient to their duty as jurors" (*Witherspoon v. Illinois*). Despite such faith however, the Court in *Witherspoon* created a new standard for excluding jurors from capital cases such that individuals who made it unmistakably clear that they would refuse to vote for the death penalty in any case, regardless of the evidence, could be excluded from jury service.

Later, in the case of *Wainwright v. Witt*, 469 U.S. 412 (1985), the Court clarified its position on *Witherspoon*, revisited the question of excusing jurors due to anti-capital punishment sentiments, and relaxed the standard for exclusion. In its clarification, the Court stated that *Witherspoon* was not to be used as a ground for challenging a juror, but rather was meant to be a limitation on the State's power to exclude (*Wainwright v. Witt*). The Court adopted a new standard for exclusion which had been previously used in another case before them. In *Adams v. Texas*, 448 U.S. 38 (1980), it was determined that the proper standard for excluding a juror for cause because of attitudes towards capital punishment was whether the juror's views would "prevent or substantially impair the performance of his duties as a juror in accordance with his instructions and his oath" (*Adams v. Texas*, p 45).

The Court was again seeking to establish a standard wherein it was only those who were unable to put aside their views when judging the merits of the case that could be excluded. But the new *Witt* standard resulted in some substantial changes in capital jury selection. For example, *Witt* broadened the focus of juror bias, moving it from solely in the sentencing phase as was contended in *Witherspoon*, to potentially include all aspects of a trial wherein the juror may act in a manner inconsistent with the oath of impartiality. The Court also equated bias stemming from attitudes towards capital punishment with all other types of biases, and contended that it was to be treated as no different from excluding jurors for “innumerable other reasons which result in bias” (*Wainwright v. Witt*). Finally, by removing the requirements of absolute certainty which had been established in *Witherspoon*, the *Witt* standard substantially increased the number of excludable jurors because it excludes those who feel that their attitude might inhibit their duty as a juror, a less clear cut standard than *Witherspoon*. In this way, *Witt* seemed to be more in line with the exclusion practices in effect before *Witherspoon v. Illinois*. In his dissent, Justice Brennan disagreed with the Court’s relaxation of the “exceptionally strong showing” standard that had been created by *Witherspoon*, stating “basic justice demands that juries with the power to decide whether a capital defendant lives or dies not be poisoned against the defendant” (*Wainwright v. Witt*, p 439).

In *Lockhart v. McCree*, 476 U.S. 162 (1986), the Court finally explicitly addressed the question left open by its decision in *Witherspoon v. Illinois*, bringing to the forefront the issue of guilt proneness of capital jurors in the culpability phase. In McCree’s original trial, the *Witherspoon* standard was in use, and jurors who stated that they could not under any circumstances vote for the imposition of the death penalty were

removed (*Lockhart v. McCree*). McCree was found guilty, but was not sentenced to death. McCree appealed his case to the Supreme Court stating that through the process of death qualification, the State systematically skewed the jury toward conviction, thus depriving him of his constitutional right to an impartial jury.

Again, the Supreme Court reduced the issue to the question of representativeness of the jury and examined whether or not excludable jurors constituted an identifiable group under the “fair cross section of the community” requirement of the Constitution. However, the Court held that groups defined solely in terms of shared attitudes, even those that would prevent or substantially impair members of the group from performing one of their duties as jurors, are not distinctive groups for fair cross section purposes (*Lockhart v. McCree*).

Also notable in *McCree* was that the defense asked the Court to focus on the *jury* rather than on individual *jurors*. While this issue had been an undercurrent in prior cases such as *Witherspoon* and *Witt*, this was the first time that the defense explicitly sought to address the issue. The Court in *McCree* stated that as long as the jury was composed of individual impartial jurors (defined as people who said they could consider all of the evidence), then the jury would also be considered impartial. Contending that all individual jurors are to some extent predisposed towards one result or another, the Court defined an impartial jury as nothing more than jurors who will conscientiously apply the law and find the facts (*Lockhart v. McCree*). In effect this meant that as long as each individual claimed that he or she could give any penalty, the jury would be considered impartial.

Finally, the defense asked the Court to consider available social science research, provided by McCree, in support of his contention that death qualified jurors were more conviction prone (citing “various polls conducted between 1953 and 1981;” Zeisel, 1968; Wilson, unpublished manuscript, 1964; Goldberg, 1970; Jurow, 1971; Cowan, Thompson & Ellsworth, 1984; Bronson, 1970; Bronson, 1980; Fitzgerald & Ellsworth, 1984; Thompson, Cowan, Ellsworth, & Harrington, 1984; Ellsworth, Bukaty, Cowan, & Thompson, 1984; Young, unpublished study, 1981; and Haney, 1984). However, the Court again dismissed the findings, citing what they believed to be several “serious flaws” in the evidence provided. These flaws included a lack of realism (e.g. being sworn under oath to apply the law to the facts), and the lack of deliberation on the part of participants in the studies. The Court stated that lacking such manipulations, the evidence did not allow for a prediction of what extent the presence of an excludable juror would have on the outcome of the guilt determination of a group of jurors (*Lockhart v. McCree*).

In sum, it is clear from the caselaw dealing with the issue of capital punishment attitudes and jury verdicts, that the courts have different and sometimes conflicting views on the issue. It seems that even though the Court is willing to concede that attitudes regarding the death penalty might play a role in conviction tendencies, conflicting answers are often provided as to why this should not be an issue. Furthermore, absent evidence regarding the effects of biases on juries instead of jurors, it is unclear whether this bias would be evident at the group level. If caselaw in this area provides little direction when it comes to answering the question of whether attitudes toward capital punishment influence jury decision making, a shift of focus to the social psychological literature may prove enlightening.

Research Regarding Attitudinally Biased Processing

In social psychology, the contention that individuals may be biased in their decision making is not new. A number of studies have shown that individuals may be biased in their information processing (Lord, Ross & Lepper, 1979; Miller, McHoskey, Bane & Dowd, 1993; Pomerantz, Chaiken & Tordesillas, 1995). While an underlying assumption is that biased processing results from hasty or pressured decision making, studies have found that even when individuals process available information carefully and deliberately, biases have been shown to ‘leak’ into information processing and influence resulting decisions.

For example, in a notable early study by Lord et al. (1979), it was found that participants holding strong attitudes often interpreted evidence in a biased fashion. In their study, individuals who held favorable attitudes towards the use of capital punishment tended to interpret and judge new, inconclusive information as favorable to their preexisting attitude. The same was found for those holding preexisting attitudes that were not favorable to capital punishment. Whereas both interpreted the new evidence as supportive of pre-existing beliefs, it is important to note that they were using the same evidence. Also remarkable was that participants in this study endorsed more extreme beliefs in the direction of their initial beliefs at the conclusion of the study. That is to say, the inconclusive and mixed results provided to subjects in this study had the effect of polarizing participants’ preexisting beliefs. The authors attributed their findings to a process of ‘biased assimilation,’ wherein each group readily accepted information that supported their cause, and discredited information that challenged it.

However, this study was not one of juror decision making. Rather the goal of the study was to examine information processing as it related to preexisting beliefs, in this case, with regard to capital punishment. On the other hand, despite the fact that a later study found mixed results for the polarization effects found by Lord et al. (Miller et al., 1993), the phenomena of biased assimilation appears robust in that a number of studies employing different methods and measures have found evidence of biased processing (Carlson & Russo, 2001; Miller et al., 1993; Pomerantz et al., 1995;). In other words, even in the absence of findings demonstrating polarization, results of a number of studies show that individuals may be biased in their selection and processing of information.

These studies on biased assimilation indicate that at the cognitive level, biases in attitudes result in biases in processing. Kunda (2000) noted that biased processing may still result from careful and deliberative processing when individuals lack an alternative strategy from which to process information, or are unaware that their reasoning procedures are faulty. Therefore, if individuals possess flawed information, greater processing will exacerbate rather than attenuate those biases, even in the presence of accuracy goals. Assuming that individuals are often unaware that their processing is being biased by their goals, unbiased information processing becomes even more difficult. Thus, biases result when the cognitions themselves are faulty, or when individuals lack a strategy to correct for cognitive errors.

