2002

The impact of gruesome evidence on mock juror decision making: the role of evidence characteristics and emotional response

Robert J. Nemeth
Louisiana State University and Agricultural and Mechanical College, rnemeth@unlserve.unl.edu

Follow this and additional works at: https://digitalcommons.lsu.edu/gradschool_dissertations

Part of the Psychology Commons

Recommended Citation
https://digitalcommons.lsu.edu/gradschool_dissertations/131

This Dissertation is brought to you for free and open access by the Graduate School at LSU Digital Commons. It has been accepted for inclusion in LSU Doctoral Dissertations by an authorized graduate school editor of LSU Digital Commons. For more information, please contact gradetd@lsu.edu.
THE IMPACT OF GRUESOME EVIDENCE ON MOCK JUROR DECISION MAKING:
THE ROLE OF EVIDENCE CHARACTERISTICS AND EMOTIONAL RESPONSE

A Dissertation
Submitted to the Graduate Faculty of the Louisiana State University and Agricultural and Mechanical College in partial fulfillment of the requirements for the degree of Doctor of Philosophy
in
The Department of Psychology

by
Robert J. Nemeth
B.S., Louisiana State University, 1996
M.A., Louisiana State University, 1999
December 2002
Dedication

This work, the culmination of my graduate career, is dedicated to my mother and the memory of my father.
Acknowledgments

I wish to express my gratitude to a number of individuals and organizations who were instrumental in the development of my graduate career and ultimately, this dissertation. First of all, I must express my deep thanks to my graduate advisor, Brian Bornstein, who served as my mentor over the years. My professional development is due to his careful tutelage. In addition, I must thank the cognitive psychology program at Louisiana State University, both faculty and fellow graduate students, for training me to be an experimental psychologist.

I also wish to thank my committee members, Janet McDonald, Brian Bornstein, Jason Hicks, Bob Mathews, and William Archambeault, whose insightful comments guided the completion of this dissertation.

The data collection for this project would not have been possible without the assistance of the psychology department at the University of Nebraska-Lincoln. In particular, I wish to thank the Law/Psychology program at UNL for its support.

I also wish to thank Leigh Johnson for help with the pilot data collection and Robert Bothwell for the photographic materials and assistance with the administration of the authoritarianism scale.

Finally, I wish to thank my family, my mother, and my friends, Jody Lewis and Max Post van der Burg, for their emotional support throughout the completion of this project.
# Table of Contents

Dedication ................................................................ iii

Acknowledgments ........................................................ iv

Abstract ................................................................ vii

Introduction ................................................................ 1
   Empirical Studies ........................................................ 2
   Underlying Mechanisms ................................................. 15
      Vividness ................................................................. 16
      Mood/emotion Effects ............................................... 18

Experiment 1 ............................................................... 22
   Method ............................................................... 24
      Participants ...................................................... 24
      Materials ....................................................... 24
      Procedure ....................................................... 32
   Results ............................................................... 34
      Voir Dire ....................................................... 34
      Manipulation Check ............................................... 35
      Emotional Arousal Analyses ....................................... 39
      Verdict Analyses .................................................. 40
      Sentencing Analyses ............................................... 48
      Analyses of Perceptions of Gruesome Evidence ............... 49
      Analyses of Participants’ Memory for Trial Evidence ...... 50
      Analyses of Authoritarianism ..................................... 52
   Discussion ............................................................ 54
      Effects on Mock Jurors’ Verdicts ................................. 54
         Failure to replicate past research ............................... 54
         Underlying mechanisms ......................................... 58
      Effects on Mock-Jurors’ Sentencing Decisions ............... 63

Experiment 2 ............................................................... 66
   Method ............................................................... 67
      Participants ...................................................... 67
      Materials ....................................................... 68
      Procedure ....................................................... 68
   Results ............................................................... 69
      Voir Dire ....................................................... 70
      Manipulation Check ............................................... 70
      Emotional Arousal Analyses ....................................... 72
Abstract

Two experiments were conducted to investigate the effects of gruesome evidence on mock jurors’ decisions in a simulated capital trial. The first experiment was designed as a replication and extension of Douglas, Lyon, and Ogloff (1997), who found that mock jurors who were presented with gruesome photographic evidence were nearly twice as likely to convict the defendant than participants who did not see the gruesome evidence. In Experiment 1, gruesome evidence was manipulated in two ways: photographic evidence (low gruesome, highly gruesome, or control photographs) and verbal testimony (low gruesome vs. highly gruesome). Neither photographic evidence nor testimony had an effect on mock jurors’ verdicts or sentence decisions. However, the manipulation check failed to indicate that participants perceived the evidence differently in terms of gruesomeness. Experiment 2 was designed to address whether inducing specific emotions in participants would produce similar biasing effects on their decisions as gruesome evidence. Previous research has eluded to emotional arousal as a potential mediator of the effects of gruesome evidence. Participants were induced to feel either angry or sad and were compared to participants who were given a neutral-emotion induction and viewed either low or highly gruesome photographs. The results indicated that neither emotion nor gruesome photographic evidence had an effect on participants’ verdicts. However, participants’ who viewed highly gruesome photographic evidence were more likely to decide on the death sentence than participants who viewed the low gruesome evidence. The results are discussed in light of the previous research on gruesome evidence and theories of emotion and decision making.
Introduction

The use of gruesome photographs has generated substantial controversy over its admissibility in criminal and civil trials (Fagan, 1993). The controversy rests on how well gruesome photographs prove or illustrate some material issue of the case versus how much it may inflame and prejudice the jury (Bornstein & Nemeth, 1999; Fagan, 1993). Generally, most jurisdictions follow Rule 401 of the Federal Rules of Evidence when determining whether gruesome evidence is relevant. The rule states that evidence is relevant if it tends to make any fact pertaining to the case at hand more or less probable than without the evidence. Nonetheless, Rule 403 of the Federal Rules of Evidence outlines when relevant evidence may be excluded. This rule states that any relevant evidence may be excluded if its probative value is substantially outweighed by its potential to prejudice, cause confusion, or mislead the jury, or if the presentation of the evidence will waste the court’s time or be unnecessarily cumulative. Thus, photographic evidence, which may be relevant, could be excluded if it were deemed too inflammatory. Exclusion based on the prejudicial effect argument would be left up to the judge’s discretion. Furthermore, if gruesome photographs were admitted, the inflammatory argument could also serve as a basis for appeal.

Relevancy grounds for the admissibility of graphic photographic evidence include: (1) allowing the jury to view the facts that constitute an expert witness’ testimony, (2) allowing the jury to view the condition of the deceased, (3) providing material evidence linking the murder weapon to the cause of death, (4) assisting the jury in understanding theories put forward to the court (5) providing evidence for possible intent for the offense, and (6) allowing the jury to see the identity of the deceased (Douglas, Lyon, & Ogloff, 1997; Jacobs v. Singletary, 1992;
Kuntzelman v. Black, 1985; United States v. Goseyun, 1986; United States v. Soundingsides, 1987). Nonetheless, defense attorneys argue that the use of graphic photographic evidence may constitute a violation of the Sixth Amendment to the Constitution which guarantees a defendant’s right to a fair and impartial trial.

The actual classification of photographic evidence as either real evidence or demonstrative evidence varies depending on the court. Some courts admit photographic evidence as substantive evidence without need for additional testimony. This view differs considerably from the point of view held by other courts, which hold that photographs are merely illustrative. In this case, photographs are viewed more as demonstrative evidence—evidence which is directly addressed to the senses but holds no probative value in itself. Thus, as demonstrative evidence, photographs are illustrative like a chart or diagram. The probative value comes from the testimony providing the foundation establishing that the photographs are indeed an accurate representation.

**Empirical Studies**

Empirical research investigating the biasing effect of gruesome photographs on jurors’ judgments has been scant and equivocal in its conclusions. To date, there have been four studies investigating the direct impact of gruesome photographic or videotape evidence on jurors’ decisions. They will be discussed in detail in the next section. A fifth, related study that investigated the impact of a videotaped recreation of a child drowning on jurors’ judgments will also be discussed, as the stimulus and hypothesized underlying mechanism are similar to those invoked with gruesome photographic evidence. Interestingly, only two of these studies investigated the impact of graphic photographs on jurors’ guilt verdicts in a criminal trial,
whereas the rest examined the effect of graphic imagery on jurors’ judgments and damage awards in a civil trial. Most of the controversy concerning the admissibility of gruesome photographic evidence centers around the potential for the photographs to inflame the jury in the guilt as opposed to the sentencing phase of a criminal trial.

The earliest study investigated the impact of photographs of a victim’s injuries in a civil case. Oliver and Griffit (1976) posited that evidence of this manner would provoke a strong emotional response in the jury and consequently, would bias their decisions. Oliver and Griffit compared the judgments of mock jurors who viewed four color slides depicting different views of a badly cut hand, including one after infection had set in, to mock jurors who read the trial transcript without viewing the slides. Participants read one of two cases, both involving a farm worker’s injury while working on the job. The farm worker was suing the farm owner for maintaining the equipment, which caused the injury, improperly. Of the two cases, one indicated that while the injury required surgery, no permanent damage to the hand occurred and the farm worker’s hand eventually made a full recovery. The other case indicated that in spite of extensive surgery to save the hand, the farm worker eventually had to have the hand amputated and was never able to return to his occupation. The severity of the injury was crossed with the presence or absence of the slides. Participants in the slides condition were interrupted after they read the first page of the transcript and were shown the four slides. After reading the transcript, the participants made four judgments in the following order: rated the defendant’s “guilt” on the charge of negligence (a rating scale was used instead of a dichotomous verdict because it was assumed that most of the participants would find the defendant guilty of negligence), awarded
damages assuming the defendant was negligent, rated the fault of the plaintiff, and rated the amount of damages they felt the plaintiff actually deserved.\textsuperscript{1}