Further, the biased assimilation studies may also be understood from a motivational perspective. When individuals are motivated to reach a particular conclusion (for example, to reach a decision in line with their preexisting attitudes) increased processing is often directed towards justification of those prior beliefs. This

may especially be true when there is an increased cost for being wrong. According to Kunda (2000), people expecting to incur heavier costs if their desired beliefs turn out to be wrong may expend greater effort to justify desired beliefs. Effortful processing may then take the form of selective memory searches, or creatively combining accessed knowledge to construct new beliefs that could logically support the desired conclusion (Kunda, 2000). Inasmuch as people have the choice of which information to process and which rules to apply, even in-depth information processing may thus be influenced by biases. And it can be expected that attitudes and beliefs will guide the reasoning process when external or contextual cues make them salient.

If motivation is a source of biased processing, then it is possible that redirecting motivation is the solution to overcoming those biases. Cohen, Aronson, and Steele (2000) looked to the persuasion literature and implicated ego-defensive motivations as a likely source of processing errors. Contending that beliefs are a valued source of identity, Cohen and his colleagues posited that individuals engage in biased assimilation in order to protect the self. In earlier persuasion studies by Cohen, self-affirmation had been found to be effective in decreasing defensive processing. Therefore, Cohen, et al. sought to determine whether self-affirmation would have similar effects on biased assimilation when processing messages regarding capital punishment. Using a paradigm similar to Lord et al. (1979), Cohen et al. manipulated affirmation in areas unrelated to attitudes, and then asked participants to evaluate messages that ran counter to their attitudes towards capital punishment. It was found that participants demonstrated less evidence of biased assimilation when they were affirmed, indicating that assimilation bias is mediated in part by identity-maintenance motivations (Cohen et al., 2000).

As Ellsworth (1993) contends, and as the evidence above suggests, attitudes operate concomitantly to influence several aspects of a complex decision process to produce a bias towards one outcome or another. In all likelihood, biased assimilation is not problematic for our day to day functioning; indeed the fact that we rely on our existing attitudes to direct our information search may even be functional in most cases. However, when it comes to attitudes towards capital punishment and evaluation of evidence on the part of a juror, biased assimilation may be a problem, serving as a real threat to the impartial juror construct on which our legal system is based. Studies of jury decision making show that even in the role of jurors, individuals tend to process evidence in a biased fashion.

Effects of Capital Punishment Attitudes on Judgments

In *Woodson v. North Carolina*, 428 U.S. 280 (1976), the Supreme Court ruled against an automatic death sentence for defendants convicted of capital murder, contending that fairness mandated consideration of all of the particular aggravating and mitigating factors of the case before deciding whether the death penalty was appropriate (Fitzgerald & Ellsworth, 1984). Yet studies of juror decision making have shown that jurors who hold extreme death penalty attitudes attend more to corresponding facts given in the evidence (aggravating or mitigating factors), and weigh this evidence more significantly, consistent with their pre-existing attitudes (e.g. Butler & Moran, 2002; Cowan et al., 1984; Luginbuhl & Middendorf, 1988).

More specifically, Butler and Moran (2002) found that individual mock jurors who held pro-capital punishment attitudes selectively attended more to aggravating

factors in making their sentencing recommendations than those who were not in favor of the death penalty (for similar findings, see Luginbuhl & Middendorf, 1988). Those holding anti-death penalty attitudes were found instead to attend more to mitigating factors. Furthermore, Luginbuhl and Middendorf found that opponents of the death penalty not only attended to more to the mitigating factors, but were also actually less supportive of the aggravating factors as well. As such, the testimony regarding aggravating and mitigating circumstances is expected to be processed by each juror in relation to his or her individual schema about the crime (Luginbuhl & Middendorf, 1988). In a similar vein, Cowan et al. (1984) found that memory for attitude-consistent evidence was enhanced among those on exclusively death qualified juries, whereas those on mixed juries remembered the overall evidence more accurately and corrected more memory errors when they were made. It seems then, that the safeguards intended in *Woodson* may not have their intended effects given that jurors do not attend to all the factors before them.

In terms of differential weighting of evidence, Cowan et al. (1984) demonstrated that death qualified jurors (jurors who have endorsed pro-capital punishment attitudes) were more impressed with prosecution witnesses and found them more believable than jurors who were opposed to the death penalty. And after a brief period of deliberation, they found that individuals on death qualified juries were more likely vote for conviction than individuals who had deliberated on juries composed of both pro- and anti-capital punishment members. This finding appears to be robust. According to Ellsworth (1993), during the past 30 years, social scientists have conducted a number of studies, using a number of different methodologies to study the attitude-verdict relationship and every

study found that jurors who did not oppose the death penalty were more likely to convict than jurors who oppose the death penalty.

In addition to differences in the manner in which advocates and opponents process information, studies have found that attitudes towards the death penalty exist within a constellation of other social/political attitudes that are distinct among the two groups. For example, those in favor of the death penalty are more likely to be white and male (Fitzgerald & Ellsworth 1984); prejudiced towards African-Americans, less educated, have higher incomes, endorse a conservative ideology, and are less likely to be Catholic (Soss, Langbein, & Metelko, 2003).

Fitzgerald and Ellsworth (1984), examining the beliefs and orientations held by those endorsing or opposing capital punishment, found that individuals who were against the death penalty had more of a due process orientation and those in favor held crime control orientations. The due process orientation entailed more concern about the rights of the individual, belief in the fallibility of the criminal justice system, and the preeminent belief that the burden rests with the state to prove guilt beyond a reasonable doubt. Lacking proof beyond this standard, the defendant is presumed innocent. On the other hand, individuals who hold crime control values believe that the most important function of the criminal justice system is to repress crime and to deal swiftly and efficiently with criminal suspects. Individuals endorsing this view are more likely to believe, for example, that if the defendant is being tried in court, he/she is probably guilty.

Thus, death qualified juries are composed of a number of individuals who believe that the defendant is more likely to be guilty by virtue of his/her presence in the

courtroom and less likely to believe that the state must prove the defendant guilty. Further, Fitzgerald and Ellsworth found that excludable jurors were more likely than death-qualified jurors to agree that it is better for society to let some guilty defendants go than to risk convicting an innocent person. “If we assume that people who hold opinions strongly are likely to be especially vigorous in asserting and defending their options, then death qualification eliminates from the jury room many of the strongest advocates of mercy and due process values” (Fitzgerald & Ellsworth, 1984, p 44).

Similar to Lord et al. (1979), Thompson, Cowan, Ellsworth, and Harrington (1984) conducted a study to determine whether capital punishment attitudes affected the manner in which jurors interpreted ambiguous evidence. They predicted and found that jurors who favored the death penalty resolved ambiguous testimony in a manner consistent with the prosecution theory or ‘script’ of the case, while jurors who opposed the death penalty resolved conflicts and uncertainties in a manner more amenable to the defense.

Further, Thompson et. al (1984) sought to determine whether death qualified jurors would have a lower threshold for conviction, such that they would be willing to convict on a lesser certainty of guilt than those opposed to the death penalty. They predicted different thresholds for conviction on the basis of Fitzgerald and Ellsworth’s (1984) finding that excludable jurors were more likely than death-qualified jurors to agree that it is better for society to let some guilty defendants go than to risk convicting an innocent person. Further, Thompson et al. noted that the standard for capital cases, beyond a reasonable doubt, is ill defined and mostly is left up to the individual jurors’ own

interpretation. Results of this study indicated that jurors who hold pro-capital punishment attitudes indeed interpreted the reasonable doubt standard differently than those who would be excluded, and that this difference in interpretation led to more defendants being convicted by death qualified jurors.

Finally, Kaplan and Miller (1978, Experiments 1 and 2) examined the effects of enduring or stable trait biases in jurors. Kaplan and Miller defined bias as a tendency to judge a defendant or issue on a basis apart from the qualities of the defendant, the case or the issue, and in their experiments distinguished between general biases (e.g. conviction or acquittal proneness) or specific biases (e.g. racial prejudice). Simulated jurors were identified as having either lenient or harsh attitudes toward punishment of criminals (similar in nature to the orientations studied by Fitzgerald & Ellsworth, 1984), and were asked to judge guilt and recommend punishment for defendants in hypothetical traffic felony cases (Kaplan & Miller, 1978). In Study 1, case summaries included evidence that was either incriminating or exonerating, and subjects were asked to judge all six cases. In Study 2, subjects were asked to judge two cases, each having a mix of incriminating and exonerating evidence, and the manipulation involved telling half of the participants that some of the evidence was unreliable (without identifying which evidence was questionable in its accuracy). For both studies, participants were informed that the main goal of the study was to see how close their verdicts were to the actual verdicts reached in the case.

Results of Study 1 indicated that that subjects' a priori bias toward criminals affected their judgments of defendants, such that harsh subjects assigned greater guilt ratings than did lenient subjects, independent of the evidence given (Kaplan & Miller,

1978). This harshness was especially strong when information was characterized as unreliable. However, when information was labeled as reliable, lenient subjects shifted towards guilt and in fact were not statistically different from the harsh subjects' ratings in the reliable-incriminating condition. Results of Study 2 indicated that participants with harsh attitudes towards criminals gave higher guilt ratings when the evidence was ambiguously unreliable, and again, lenient subjects became more stringent when the evidence was reported as reliable. Results from the punishment data for both experiments followed the same pattern. Overall, and similar to the results of Lord et al. (1979), Kaplan and Miller found that when evidence was questionable, participants would discount information inconsistent with their bias. Further, when evidence was reliable, it was the lenient individuals who were able to overcome the effects of their biases. Also of note was the finding that the source of bias was localized in the initial impressions (either harsh or lenient) towards criminals, seeming to indicate that attitudes towards capital punishment may show similar results. Kaplan and Miller concluded with the contention that prior attitudes are likely to affect both preexisting values, and the importance placed on congruent and discrepant information.

Thus, there seems to be ample evidence for the contention that death qualified jurors will be more likely to convict in capital cases. This is due not only to pre-existing attitudes themselves, but also to general orientations which affect their interpretations and weighting of the evidence at trial. But jurors do not make determinations alone (a capital jury consists of no less than 12 members). Thus, before any conclusions can be drawn about conviction proneness of a *jury*, an examination of this group's processing is necessary. It is

possible that the previous literature discussed above regarding propensities at the individual juror level will not be informative with regard to what happens at the group level.

Jurors vs. Juries

According to Cowan et al. (1984), the wisdom of the jury is collective, emerging when a group of ordinary citizens with different backgrounds deliberate together to reach a decision that represents the common sense of the community. And attitudes, according to Tindale and Davis (1983), are largely unexplored as predictors of jury verdicts, but need examination not only in the relationship between some opinion and individual verdict preferences, but also any association between the weight of individual opinion and the final group verdict. Unfortunately however, the latter question has yet to be addressed in the social science literature. The studies reported above, along with others examined by the Court in *Witherspoon* and *McCree* citing evidence of biased information processing, are studies that use individuals as the unit of analysis. Even studies that have included jury deliberations (e.g., Cowan et al., 1984) did not assess group judgments, instead using individual juror preferences to make their determinations of biased processing.

Implicit in individual studies of juror decision making, and as explicitly stated in *McCree*, is that the jury as a group will be similar to the aggregate of the individual jurors' propensities and preferences. In fact, the Court explicitly stated that an impartial jury was one that was composed of individual jurors who were capable of impartiality. But the impartiality of a jury depends on its *aggregate* propensity to favor the prosecution or

defense, as well as the impartiality of individual jury members (Thompson, 1989), and studies have yet to demonstrate that *juries* as opposed to *jurors* would be biased against the defendant after death qualification procedures (Filkins, Smith & Tindale, 1998). To the extent that death qualified jurors are more conviction-prone, as a group, one would expect death qualified juries to be more conviction prone than non-death qualified juries (Thompson, 1989). The Supreme Court (as implied in *McCree*) seems to believe in the possibility that group deliberations may overcome the effects of individual juror biases, but this is an empirical question that awaits scientific examination.

Deliberation as a Moderator of Bias

Studies of jury decision making unrelated to attitudes indicate that the Court's assumptions may have merit by demonstrating that it is sometimes the case that deliberating juries are less biased than individual jurors (Kaplan & Miller, 1978; Kerr, Niedermeier, & Kaplan, 1999). However, other studies of deliberating juries have found that biases are exacerbated at the group level (Bray & Noble, 1978).

Mixed results such as these suggest a need for group-level examinations of death qualification, and indicate that studies that use individual juror preferences to make assumptions about what juries would do may not be reliable. Thus, the first question involves the conditions under which individual level bias leads to biased group decisions, and the second is what effects jury deliberations will have (overcome biases or enhance them). According to Kerr et al. (1999), when examining the question of whether juries are more biased than jurors, the answer is, "it depends." Given that extant literature supports both possibilities, a brief review is offered.

A study done by Kerwin and Shaffer (1994) provided evidence of the power of deliberation in general and is suggestive as to the possible effects of jury deliberations on attitudinal biases. In this study it was found that even though individual jurors showed propensities toward certain decision making flaws, when placed in a group, those flaws were attenuated. The role of instructions given by a judge to ignore inadmissible testimony was examined and results indicated that while individual jurors had difficulty ignoring the effects of preexisting biases on their own decisions, the process of group deliberation had the effect of overcoming these biases. The findings of the study indicated that, at least with regard to inadmissible testimony, deliberating juries were able to avoid extralegal biases whereas individual participants deliberating alone were unable to do the same. Furthermore, verdict recommendations showed evidence of decreased bias even though individual beliefs as to the defendant's guilt remained unchanged. It still remains unclear whether the debiasing effects of deliberation that were found in this study would generalize to a situation where jurors are influenced by pre-existing death penalty attitudes. However, inasmuch as verdict preferences are indicative of one's attitude towards the defendant, this study provides inferential evidence that although the individual juror's attitudes toward the defendant with regard to guilt remained unchanged, the group's decision did not show evidence of those attitudes.

Another study that found evidence of bias attenuation was done by Kaplan and Miller (1978, Experiment 3), who showed that after deliberation, jurors were generally less influenced by extralegal, biasing information. For this experiment, mock jurors who had seen a reenacted attempted manslaughter trial deliberated regarding the degree of guilt (scored continuously) of the defendant. Participants were told that the goal of the

study was to compare their verdicts to the actual verdicts obtained in the case. The bias examined for the purposes of this study stemmed from mood of the jurors and was created by an annoying attorney (either prosecution or defense). Participants were told that the case would last no longer than 15 minutes, but in the annoying attorney conditions, attorneys prolonged the case so that it lasted 50 minutes. Finally, case materials were designed to reflect either a high degree of guilt, or a moderately strong appearance of innocence (Kaplan & Miller, 1978). Jurors were given 10 minutes to deliberate to reach a verdict in the case, but again, no group consensus was required or recorded.

Results of this study indicated that participants were harshest on the defendant when his attorney was the cause of the annoyance, and most lenient when it was the prosecuting attorney who was at fault. However, after deliberation, individuals' ratings polarized toward the dominant valence of the evidence (incriminating or exonerating) and away from the bias induced by trial conditions (Kaplan & Miller, 1978). More specifically, there were no significant differences between trial conditions in post-deliberation ratings.

However, Kaplan and Miller also found an overall pattern of polarization, which is especially evident by examining the control conditions (e.g. no annoyance conditions), which reveal that participants in these conditions polarized towards their initial preferences as well. Because of the particular type of bias used in this study, Kaplan and Miller were able to report that deliberations had the effect of reducing reliance on biases. Once those biases were removed, Kaplan and Miller found evidence of polarization after deliberation, with jurors becoming more extreme in their ratings of guilt than they were

before deliberations. These effects demonstrate that it is possible to have both bias attenuation and polarization result from group deliberations, and that the effects of bias can be separated from the effects of group polarization (see note 1, *p* 46). However, it is important to point out that even though this study included deliberations, it did not require a group consensus, leaving conclusions regarding the effects of deliberation on jury verdicts speculative at best.

In discussing the potential mechanisms of bias reduction on juries, Kaplan and Miller claimed that jury discussion could promote an active discounting of bias by introduction of anti-bias norms, and/or promote passive bias reduction by increasing the amount of relevant evidence, or by increasing attention to such evidence via deliberation. Kaplan and Miller further proposed that deliberations would be useful in attenuation of bias because the process of deliberation would lead to relatively less weight being placed on extralegal, biasing information and relatively more weight being placed on the more applicable and appropriate trial information.