Of the four judgments made, the results indicated a main effect for the amount of damages awarded only (since the two cases differed in severity and requested amounts, the proportion of requested damages was used as the dependent measure). Participants who viewed the injury slides awarded a greater proportion of the requested damages than did participants who did not view the slides. No other main effects or interactions were significant. Oliver and Griffit (1976) concluded that evidence of this manner can have a biasing impact on jurors’ decisions, but were surprised no other effects were found. However, their only reliable effect may have been an artifact because all participants awarded damages regardless of how negligent they found the defendant. In Oliver and Griffit’s defense, both groups found the defendant to be more negligent than not, with average ratings of negligence for the slides (2.42) and no-slides groups (2.58) falling around the low end of the scale (i.e., from 1 to 7, with 1 being “definitely guilty” and 7 being “definitely not guilty”). In interpreting their results, Oliver and Griffit emphasized the effect was driven by the emotionally arousing aspects of the slides. However, no measure was taken to determine if there were differences in the reported arousal between the slides and no-slides groups.

Whalen and Blanchard (1982) also manipulated the introduction of photographic evidence in a simulated civil trial. The case centered around a civil suit brought by the parents of a 10 year-old boy who entered an abandoned building after school and fell through the floor.

\textsuperscript{1}Oliver and Griffit (1976) used the inappropriate term guilty, as opposed to liable, in their study even though they were investigating the effects of gruesome evidence in a civil trial.
They claimed that the owner of the building was negligent in preventing trespassing, since the building could be considered an “attractive nuisance” (i.e., enticing to young children). One-third of the participants were presented with a color photograph of the boy sprawled on the basement floor, face-down with his leg bent at an unnatural angle, suggesting a broken leg. In addition, there was a pool of blood next to the boy due to cuts he sustained on his arm and hand. One-third of the participants viewed the same photograph except that it was black and white, and one-third were presented with the transcript only. Participants given the photographs were allowed to view them as they read the trial transcript.

Whalen and Blanchard (1982) manipulated two other variables in conjunction with the photographic evidence: severity of the child’s injury and the level of blame of the defendant. The severity of the child’s injury was manipulated in terms of the permanence of the injuries: Half of the participants were told that the injuries were temporary and half were told that the boy may suffer permanent blindness. The defendant’s blame was varied by the barriers he had in place to restrict trespassers from entering the building. In the low blame condition, participants read that the owner had put up a 6 foot fence, had numerous no trespassing signs, and had boarded up most of the windows. In the moderate and high blame conditions, participants read that the defendant put up relatively less effective barriers.

After reading the transcript, participants filled out a series of scales indicating the extent they perceived the defendant to blame for the injury, the extent they felt the child was responsible for his own injury, and how severe they felt the child’s injuries were. Also, participants indicated
the amount of damages that they would award the plaintiff on an 11-point scale ranging from zero to a maximum of $100,000 in $10,000 increments.²

Whalen and Blanchard (1982) found that the photographic evidence interacted with the severity of the injuries and culpability of the defendant. Participants who viewed color photographs gave higher monetary awards than participants who viewed either black-and-white photographs or no photographs but only when the severity of the injuries was high and the defendant was highly blameworthy. No other effects of the photographs were found. In explaining their findings, Whalen and Blanchard appealed to the emotional arousal explanation as offered by Oliver and Griffit (1972) as the basis for their findings. They acknowledged that the effect which Oliver and Griffit found may be due to the greater amount of information about the victim’s injuries that was provided in the photograph. While they did not obtain any data indicating the arousal level of their participants, Whalen and Blanchard argued that the information explanation is untenable because the black and white photograph should convey just as much information as to the extent of the boy’s injuries as the color photograph, yet the color photograph produced greater damage awards than the black and white photograph when the

²These measurements do not reflect the judgments that actual jurors would be making in a real trial. In general, most simulation research matches dependent measures and actual jurors’ judgments. However, a continuous rating of culpability is often employed in addition to a dichotomous verdict to aid in the analyses of the effects. Simulation research employing undergraduate students as participants and utilizing dependent measures which may not be an exact match to the way jurors make their decisions has been classified as Stage One research by Diamond (1997). Stage One research typically involves easy to administer methods (e.g., using relatively artificial trial stimuli) in initial investigations of potential factors that may influence juror decision making. From Stage One research, interesting findings can be pursued with more “realistic” trial simulations.
injuries were severe and the defendant was highly culpable. Thus, they argued that the color photograph exerted its effect due to the emotional response it produced in the participants.

The effects of color versus black-and-white photographs were also investigated by Douglas, et al. (1997). Participants played the role of jurors in a murder trial. They read a transcript in which the defendant was charged in the stabbing death of his ex-girlfriend. One-third of the participants viewed color photographs of a real murder victim. Another third viewed the same photographs but in black and white. The remaining third of the participants were in the no-photograph control condition. The graphic photographs were part of a series of exhibited evidence (i.e., among other photographs depicting the victim’s apartment, the murder weapon, the forced entry of the apartment door, the murder weapon, and a graduation photograph of the victim). Participants were prompted in the transcript when to view the photographs. The exhibit of graphic photographs included three separate pictures: two close-up shots of the face and shoulder and a shot of the upper torso, all of which depicted bloody stab wounds. Participants in the control condition did not view any of the autopsy photographs, only viewing the other photographs of the exhibited evidence.

After reading the trial transcript and examining the photographic evidence, the participants filled out a verdict questionnaire. Participants determined whether the defendant was not guilty, guilty of first-degree murder, guilty of second-degree murder, or guilty of manslaughter. They also indicated on a 10 point scale the extent to which they felt the defendant was guilty. Assuming the defendant was guilty, participants were asked to recommend a sentence length and a period of time that the defendant should be ineligible for parole. After completing the verdict questionnaire, participants filled out a complementary questionnaire
which asked them to indicate their emotional reactions to the photographs, whether they believed they were fair and impartial while considering this case, and how important they felt the graphic photographs were in determining their verdicts and sentences.

Douglas et al. (1997) found that participants exposed to the autopsy photographs, regardless if black-and-white (50%) or color (57.5%), were roughly twice as likely to find the defendant guilty of any charge as participants who were not exposed to the photographs (27.5%). The two graphic photograph conditions did not differ from one another. Participants, regardless of which photograph condition they were in, indicated that the photographs should have little impact on their verdicts, although participants in the color condition indicated that the photographs had an impact on their verdicts to a significantly greater degree than participants in the control condition. Additionally, when asked to make a yes/no decision whether the photographs affected their verdicts, there were no differences between the groups. Each group felt that the photographs did not and should not affect their verdicts. This is an interesting finding because factual information was held constant across the groups. The trial transcript contained testimony describing the victim’s wounds. The photographs merely gave a visual representation of these wounds (i.e., demonstrative evidence).

Investigating the emotional responses of the different groups of participants, those who viewed the graphic pictures, regardless if black-and-white or color, were more likely to say they felt anxious, anguished, disturbed, and shocked compared to those who did not view the pictures. On a more global assessment, those who viewed the graphic pictures also indicated they were more severely affected emotionally by the trial than those who did not view the photographs. Finally, a greater percentage of participants who viewed the graphic photographs in color (50%)
reported feeling physical reactions (e.g., sweaty palms, difficulty concentrating, upset stomach) than those who viewed the black-and-white (26.8%) photographs, followed by the control participants (10.3%). In a regression analysis to determine whether emotional reactions to the trial evidence predicted guilty verdicts, Douglas et al. (1997) found that the greater a participant indicated feeling sad, vengeful, outraged, shocked and anxious, the more culpable the participant perceived the defendant to be in committing the murder.

Based on their findings, Douglas et al. (1997) concluded that graphic photographs can prejudice the jury. Douglas et al. pointed out, “people’s verdicts may be impacted to a greater degree than the law would suspect, and second, that because participants indicated that the victim autopsy photographs should not and did not affect their verdicts, it appears that people may be unaware of their biases.” This finding is consistent with other areas of mock juror research that have indicated that mock jurors’ decisions may be influenced by certain variables even though their self-reports fail to indicate any awareness that they have been influenced (Bornstein, 1998; Zickafoose & Bornstein, 1999). Thus, like other biasing effects of juror decision-making (e.g., pre-trial publicity–Kramer, Kerr & Carroll, 1990; inadmissable evidence--Kassin & Sommers, 1997; Thompson, Fong, & Rosenhan, 1981; Wolf & Montgomery, 1977), judicial admonishments would likely have no impact in helping jurors set aside their biases, biases over which jurors appear to have no control.

In a related study, Kassin and Garfield (1991) examined the potentially prejudicial effects of videotaped crime scenes in a murder trial much as Douglas et al. (1997) investigated the effects of gruesome photographic evidence. In particular, Kassin and Garfield were interested in whether jurors who viewed videotaped crime scene evidence would render more guilty verdicts
than jurors who did not view the crime scene evidence (a third condition was included to
investigate the generalized effects of crime scene evidence but will not be discussed in detail as it
does not relate to proposed studies greatly). Additionally, Kassin and Garfield also considered
how individual differences may mediate the impact of videotaped crime scene evidence. They
administered the Juror Bias Scale (JBS) and classified each subject as either prosecution-biased
or defense-biased. Finally, they sought to determine whether viewing crime scene evidence
would have any effects on the perception of a subsequent trial.