Kerr et al. (1999), extending the work from Kaplan and Miller (1978), sought to determine if case severity was a moderator in the relation between individual level and group level biases in juries, and also found evidence of both attenuation and exacerbation. Assuming that trial information exists on a continuum from extremely incriminating to extremely exonerating or weak, varying case strength was important, because it allows for a determination of whether bias is constrained by available evidence. Indeed Kerr et al. found that juries were less biased than jurors, but only in extreme cases. That is to say, when examining the effects of pretrial publicity on jury decision making, evidence of bias attenuation was found only when the case evidence

against the defendant on trial was weak. On the other hand, Kerr et al. found evidence of bias exacerbation when case materials moderately implicated the defendant such that juries actually showed more evidence of bias than individual jurors. Thus, both attenuation and exacerbation are possible, depending on the extremity of the evidence against the defendant.

These findings are consistent with Kalven and Zeisel (1966), who found that extralegal sentiments are most likely to influence jury verdicts in cases where the evidence clearly favors neither the defendant nor the prosecution. If the case is extreme in its implications of guilt or innocence, biasing factors do not appear to be as relevant or applicable given the evidence. Instead, only when the case is ambiguous do the effects of biasing factors come into play. Ambiguity also is implicated in biases because it is often in the case of ambiguous evidence that the individual seeks to “fill in the gaps.” According to Ellsworth (1993), ambiguous or incomplete information will tend to be interpreted in a fashion that is consistent with a person’s attitude and confirms his or her expectations. Thus, far from having free reign, biases are most likely constrained by one’s ability to find justification for preferred conclusions. People may believe what they want to believe only to the extent that reason permits; when strong arguments exist for counterattitudinal positions, they may be less able to continue previously held beliefs in the face of those arguments (Kunda, 2000).

However, it should be noted that Kerwin and Shaffer (1994), and Kaplan and Miller (1978) are merely suggestive as to the effects of deliberation. Neither were studies that examined the effects of attitudinal biases. Instead, these studies investigated the role of external biases on verdict outcome.

However, in a study that did examine the effects of an internal, attitudinal bias, similar results were found. Bray and Noble (1978) also found dual effects of exacerbation and attenuation in their study examining the effects of authoritarianism on verdicts, but in this study the effects were reversed from Kaplan and Miller (1978). That is to say, individuals became less extreme in their preferences, while groups became more extreme. Contending that those high in authoritarianism are characterized as conservative, rigid and punitive, it was hypothesized that they would also be more likely to convict and to recommend harsher penalties than those low in authoritarianism. Further, Bray and Noble predicted that these propensities would become more extreme when these individuals deliberated on a jury.

The stimulus for this case was an audiotaped recording of a murder trial, and subjects were asked to rate the guilt of the defendant and prescribe a prison sentence individually, then deliberate on homogeneous six person juries to a unanimous verdict and sentencing recommendation. Following deliberations, jurors were again asked to provide individual ratings, and answer a question asking them to rate their likelihood of their voting guilty for a murder charge if death were a potential penalty.

Results indicated that for individual jurors, shifts occurred in the direction of not guilty from pre-deliberation to post-deliberation preferences, and that high authoritarians changed more than low authoritarians. On the question assessing verdict if the death penalty was an option, individuals high in authoritarianism reported being significantly more likely to convict when the death penalty was an option than lows. Jury verdicts showed evidence of bias enhancement, however, in that deliberations produced attitude-consistent shifts, towards greater punishment severity for high authoritarians and towards

leniency for low authoritarians (Bray & Noble, 1978). Bias enhancement was evident when considering that although most juries reached a not guilty verdict, all that reached a guilty verdict were high authoritarians. Overall however, group verdict preferences shifted towards acquittal for all juries. The results of this experiment, like those of Kaplan and Miller, indicate that both attenuation and exacerbation are possible.

Another study that deals directly with the effects of pre-existing attitudes on individual and group level verdicts is by Davis, Spitzer, Nagao, and Stasser (1978). On the basis of their responses to a question regarding the likelihood that defendants in rape trials were generally guilty, jurors were labeled pro-prosecution, pro-defense and moderate. They were then randomly assigned to six person juries that were homogeneous as to predisposition and asked to reach a verdict as to a defendant on trial for rape. Results indicated that jurors' pretrial opinions affected guilt judgments both at the individual and at the group level, although the relationship between individual and group judgments did not reach a level of statistical significance. More specifically, individuals in pro-prosecution groups favored a guilty verdict 70% of the time, moderates 68% of the time, and pro-defendant 52% of the time. Group verdict preferences exhibited a similar pattern where the group favored guilt 49% (pro-prosecution), 48% (moderate) and 28% (pro-defendant) of the time. Bias attenuation was found for pro-prosecution and moderate groups (as compared to individual level preferences) such that group preferences were lower than individual pre-deliberation preferences. On the other hand, exacerbation was found for those who were pro-defendant such that the percentage of groups recommending guilt was less than the percentage of individuals recommending guilt. However, these conclusions are difficult to interpret given that there was an overall

trend towards acquittal, regardless of biasing condition. There is a possibility that due to the facts of the case and the presumably weak evidence presented, this trend diluted the effects of bias. The fact that even that the moderate group shifted significantly towards not guilty calls into question whether this study is conclusive about the effects of bias.

The finding of an overall movement towards acquittal is interesting in light of the fact that it is not unique to this study. Bray and Noble (1978), Kerr et al. (1999), and Davis et al. (1978), all reported an overall trend for conviction rates to be lower after deliberation. This suggests there may indeed be a reason to expect an overall bias attenuation effect on the part of those initially favoring guilty verdicts after deliberating in groups such that in all of these studies, the group verdict preferences were more in the direction of not guilty than individual verdict preferences.

On the other hand, not all group deliberation studies offer such hope for attenuation of bias, and indicate that at times, groups may in fact exacerbate individual level biases. According to Davis et al. (1978), preponderance of like-minded (biased) subjects might create an atmosphere that amplifies or pushes the bias further than would be anticipated from considering only the input level of individual bias. Thompson, Fong and Rosenhan (1981) found that juries were able to ignore biasing evidence when it favored the prosecution but not when it favored the defendant, suggesting only selective bias attenuation. As mentioned earlier, bias exacerbation was found for the moderate case version of Kerr et al. (1999), and for individual post-deliberation response preferences in Kaplan and Miller (1978).

The Court's contention that the process of deliberation can overcome individual biases arising specifically from the presence of pre-existing attitudes towards the death

penalty is an empirical one that has yet to be tested in the literature on jury decision making. But it is clear that on the basis of past research, that a claim for attenuation of attitudinal bias stemming from group deliberations is possible, but so is a claim for exacerbation. The results of Kerwin and Shaffer (1994), Kerr et al. (1999) and Davis et al. (1978) find that at times juries are less biased than jurors in the presence of group deliberations. On the other hand, studies such as Bray and Noble (1978), and the pro-defendant juries in Davis et al. have found evidence of bias exacerbation after deliberations.

Intrinsic vs. Extrinsic Biases

Most likely the differences found in the literature stem from the fact that not all biases are the same. The main differences between the biases studied lie in the origin and location of the bias. Whereas many of the previous studies (Kaplan & Miller, 1978; Kerr et al., 1999; Kerwin & Shaffer, 1994) have studied biases that come from outside of the individual, attitudes towards capital punishment are intrinsic in the individual. Overall, these studies indicate that the effects of extrinsic biases are limited such that they may only influence group verdicts when the evidence provides little insight as to the correct verdict. Also, extrinsic biases are subject to attenuation by the group, after which the facts of the case appear to determine group verdict. More specifically, in Kaplan and Miller, group deliberation removed the effects of the bias, after which further deliberations had the effect of polarizing decisions in the direction of the evidence. Further, in Kerr et al., when the evidence clearly favored a particular alternative (was extreme in its implications), biases had no effect. But when the evidence was such that it was unclear what the outcome should be, biases were influential.

On the other hand, studies examining intrinsic biases have provided conflicting results. Bray and Noble (1978) found that on an individual level, deliberations had the effect of moving everyone in the direction of not guilty. This was true for both high and low authoritarians (although more so for high authoritarians). At the group level however, evidence of bias exacerbation was found such that Bray and Noble found that high authoritarian groups became more conviction prone after deliberation and low authoritarian groups became even less conviction prone. On the other hand, Davis et al. (1978) found that while individual guilt ratings did not change, pro-prosecution and moderate groups attenuated individual biases, whereas pro-defendant groups exacerbated them (all groups in the Davis et al. study shifted in the direction of not guilty). Both studies found evidence of a general trend towards leniency after deliberation. Furthermore, it is unclear why even though the individuals in the Bray and Noble study shifted in the direction of not guilty, the group verdicts did not reflect this shift.

Shared Cognitions

One possible explanation is that, while aware of their own shifts in preferences, group members were not aware that others had similarly shifted. This possibility reflects an important element of group process, the extent to which individual members share information, and share a representation of the group's position. These concepts of information sharing and shared representations have been examined extensively in the small groups literature, and may help to explain these conflicting findings.

First, with regard to information sharing, a study by Wittenbaum and Stasser (1996) on hidden profiles is useful in understanding how information is processed in groups. The hidden profile paradigm is one in which information is distributed among

group members, including both shared information that each group member possesses, and unshared information which only certain members possess. The shared information leads to one response option, while consideration of shared and unshared information together leads to a different and superior response than the shared information alone. Thus, the hidden profile paradigm allows a researcher to assess which form of information was being discussed by the group from the group's final decision. The finding has been well documented that groups focus on and discuss shared information at the expense of unshared information, leading to their failure to uncover hidden profiles (Gigone & Hastie, 1996; Kerr & Tindale, 2004; Wittenbaum & Stasser, 1996).

According to Wittenbaum and Stasser (1996), groups omit unshared information from discussions in order to help members better relate to and understand each other. While favoring information that is shared by group members can have beneficial effects in terms of group cohesiveness, it can be problematic if the task is one in which a diversity of information would lead to better performance, or a better quality decision. Again, drawing on the capital punishment literature, if the findings of Butler and Moran (2002) hold true, then death qualified jurors who have focused on aggravating factors to the exclusion of mitigating factors would then tend to discuss the shared information. Given the findings from the hidden profiles literature, it seems even more unlikely that these groups would discuss the unshared information, which in this case might be the mitigating factors and death qualified juries would be more conviction prone than mixed juries.

Gigone and Hastie (1996) also found that common knowledge is weighed more significantly in group discussion than information not common to all group members. In

this study, individuals were given shared and unshared information regarding hypothetical students, and were asked to estimate first individually and then as a group, the likely grades the students had received. Results indicated that that the more group members who shared a certain fact, the greater impact that fact would have on the group's later decision. However, this effect was mediated by member opinion such that members' pre-discussion opinions were significantly related to the group's judgments over and above the amount of shared information (Gigone & Hastie, 1996). In other words, knowledge of shared opinions was more important than knowledge of shared facts.

Finally, not only is unshared information itself less likely to be sampled, but Sargis and Larson (2002) found that the presence of shared and unshared information can also affect group process such that individuals possessing only unshared information tended to participate less and contribute fewer comments in group discussions than those possessing shared information. Pointing out that shared information has an advantage over unshared information because it can be socially validated within the group, shared information tends to be weighted more heavily in group discussions (Sargis & Larson, 2002). Further, these authors predicted and found that the more information individuals in the group shared, the earlier this information would be discussed, the more frequently it would be discussed and the more this information would be validated in the group. In terms of participation, individuals holding information that was unshared among group members were predicted to be less likely to participate in the group discussions. The results of the study indicated that informationally peripheral members (possessing information not shared by the group) claimed fewer speaking turns, contributed fewer information based comments and showed a tendency to speak for a shorter amount of

time. Sargis and Larson found that group members who possessed unshared information withdrew from participation in the group's discussion, leading to greater emphasis being placed on shared information.

Thus, the literature in hidden profiles suggests that groups may indeed show biased information processing similar to individual biased processing, anytime the group is composed largely of members sharing preferences, opinions and information, due to the group's tendency to prefer shared information. It is therefore likely that the influence of shared attitudes in groups will depend on the number of other group members who also share information, the amount of participation of other members who do not share that information, and the weight that is assigned to such information when it is shared. In other words, the key to answering the question regarding the effects of deliberations on jurors' pre-existing attitudes lies in the *process* of deliberation, rather than mere presence.

Another useful concept that may help elucidate the effects of attitudinal biases is shared representations. According to Tindale and Kameda (2000), the degree of sharedness affects how groups reach consensus, how they use and share information, and which members and arguments are most influential during discussion. A shared representation is any task/situation relevant concept or norm, perspective or cognitive process that is shared by most or all of the group members (Tindale, Smith, Thomas, Filkins & Sheffey, 1996).

Tindale et al. (1996) state that the impact of a shared representation depends on the degree to which it is shared among group members, and to the degree to which other conflicting shared representations may be present. In this way, it can be concluded that death qualified jurors share a punitive representation given that they have all expressed

having pro-capital punishment attitudes during voir dire. A person's position on an attitude dimension could serve as both a preference and as an argument or a piece of information when choosing a decision alternative (Tindale & Kameda, 2000). If so, the evidence presented earlier by Soss et al. (2003), and Fitzgerald and Ellsworth (1984), which showed that those holding pro-death penalty attitudes had similar beliefs and orientations certainly seems to indicate that these individuals share many punitive representations which could be used in a number of ways in deliberation.

However, in order to fully understand the role that attitudes play on verdicts, what is needed is a paradigm that allows for examination of the input and output of the group, along with what happened in the middle, or how pre-deliberation preferences are combined to produce collective outcomes. For this task, the SDS approach is particularly useful.

Social Decision Schemes

In 1973, Davis formulated the Social Decision Scheme (SDS) model to describe how groups move from individual inputs to a collective output. Finding extant models lacking, Davis sought to conceptualize a method of studying groups that answered questions regarding process without directly observing group interactions (Levine, 1999). Since that time, the SDS model has been applied to a large number of empirical questions and has proved to be a useful tool for studying group process.

The model begins with the assumption that small group interaction can be seen as a combinatorial process where task elements (e.g. ideas, task responses, preferences, etc.), must be combined in such a way as to allow a group to reach consensus on a particular task (Tindale et al., 1996). As such, the model holds promise for elucidating

group process. Thus, if the initial distribution of opinion is known before group deliberation, the SDS model allows for predictions of outcomes under different assumptions about group process. (See Chapter 1 for an explanation of social decision schemes.)

One of the benefits of the SDS model, according to Levine (1999), is that it forces theorists to be explicit about their assumptions. In order to know which SDS to use in making predictions, one must have some underlying knowledge about the phenomena in question, and have theoretical rationale for predicting which SDS is likely to be descriptive. As mentioned earlier, once an SDS is chosen, each element in the matrix represents the probability that the given distribution will lead to each possible collective response. After data have been collected, the probabilities predicted by the model are compared to the probabilities achieved to determine whether the model is a good fit for the data. Kerr, Stasser and Davis (1979) refer to this as the model testing approach.

Many investigations using the SDS approach have found that when it comes to jury decision making in general, the scheme that best fits is a Majority Wins, Defendant Protection Otherwise scheme (Davis et al., 1981; Tindale & Davis, 1983). As described by Kerr et al. (1999), this is a majority primary scheme (if as many as 2/3 of jurors initially agree on a verdict, that will be the jury's ultimate verdict), with an asymmetric subscheme (when jurors are closely divided at the start of deliberation, factions favoring acquittal are somewhat more likely to prevail than factions favoring conviction—a pattern ultimately attributable to the law's injunction to give the defendant the benefit of any reasonable doubt).

With regard to the defendant protection subscheme, MacCoun and Kerr (1988) found that there was a bias for acquittal, referred to as the leniency bias, in criminal jury deliberation which qualifies the initial majority wins scheme. The leniency bias refers to the fact that initial majorities favoring not guilty are more powerful than majorities favoring guilty (Tindale et al., 1996). One could speculate that especially in capital murder trials (ones in which the death penalty is an option), the leniency bias is especially salient.

Tindale et al. (1996), contend that due to the defendant protection norm, or leniency bias, it is expected that a 12 person jury without an initial two-thirds majority will decide not guilty 75% of the time and hang 25% of the time. They also predict this result for juries with an initial 7-5 person majority favoring guilty. Thus, Tindale et al. found that the defendant protection model shifts the verdict distribution toward not guilty, resulting in an asymmetrical decision scheme. Asymmetry results when a particular alternative is easier to defend or is more demonstrable, which defendant protection appears to be in this case.