Participants were tested in two sessions. In the first, participants completed the JBS, read the trial transcript, and filled out a verdict questionnaire. The case concerned a dispute between two men which resulted in one fatally stabbing the other. Before reading the transcript, one-third of the participants were shown the crime scene videotape and were told that the video depicted the victim of the crime for the case they would be considering (relevant videotape). One-third were shown the same videotape but were told that the videotape depicted a scene from a similar crime in another city (nonrelevant videotape). The videotape was the same for both conditions and showed a close-up of the bloodied body of a man who was stabbed to death. The last third of the participants were not shown the videotape (control).

Participants filled out a verdict questionnaire individually. The verdict questionnaire required participants to determine whether the defendant was guilty of first-degree murder and how confident they were in their verdict. Kassin and Garfield argued that guilty verdicts are a dual function of the perceived probability that the defendant committed the crime and the standard of proof required to convict the defendant of the crime. Thus, two questions were designed to estimate these measures. Participants were also asked to rate how graphic and
violent they found the details of the crime. Finally, participants were asked to make a sentencing recommendation assuming the defendant was guilty.

While Kassin and Garfield found that participants who viewed the crime scene videotape felt the crime was more graphic than participants who did not view the videotape evidence, all groups rated the crime as equally violent and there were no significant differences in verdicts across the groups. The failure to find an effect on verdicts might have been due to an unbalanced trial, representing a weak case against the defendant. An analysis of the probability of commission estimates revealed a two-way interaction between juror classification according to the JBS and videotape condition. Participants who were prosecution biased were most likely to believe the defendant committed the crime but only when they viewed the relevant videotape. The videotape evidence exerted a main effect on the standard of proof estimates. Participants who viewed the relevant video required lower standards of proof to convict. However, the same two-way interaction which was found with probability of commission estimates indicated that the effect was driven by the prosecution-biased participants.

Kassin and Garfield (1991) emphasized in their findings that even though videotape evidence of a crime scene may contain some probative value, its prejudicial effects warrant concern. Although no direct effects on verdicts were found, participants who viewed the gruesome videotapes gave lower thresholds to convict. Kassin and Garfield suggested that the failure to find any effects on verdicts may be due to the weak case against the defendant (overall, only 21% of participants found the defendant guilty). Kassin and Garfield provided some provocative results for the potentially prejudicial nature of this type of evidence both on decisions concerning the trial but also on more general perceptions of crime. In terms of the
prejudicial nature of crime scene videotapes, Kassin and Garfield concluded, “it seems that once jurors are exposed to crime scene videotapes, they abandon their demand for proof beyond a reasonable doubt, and report a willingness to settle for less evidence in order to convict” (p. 1469).

A quality which distinguishes videotape evidence from photographic evidence is its potential use as a medium of theory as opposed to fact (Hennes, 1994). Videotape recreations are becoming more commonplace as the technology becomes more available and affordable. Recreations which seek to portray emotionally upsetting and graphic events are relevant to the broader topic of the impact of gruesome evidence on jurors’ decisions. One empirical study has addressed this concern. Fishfader, Howells, Katz, & Teresi (1996) examined the effects of video scene recreations on jurors’ decisions in a civil trial. Video scene recreations attempt to reenact the events that are in dispute in a case. While they are intended to be based on factual evidence from the case, they often allow some leeway for differential interpretations depending on which counsel is presenting the evidence (Hennes, 1994). Participants were presented with one of three trial formats: print transcript only, live testimony, or live testimony and video scene recreation. The case concerned a wrongful death claim brought by the parents of the victim, a 12 year-old girl, against a manufacturer of pools and spas. The victim’s hair became entangled in the spa’s suction cover and she drowned.

Participants who viewed the live testimony were shown a videotape containing the same information as was contained in the print transcript but acted out in a courtroom setting. Participants who viewed the live testimony plus the recreation videotape were shown the same live testimony with the addition of a video scene recreation of the victim drowning in the pool,
showing how her hair became entangled in the pool’s suction cover and rescue attempts at resuscitating her. Before the presentation of the trial materials, participants were administered the Profile of Mood States (POMS) questionnaire. Fishfader et al. (1996) hypothesized that the video scene recreation would provoke a stronger emotional reaction than the other two conditions. The POMS questionnaire was given again after the participants viewed the trial materials. Also participants were tested for factual retention of the evidence by a cued-recall test. Finally, participants indicated judgments of liability (i.e., as a percentage estimate) for both the defendant and plaintiff and determined damage awards.

The results failed to indicate any effects of trial presentation on liability estimates, damage awards, or factual retention of the evidence. The only significant effect was that participants who either viewed the live testimony or live testimony plus video scene recreation had a stronger emotional reaction to the evidence than participants who read the trial transcript based on differences between the pre- and post-questionnaire POMS measures.

The empirical studies reviewed reveal equivocal findings regarding the potential for graphic evidence to prejudice jurors. The most provocative findings of juror bias as the result of viewing graphic evidence comes from the study by Douglas et al. (1997). In that study, a direct effect on jurors’ verdicts was found. Jurors who viewed gruesome photographic evidence were twice as likely to convict the defendant as jurors who did not view the gruesome photographic evidence. However, there is one caveat in interpreting the results of Douglas et al. Mock jurors could find the defendant guilty of murder, guilty of a lesser charge, or not guilty. Thus, it is difficult to determine whether the same pattern of results would be expected if jurors have to decide whether the defendant is guilty or not guilty of murder only. The argument that graphic
evidence prejudices jurors’ decisions is dependent on its capacity to affect jurors’ guilt (or liability) verdicts.

The remaining four studies provide rather weak evidence for the argument that graphic evidence prejudices jurors’ judgments. Oliver and Griffit (1976) and Whalen and Blanchard (1982) indicated that graphic photographic evidence can affect jurors’ damage awards but failed to indicate any direct effects on jurors’ judgments of liability in a civil trial. Likewise, Kassin and Garfield (1991) found an effect on jurors’ standards of proof estimates but failed to find any direct effect on jurors’ verdicts. In the same vein, Fishfader et al. (1996) failed to indicate any direct effect of a crime scene recreation on jurors’ judgments of liability in a civil trial but did indicate that jurors who saw the recreation were more emotionally affected than jurors who did not see the recreation. However, one potential alternative explanation for the null effects of Oliver and Griffit and Kassin and Garfield may have been because of the lack of variability in verdicts.

The weak effects of graphic evidence for four of the five empirical studies is puzzling in light of the provocative findings of Douglas et al. (1997). Given such equivocal findings, replication of the results of Douglas et al. is necessary before any clearer picture of the effects of graphic evidence can be ascertained. Although there are only five empirical studies from which to draw a greater picture of the effects of graphic evidence on jurors’ decisions, the substantive differences between the studies may obscure any trend in the combined, albeit loosely-related, body of research. Two of the studies examined the effects of graphic evidence in criminal trials, whereas three investigated the impact of graphic evidence in civil trials. Although Douglas et al. and Kassin and Garfield (1991) conducted manipulation checks on the graphic stimuli used, the
dimensions used to assess the manipulation’s effects were different across the studies. Appealing to the emotional arousal explanation, Douglas et al. found that the participants who viewed the autopsy photographs, regardless whether color or black and white, were affected more emotionally than were those who did not see the photographs. Kassin and Garfield found that participants who viewed the relevant video crime scene considered the trial more graphic than those who did not view the video. However, all participants considered the trial evidence equally violent regardless of the condition they were in. Furthermore, participants’ perceptions of how graphic the trial appeared varied depending on whether they were told the video crime scene was directly related to the trial at hand (i.e., the relevant video condition) or not (i.e., nonrelevant video condition). Thus, differences in measuring the strength of the manipulation may have also contributed to the differences in results. The other three studies failed to conduct manipulation checks. Finally, weak or strong cases against the defendant may have contributed to a lack direct effects on participants’ verdicts.

Underlying Mechanisms

Besides the need to replicate the effect that Douglas et al. (1997) found concerning gruesome photographs, another avenue for research would be to investigate potential underlying mechanisms for such an effect. The most promising underlying bases for the effect of gruesome photographs are vividness and mood/emotion effects. Although the majority of the studies on the gruesome photograph phenomenon have relied on an emotion based explanation for any effects—that gruesome photographs produce an emotional reaction in jurors which, in turn, influences their decisions—Douglas et al. acknowledged that the relative vividness of a photographic representation may underlie said effects. Furthermore, of the few studies that have
investigated the potentially biasing effects of gruesome evidence, only Douglas et al. and Fishfader et al. (1996) measured emotional responses of the participants. However, these measures were arguably indirect as they were self-report measures and not physiological measures.

**Vividness**

Bell and Loftus (1985) argued that information presented in a vivid manner may be given more weight than information presented in a pallid manner during a trial. Nisbett and Ross (1980) defined vivid information as information which is “likely to attract and hold our attention and to excite the imagination to the extent that it is (a) emotionally interesting, (b) concrete and imagery-provoking, and (c) proximate in a sensory, temporal, or spatial way.” In general, the effect of vivid information has been investigated by manipulating the level of detail. Thus, in a series of experiments, Bell and Loftus (1988, 1989) manipulated vividness by varying the level of detail in eyewitness testimony. They found that the addition of details influenced jurors more compared to eyewitness testimony that contained relatively fewer details. This was the case even though the added details contained no additional probative value. Jurors inferred that eyewitnesses who recalled more details were more credible and accurate than eyewitnesses who did not recall the extra details. In addition, detailed testimony had greater effects on verdicts than testimony lacking the details. When the prosecution’s eyewitness account was highly detailed, mock jurors were more likely to find the defendant guilty than if the eyewitness account contained few details.