In fact, demonstrability most likely holds the key as to the type of SDS matrix that is descriptive of jury decision making in capital cases. Demonstrability as identified by Laughlin and Ellis (1986) refers to an appeal to a shared representation that allows the ‘correctness’ of one alternative to be demonstrated by its advocate(s) to other group members. When groups cannot demonstrate that a particular alternative is optimal or correct during discussion, correctness tends to be defined by group consensus (Tindale & Kameda, 2000). Furthermore, the answer does not have to be objectively correct for it to be demonstrable, so long as it is consistent with a shared conceptual system (Laughlin &

Earley, 1982). If all members of a group share a belief system that lends credence to a particular alternative, that alternative becomes easier to defend in a group discussion (Tindale et al., 1996). Thus, the demonstrable solution becomes compelling even when it is presented by a minority of individuals because it appeals to the shared representation of the group, and within that view, is “correct.” Things that are shared to a greater degree within groups will have a larger influence on the relevant group outcomes than those shared to a lesser degree (Tindale & Kameda, 2000).

SDS Approach and Bias

In addition to its appeal in terms of elucidating group process under different decisional contexts, the SDS approach may be quite useful in determining the effects of certain types of biases on individual juror and group jury decision making because it allows for a probabilistic comparison of the two. Kerr et al. (1999) applied the SDS model to jury decision making groups and concluded that the model offers promise for determining when groups would show a reduction of bias relative to individual jurors. In Kerr et al.’s approach, examining the presence and intensity of bias using the SDS matrix is done by calculating what the probability distributions of jury verdicts should look like for any particular combination of ($P_{\text{high bias}}$, $P_{\text{low bias}}$), where P = probability of guilty, not guilty outcomes under conditions of high or low bias. One is then able to observe whether the difference between these conditions at the group level is greater or smaller than it is for individuals.

The SDS analysis is also useful because it allows for a determination of whether the form of the social decision process itself depends upon extralegal factors or biases. In other words, if one were able to show that the decision process is qualitatively different

for juries composed solely of advocates of the death penalty than it is for mixed juries, then a strong case can be made for bias in that the same evidence yields very different outcomes.

An Integration of Prior Research

While social decision schemes are immensely helpful in numerically describing group process and outcome distributions, they lack an explanation regarding the procedural mechanisms responsible for these outcomes. This is where the concept of shared representations, discussed above, may be useful. Moreover, the concept of shared representations may be especially informative in understanding why different matrices are predictive of jury decision making.

More specifically, it is possible that the 2/3 Majority, Defendant Protection Otherwise process best describes jury research because the jurors shared only the representation of the leniency bias that is embedded in the American jury system which results in asymmetry towards acquittal. Further, it is likely that they had no other shared representations among them (because they were of mixed attitudes).

On the other hand, the process of death qualification ensures that all jurors share the representation of being in favor of the death penalty. In this case, a different SDS matrix may be descriptive of jury decision making, the Truth Supported Wins social decision scheme. In this decision scheme, groups with at least two members appealing to the demonstrable answer will reach consensus on that answer most of the time reflecting an asymmetric influence toward the correct answer (Tindale et al., 1996).

By analogy, Conviction Supported Wins may be the SDS for death qualified juries because finding a defendant guilty and sentencing him/her to death is demonstrably

consistent with the shared representation of the group. Additionally, if a member makes an appeal to the crime control representation held by death qualified jurors, it is likely that the probability of conviction will be higher in such groups than if there were no such shared representation. Just as the leniency bias is easier to defend than conviction (Stasser, 1999), it is possible that for death qualified jurors, conviction is easier to defend than leniency. In other words, conviction supported wins.

Therefore, two different SDS schemes are possible depending on the attitudes and biases held by jurors. The 2/3 Majority, Defendant Protection Otherwise scheme that has been commonly found in jury research (Davis et al., 1981; Kerr et al., 1999; Tindale & Davis, 1983) should account for mixed jury verdicts. It is expected that if jurors share no other representation among them other than the shared leniency bias, and are mixed with regard to death penalty attitudes, the 2/3 majority scheme will provide a good fit to the data. On the other hand, if jurors are homogeneous, sharing the representation of being in favor of the death penalty, it is expected that something closer to the Conviction Supported Wins scheme will be better fit because the shared representation of conviction should be easier to defend.

APPENDIX B

CONSENT FORM

You are being asked to participate in a research project concerning jury decision making. The person responsible for this project is Dr. Richard McGlynn, Department of Psychology, Texas Tech University, phone (806) 742-3711, ext. 255 and his assistant, Jacqueline Cottle, Department of Psychology, Texas Tech University phone (806) 742-3711, ext. 476.

The purpose of this project is to determine the kinds of decisions jurors make in criminal cases. If you agree to participate, you will watch a videotape and be asked to make judgments regarding the defendant in the video. You will also be asked to deliberate in small groups and make group judgments about the defendant in the video.

The total duration of your participation will be about 120 minutes.

There are no risks to you that might result from participation.

In return for the time invested in this project as a subject, you will receive two credits toward a requirement in your Psychology class as stated in the course syllabus or described by your instructor. If you are not currently enrolled in a Psychology course, you will receive a certain amount of extra credit in your course, as described by your instructor.

Only Dr. McGlynn and his assistants will have access to the identifiable records and/or data collected for this study; and all data associated with this study will remain strictly confidential.

Participation is voluntary. There is no penalty for refusal to participate. You may withdraw from the experiment at any time without penalty.

Ms. Cottle and/or Dr. McGlynn will answer any questions you have about the study. For questions about your rights as a subject or about injuries caused by this research, contact the Lamar University Institutional Review Board for the Protection of Human Subjects, P.O. Box 10028, Beaumont, Texas 77710. Or you can call (409) 880-8285.

Please sign your name if you agree to participate in this study.

Signature of Subject _____ Date: _____

Printed Name: _____

This consent form is not valid after July 1, 2007.

APPENDIX C

ATTITUDES TOWARDS DEATH PENALTY SCALE

With regard to the death penalty in the United States, please answer the following questions on the scantron provided bubbling in the appropriate number to indicate your response.

1. I support the use of the death penalty.

0	1	2	3	4	5	6	7	8	9
Don't support at all									Wholeheartedly support

2. I believe that the death penalty is an effective deterrent to crime (i.e. keeps people from committing crimes).

0	1	2	3	4	5	6	7	8	9
Not effective at all									Extremely effective

3. I believe that the death penalty is used too often in this country.

0	1	2	3	4	5	6	7	8	9
Used too often									Not used enough

4. I believe that there are some crimes for which there should be an automatic death sentence.

0	1	2	3	4	5	6	7	8	9
Don't believe this statement									Wholeheartedly believe this statement

5. I myself would have no problem sentencing someone to death if the facts in the case supported the death penalty.

0	1	2	3	4	5	6	7	8	9
I could never give the death penalty									I would have no problem giving the death penalty

6. I believe that it is better for society to let some guilty people go free than to risk convicting an innocent person.

0	1	2	3	4	5	6	7	8	9
Don't believe this statement									Wholeheartedly believe this statement

7. If you were to be sitting on a criminal jury, could you be fair and impartial in deciding the question of guilt or innocence, knowing that if the person was convicted, he or she might get the death penalty?

0	1	2	3	4	5	6	7	8	9
I could not be fair and impartial									I could still be fair and impartial

APPENDIX D

EXPERIMENTER SCRIPT USED FOR STUDY

[As students enter into experiment area, check names off lists by last name. Each research assistant is to have a list of up to 15 names in alphabetical order and numbered. Assistants will be seated at tables with index cards in front of them indicating the names on their list (e.g. A-Ch). The experimenter will assist with helping students find their appropriate RA. At this time they will also be asked if they have something to write with, and given a pencil if they do not have one. Also on the lists of names will be their scores on the Attitudes towards the Death Penalty scale administered during the Mass Survey. Upon checking in, participants will receive a number and will be seated in the main room by number, similar to how it is on a real jury.]

Good morning/afternoon and thank you for participating in our experiment today. At this time we ask that you turn off all cell phones or pagers. When you came in today you were given an informed consent form asking if you agree to participate in this experiment. As you can see from the form, this experiment is designed to examine jury decision making, and the approximate time of your participation is around 2 hours, for which you will receive 2 credits towards your Intro Psychology course requirements. If you agree to participate in the experiment, please sign one copy and pass it to the end of the row. The other copy is for you to keep if you so desire.

As I mentioned earlier, this study is interested in jury decision making. As such, you will be watching a trial video regarding the defendant Terri Gilbert. Since we are interested in how juries make decisions in the real world, we ask that you treat this experiment as if you had been called to sit on a real jury and as if your decisions carried the full weight of the law.