Potentially the graphic, pictorial representation of a victim’s wounds influences jurors’ decisions more than a verbal description (e.g., coroner’s testimony) would because of its
inherently vivid qualities—that is, the level and type of detail would likely differ greatly between gruesome photographs and oral/verbal testimony. In general, gruesome photographs of a murder victim would contain many more details and depict much more emotionally upsetting imagery than a detached and clinical account likely from a coroner or medical examiner’s testimony. However, the vividness effect that a gruesome picture would produce is likely to be different than would relative levels of detailed eyewitness testimony of the studies of Bell and Loftus (1988, 1989). Bell and Loftus (1989) found that the vividness effect of detailed eyewitness testimony was mediated by credibility inferences of jurors. Detailed testimony was viewed as more credible than less detailed testimony. With gruesome photographic evidence, vividness and emotional arousal are likely to covary—that is, photographs will be more detailed and emotionally provocative than verbal testimony.

While any effect of the relative vividness of gruesome photographic evidence is unlikely to be mediated by inferences about credibility, jurors may pay more attention to and retain better the gory images because of its relative vividness. Similar to the research of Bell and Loftus (1988, 1989), Reyes, Thompson, and Bower (1980) manipulated the relative vividness of prosecution and defense arguments by adding additional details which did not alter the gist of the argument. Vivid prosecution arguments resulted in significantly more guilty verdicts than did vivid defense arguments. In addition, they found that this vividness effect was mediated by the differential availability in memory of the vivid arguments. Thus, any biasing effect of gory photographic evidence could be the result of differing availability in memory of trial evidence. In particular, gory photographs may be relatively more available when jurors are deciding verdicts, presumably to the detriment of the defense.
Wilson, Northcraft, & Neale (1989) also showed that vividness could affect jurors judgments. Wilson et al. manipulated the vividness of a litigant’s claims and information competition in a mock juror study. They manipulated vividness by making statements by one of the parties either vivid or pallid by the phrasing and use of irrelevant details (e.g., “spiderweb of cracks” vs. “network of cracks”). They found that vividness affected verdicts and damage awards in favor of the side utilizing vivid arguments but only when information competition was high (i.e., by varying the amount of information the participants were given over time). Thus, to the extent that gruesome evidence is vivid, the findings of Wilson et al. suggest that gruesome evidence could influence jurors’ decisions since a relatively comprehensive trial is likely to fall within the definition of “high information competition.” There is one caveat to this prediction, however. Wilson et al. were examining the effects of vividness on mock jurors’ decisions in a civil trial. To what extent a criminal trial, with a higher standard of proof, would moderate any effects of vividness is unknown.

Mood/emotion Effects

Most of the empirical studies to date have suggested that jurors’ emotional reaction to gruesome photographs may be the underlying mechanism for bias in their judgments, although few of the studies specify how emotional arousal affects jurors’ cognitive functioning. In addition, Posner (2001) has argued that gory photographs could evoke angry and outraged responses from jurors and could result in a greater probability of guilty or liable verdicts as well as the selection of more punitive sentences or the awarding of higher damages. However, Posner also did not indicate exactly why anger or outrage would affect jurors’ decisions. Nonetheless, theoretical support exists for the idea that emotional reactions could bias jurors’ judgments.
Graphic photographs could produce a negative mood in jurors. This negative mood in turn could bias jurors’ perceptions and evaluations of later evidence by focusing their attention on information congruent with their mood. A large body of research on mood congruency and social judgment suggests that emotions can affect judgments (Bower, 1991; Clark & Isen, 1982; Clore, Schwartz, & Conway, 1994; Forgas, 1994, 1995; Isen, 1984; Paulhus & Lim, 1994).

Furthermore, a comprehensive model of mood effects designed to address the divergent results in the empirical literature also lends support to the idea that emotional arousal can have strong effects on jurors’ decisions. Forgas’s (1994, 1995) Affect Infusion Model (AIM) posits that mood congruence effects are most likely in substantive processing. Forgas describes substantive processing as “a judgment [which] requires judges to select, learn, and interpret novel information about a target and relate this information to preexisting knowledge structures” (p. 47). Substantive processing is most likely to occur when the target is complex and atypical, the judge has adequate cognitive resources, and the accuracy of the judgment is extremely important, often because of explicit pressures. The AIM model posits that substantive processing is likely to produce an affect priming effect. In addition, the AIM predicts that the more extensive and elaborate the processing strategy, the more influence that affect will have on judgments. The types of judgments that jurors are required to make fall well within the definition of substantive processing as outlined by the AIM. Given these processing requirements, the AIM, applied to juror decision-making, predicts that mood congruence effects would be likely.