You will be asked to reach a verdict based on the facts of the case and the law the judge explains to you, just as you would if you were an actual juror. We would like you to pay close attention to the testimony and the judge's instructions and to try to take the case as seriously as you would if you were sitting on an actual jury. While you are listening to the case, you should not communicate with anyone else, and you should not take any notes, because we want your experience to be as much like that of a real juror as possible (this paragraph adopted from Cowan, Thompson & Ellsworth, 1984).

Do you have any questions before we begin? This tape will last about 30 minutes long and then I will come back and give you your next instructions. {EXPERIMENTER WILL STAY IN ROOM WITH STUDENTS WHILE RA'S COMPOSE}

[PLAY VIDEO]

Ok, do you all have something to write with? At this time, we are going to hand out a brief questionnaire we would like you to fill out with regard to the video you just

watched. Please put your juror number in the top right hand corner, this is the number given to you at the beginning of the experiment.

Now you've seen the whole case and heard the judge explain the law. Please fill out this form as if you were sitting on a jury and had to vote right now. This is to be your own personal individual decision, so please keep your feelings to yourself and don't look to other people to see what they are thinking (paragraph adopted from Cowan, Thompson & Ellsworth).

When you are finished, please put your pens/pencils down and look up so that we know you are finished.

Ok, at this time, we are going to take a 10 minute recess. We ask that you again not discuss this experiment or the case with anyone during this time. It is imperative for the experiment that we make this as similar as possible to a real jury situation. The bathrooms are *****. We need you all to be back in this room in exactly 10 minutes. When you come back, please sit in the same places you are sitting now.

[During this time, RAs will gather the individual questionnaires that correspond with individuals on their lists (and seated by appropriate rows). The questionnaires will be scored as either guilty (1) or not guilty (0) and these preferences will be recorded on their check in sheets. At this time, the RAs will randomly compose as many groups as possible corresponding to the SDS matrices and assign each participant to a group.]

Ok, thank you for returning on time. At this time, we are going to place you into juries. When you hear your number called out, please gather your things and follow the experimenter I tell you to follow. You will not be returning to this room, so make sure you have all your things with you. It may take some time to get all of you into your rooms, so please be patient and again, do not discuss this case with anyone until you are told to do so.

Since there may be some waiting time while we take all the groups to their rooms, we are going to hand out some puzzles to do, only if you wish, to help pass the time. These are yours and are not going to be taken up, and you do not have to take one if you do not wish to do so.

[Each RA will take one group to a room and give them the instruction sheet including jury charge for deliberation. When they have taken their groups to their rooms, and given them the forms, they will return to the main room and get their next group, and so on until all groups are in separate classrooms. After bringing each group into the room, the assistant will read the following instructions to the group:

‘Now that you have been placed on a jury, we ask that you deliberate together until you reach a unanimous verdict recommendation with regard to the defendant Terri Gilbert. As you discuss the case, it is important that you put yourselves in the role of jurors. Imagine that you are real jurors and your decision will be carried out with the full weight

of the law. In most real jury situations, jurors deliberate for a number of hours, and in some cases, even days. We won't keep you here for that long, but we do ask that you deliberate this matter thoroughly and completely and make sure that each group member's opinions are heard. You will have 40 minutes to deliberate and decide upon a verdict. Again, as we are going for realism, we ask that you deliberate as if this case, and your determinations, are real and will be carried out. Here is the form you are to fill out as a jury. You note that on the top are the judge's instructions as to how you are to deliberate and reach a verdict. Once you have elected a foreman for your jury, I ask that the foreman read these aloud to the group very carefully.

[HAND OUT FORM AND POINT OUT JURY CHARGE]

When you have reached a **unanimous** verdict (which means that everyone agrees with the verdict recommendation), please open the door and let me know that you are done. If I am not sitting there, it means that I am working with another group and I will be finished momentarily. Please leave the door open and I will come in when I am done. Do you have any questions?

[IF THE GROUPS VOTED GUILTY, THEN THEY WILL BE READ THE FOLLOWING INSTRUCTIONS, IF THEY VOTE INNOCENT, THEN GO STRAIGHT TO DEBRIEFING STATEMENT]

“Given that you have chosen a guilty verdict for this defendant, I am now going to give you a sentencing recommendation form. Please again deliberate as a group until you reach a unanimous verdict and indicate on this form what your recommendation is. Again, we ask that you deliberate thoroughly and completely, making sure that everyone's opinions are heard, until you are unanimous on your verdict. You will have _____ minutes to deliberate and decide upon a sentence for the defendant. When you are finished, again, please come out to the hall and get me.”

[ONCE THEY HAVE FINISHED THEIR SENTENCING RECOMMENDATIONS, ASK THE MEMBERS TO SIT IN DIFFERENT CHAIRS SO THAT THEY ARE NO LONGER FACING EACH OTHER]

“Thank you. We have one more form for you to fill out at this time. **This form you are to fill out individually and not as a group.** Thus, we ask that you spread out at this time in different chairs. Also, please do not talk to anyone during the time you are filling these out. Please answer these questions with regard to your impressions of the defendant as they are **right now**, in other words, you do not have to try to remember what you put on the first form, simply indicate your impressions as they are right now. Please make sure you only circle one response for each question, and please make sure you answer every question on the form. When you are finished, please turn over your papers to let me know you are finished. When you are all finished, I will return to take up these forms and tell you a little more about the experiment. Any questions?”

Debriefing Statement

I want to thank you again for participating in our experiment. As was mentioned at the beginning of the study, this experiment concerns jury decision making. We are interested in knowing how one's pre-existing attitudes influence jurors' verdicts and deliberations. We are especially interested in how attitudes affect the group process. More specifically, we were interested in how one's attitude towards capital punishment influences what happens when jurors deliberate with regard to capital murder cases. If you remember, you answered a few questions at the beginning of the semester in the Mass Survey about your beliefs regarding the death penalty. Therefore, your scores on that survey will be matched with your responses here today so that we can see what role one's attitudes have in jury deliberations and jury verdicts. In real capital juries, or juries where the death penalty is an option in the case, those who are in favor of the death penalty are often kept on the jury and those opposed to the death penalty are often rejected from serving, so the question of how attitudes influence verdicts and deliberations is an important question to answer.

Since the total time of your participated today was [two] hours, you will receive 2 credits towards your psychology requirements. We want to ask that you not discuss this experiment with anyone else who may be a participant. If they know the purpose of the experiment, it may change how they respond to the materials and then we would not get the best quality data. We ask that you not discuss this experiment with anyone else; can you all agree to do that? Thank you.

If you have any questions about the experiment, please feel free to come up and ask me now, if you do not have any questions, you are free to go. Credit will be assigned within 24 hours of your participation. Thank you again and have a great day!

APPENDIX E

INDIVIDUAL PREDELIBERATION FORM

_____ Juror #

FOR ALL RESPONSES, PLEASE INDICATE ONLY ONE ANSWER CHOICE AND PLEASE ENSURE THAT YOU HAVE ANSWERED ALL QUESTIONS

Please indicate by placing an ‘X’ next to the statement, whether you feel the defendant is:

____ Guilty of capital murder

____ Not guilty of capital murder

Please indicate the degree of certainty you have that your verdict choice above is correct. *(Again, please circle only one option for each and please be sure to answer ALL of the questions).*

0	1	2	3	4	5	6	7	8	9	10
not at all										completely
certain										certain

Out of 100 total possible percentage points, please indicate by percentage, how influential the testimony of each of the following individuals was to your decision: (Please ensure that your percentage points add up to 100%).

Detective Vicki Ortiz	_____ %
Detective Joe Foster	_____ %
Dr. Arthur Ginsburg, Defense Visibility Expert	_____ %
Ms. Terri Gilbert	_____ %

Maximum possible points: 100% total

Please indicate how influential the prosecution’s opening statement was to you in making your decision:

0	1	2	3	4	5	6	7	8	9	10
not at all										extremely
influential										influential

APPENDIX F

JURY VERDICT RECOMMENDATION FORM

Jury # _____

*Now that you have been placed on a jury, we ask that you deliberate together until you reach a **unanimous** verdict recommendation with regard to the defendant Terri Gilbert. As you discuss the case, it is important that you put yourselves in the role of jurors. Imagine that you are real jurors and your decision will be carried out with the full weight of the law. You are given the following instructions from the judge with regard to this matter:*

A criminal trial is the means whereby a defendant is brought to trial in a felony prosecution. It is not evidence of guilt nor can it be considered by you in passing upon the issue of guilt of the defendant. The burden of proof in all criminal cases rests upon the State throughout the trial and never shifts to the defendant.

All persons are presumed innocent, and no person may be convicted of an offense unless each element of the offense is proved beyond a reasonable doubt. The fact that she has been arrested, confined or indicted for, or otherwise charged with the offense gives rise to no inference of guilt at her trial. In case you have a reasonable doubt as to defendant's guilt after considering all of the evidence before you, and these instructions, you will acquit her and say by your verdict "Not Guilty."

A reasonable doubt is a doubt based on reason and common sense after a careful and impartial consideration of all the evidence in the case. It is the kind of doubt that would make a reasonable person hesitate to act in the most important of his/her own affairs.

Proof beyond a reasonable doubt, therefore, must be proof of such a convincing character that you would be willing to rely and act upon it without hesitation in the most important of your own affairs.

You are the exclusive judges of the facts proved, of the credibility of the witnesses, and the weight to be given their testimony, but the law you must be governed by you shall receive in these written instructions.

You should have selected one of your members as a Foreman. It is his/her duty to preside at your deliberations, vote with you, and when you have unanimously agreed upon a verdict, to certify to your verdict by using the appropriate form attached hereto and signing the same as Foreman.

No one has any authority to communicate with you except the officer who has you in charge. During your deliberations in this case, you must not consider, discuss, nor relate any matters not in evidence before you. You should not consider or mention any

personal knowledge or information you may have about any fact or person connected with this case which is not shown by the evidence.

After you have made your verdict recommendation, each member of the jury is to sign the verdict recommendation form indicating their agreement with such a decision.

(PLEASE CHECK ONLY ONE OPTION)

Please indicate by placing an 'X' next to the statement, whether you feel the defendant is:

___ Guilty of capital murder

___ Not guilty of capital murder

Please indicate the degree of certainty you have that your verdict choice above is correct. (Again, **please circle only one option for each**).

0	1	2	3	4	5	6	7	8	9	10
not at all										completely
certain										certain

Once you have come to a unanimous verdict in this case, please open the door and alert your experimenter that you are finished. If the experimenter is not sitting outside the door, please know that they are in with another group and will be with you momentarily. Please leave the door open so that they know you are finished.

Signed: _____

APPENDIX G

JURY SENTENCING RECOMMENDATION FORM

Now that you've reached a verdict in the above case, we now ask that you again deliberate until you have reached a unanimous recommendation as to the sentence for the defendant Terri Gilbert. You are again asked to consider the following judge's instructions with regard to your decision:

SENTENCING PHASE

LADIES AND GENTLEMEN OF THE JURY:

By your verdict in this case, you have found the defendant Terri Gilbert, guilty of the offense of capital murder, which was alleged to have been committed on or about August 18, in Broward County. It is necessary, now, for you to determine, from all the evidence in the case, the sentence for the defendant, keeping in mind these instructions. The Court instructs you further as follows:

1. The mandatory punishment for capital murder is death or confinement in the penitentiary for life.

You are instructed that you are not to be swayed by mere sentiment, conjecture, sympathy, passion, prejudice, public opinion or public feeling in considering all of the evidence before you and in determining your sentencing recommendation.

2. In determining your sentencing recommendation, you shall consider all the evidence submitted to you in this trial, which includes that phase of the trial wherein you are now called upon to determine the sentence for the defendant.
3. You shall consider all evidence submitted to you during the whole trial as to the defendant's background or character or the circumstances of the offense that mitigates against the imposition of the death penalty.
4. The burden of proof rests upon the State, and it must prove the affirmative of such issues **beyond a reasonable doubt**.

A reasonable doubt is a doubt based on reason and common sense after a careful and impartial consideration of all the evidence in the case. It is the kind of doubt that would make a reasonable person hesitate to act in the most important of his/her own affairs.

Proof beyond a reasonable doubt, therefore, must be proof of such a convincing character that you would be willing to rely and act upon it without hesitation in the most important of your own affairs.

5. You are instructed that you may not impose a sentence unless all jurors agree to such an answer. It is not necessary that members of the jury agree on what particular evidence supports a sentencing recommendation.
6. You are to consider mitigating factors in your sentencing recommendation. 'Mitigating factors' are circumstances which do not constitute a justification or excuse for the offense in question, but which, in fairness and mercy, may be considered as extenuating or reducing the degree of moral culpability. Under the law, it is not unconstitutional to place the burden of proof as to mitigation on the defendant. As mitigation is thought of as a defensive issue, the burden of proof is on the defendant to prove mitigation.

Please indicate your recommendation for sentencing for the defendant by placing an "X" next to your response option. **(Again, please indicate only one response).**

_____ Death by lethal injection

_____ Life imprisonment

_____ Prison term of **no less than 20 years up to a maximum of 50 years**. Indicate number of years here: _____.

Please list the rationale for your sentencing recommendation below:

Once you have come to a unanimous sentencing recommendation in this case, please open the door and alert your experimenter that you are finished. If the experimenter is not sitting outside the door, please know that they are in with another group and will be with you momentarily. Please leave the door open so that they know you are finished.

Signed: _____

APPENDIX H

INDIVIDUAL POSTDELIBERATION FORM

_____ Juror #

FOR ALL RESPONSES, PLEASE INDICATE ONLY ONE ANSWER CHOICE AND PLEASE ENSURE THAT YOU HAVE ANSWERED ALL QUESTIONS

Please indicate by placing an 'X' next to the statement, whether you feel the defendant is:

_____ Guilty of capital murder

_____ Not guilty of capital murder

*For the following questions, please circle the number that corresponds to your personal beliefs regarding this case. (Again, please circle only **ONE** option for each).*

1. Please indicate the degree of certainty you have that your verdict choice above is correct.

0	1	2	3	4	5	6	7	8	9	10
not at all certain										completely certain

2. Please indicate how concerned you are with the crime rate in this country.

0	1	2	3	4	5	6	7	8	9	10
not at all concerned										very concerned

3. Please indicate how much you believe that the criminal justice system is fallible (i.e. likely to make mistakes).

0	1	2	3	4	5	6	7	8	9	10
not at all fallible										very fallible

8. Depth of evidence processing.

0 1 2 3 4 5 6 7 8 9 10
Not at all Very much

9. Respect for all group members' opinions and preferences.

0 1 2 3 4 5 6 7 8 9 10
Not at all Very much

10. How much your group discussed the belief in innocence until proven guilty.

0 1 2 3 4 5 6 7 8 9 10
Not at all Very much

11. How much you felt heard in your group (i.e. that your opinions mattered).

0 1 2 3 4 5 6 7 8 9 10
Not at all Very much

12. How much verdict/sentence reflected a unanimous decision.

0 1 2 3 4 5 6 7 8 9 10
Not at all Very much

13. How much the other group members shared your opinion regarding the facts of the case.

0 1 2 3 4 5 6 7 8 9 10
Not at all Very much

14. How much you believed this process was fair.

0 1 2 3 4 5 6 7 8 9 10
Not at all Very much

15. How much you believed your decision was fair.

0 1 2 3 4 5 6 7 8 9 10
Not at all Very much

Juror # _____

0 1 2 3 4 5 6 7 8 9 10
 Not guilty Guilty

Juror # _____

0 1 2 3 4 5 6 7 8 9 10
 Not guilty Guilty

Please indicate what your **own personal** recommendation for sentencing would be for the defendant by placing an ‘X’ next to your response option. (**Again, please indicate only one response**).

_____ No sentence, I believe the defendant is not guilty.

_____ Death by lethal injection

_____ Life imprisonment

_____ Prison term of **no less than 20 years up to a maximum of 50 years**. Indicate number of years here: _____.

Please list the rationale for your sentencing recommendation below:

Please indicate the degree of certainty that the defendant committed the crime that you feel is necessary to justify a verdict of guilty? (**Again, please place an “X” by only ONE statement**).

- _____ I would have to be 10-20% certain
- _____ I would have to be 21-30% certain
- _____ I would have to be 31-40% certain
- _____ I would have to be 41-50% certain
- _____ I would have to be 51-60% certain
- _____ I would have to be 61-70% certain
- _____ I would have to be 71-80% certain
- _____ I would have to be 81-90% certain
- _____ I would have to be 91-100% certain