Recent shifts in mood research have focused on specific emotions. Specifically, researchers are beginning to determine whether two negative emotions, sadness and anger, produce comparable effects on information processing (Bodenhausen, Sheppard, and Kramer,
1994; Keltner, Ellsworth, & Edwards, 1993; Lerner, Goldberg, & Tetlock, 1998). Keltner et al. questioned whether the specific emotions of sadness and anger, which can both be considered negative affect, have the same effects on social perception. In particular, they hypothesized that people who felt sad would believe that situational factors are more probable as the causal agent, whereas people who felt angry would attribute more responsibility to other people than situational factors as the causal agent. A series of experiments confirmed the authors’ initial hypotheses. Participants who were induced into a sad mood judged situationally caused negative events as more likely to occur than did participants induced into an angry mood. Conversely, anger-induced participants felt human caused negative events were more likely to occur than did sadness-induced participants.

Similarly, Bodenhausen et al. (1994) investigated the impact of sadness and anger on social judgments. In a series of studies, they found that angry participants, compared to sad and neutral participants, were more likely to use heuristic cues in various social judgment tasks. For example, anger-induced participants were more likely to make stereotypical judgments than sadness-induced or neutral participants. Although Bodenhausen et al. recognized that it would be difficult to ascertain why angry participants were more likely to rely on heuristic cues than sad or neutral participants, one potential explanation is that anger reduces one’s motivation for careful and systematic processing of judgment-relevant information.

Utilizing simple tort cases (i.e., vignettes of cases involving damages but not within the formal context of a trial), Lerner et al. (1998) found evidence supporting the hypothesis that anger-induced participants are more likely to use simple processing strategies in a social judgment task than emotion-neutral participants. In judging how much to punish negligent actors
in various vignettes, angry participants considered mitigating information less than emotion-neutral participants, although this effect was moderated by whether the participants were made accountable for their decisions (i.e., if the reasoning behind their decisions would be assessed by an “expert”). In addition, angry participants were more likely to impose harsher punishment than emotion-neutral participants.

In the present research, two experiments were conducted in order to expand on the previous findings of gruesome evidence on jurors’ decisions. The first experiment had two purposes: to test whether verbal and pictorial evidence that vary in gruesomeness would produce similar effects on mock jurors’ verdicts and to examine whether gruesome evidence would provoke stronger emotional reactions and would be perceived more vivid than non-gruesome evidence. The second experiment was designed to address directly whether emotional arousal independent of the presentation of gruesome photographic evidence would produce the same effect as gory photographs. Although teasing apart the two underlying mechanisms appears difficult to accomplish, the two experiments were an attempt to explicate further the potential mediators of the biasing effect of gruesome photographs. In addition, the two experiments expanded on previous research by including measures designed to assess jurors’ perceptions of the vividness of the manipulated variables. Although two studies (Douglas et al., 1993; Fishfader et al. 1996) obtained measures concerning the impact of gory photographs on participants emotional response, none have measured perceptions of vividness.
Experiment 1

One question not addressed by the extant empirical work is whether there is some quality inherent to gruesome photographs that biases jurors’ judgments. In other words, would a comparable verbal account produce the same effect on jurors’ judgments as would a gruesome photograph? The first experiment was designed to address whether verbal testimony that varies in gruesome detail can bias jurors’ decisions as much as graphic photographs. In a simulated murder trial, expert testimony from a medical examiner was manipulated with two levels: a relatively less gruesome account and a relatively more gruesome account. The two accounts varied in the amount of graphic detail provided by the examiner, yet did not differ in the amount of factual information provided. These conditions were crossed factorially with three levels of photographic evidence: control photographs, low gruesome photographs, and highly gruesome photographs. The control photographs showed no graphic imagery, instead depicting other aspects of the trial evidence: broken basement window, for example. The low gruesome photographs differed from the highly gruesome photographs in that they depicted relatively less bloody imagery than the highly gruesome photographs.

Although teasing apart the relative contributions of vividness and emotional arousal on the potentially biasing effects of gruesome evidence would be difficult to accomplish, intuitively it would appear that manipulating the testimony of the medical examiner is more likely to be manipulating the relative vividness of the testimony than its emotional arousal. In contrast, manipulating the relative gruesomeness of photographic evidence would likely manipulate the level of emotional arousal more than vividness between conditions. In either case, vividness and emotional arousal are likely to covary. Measures were included in Experiment 1 to assess
participants’ perception of the relative vividness of the manipulated variables and their level of emotional arousal as a result of viewing and hearing the photographs and testimony.

If varying the amount of gruesome details in the examiner’s testimony results in more guilty verdicts, then possibly one of the factors underlying the potentially prejudicial effect of graphic photographs is the relative amount of gruesome detail such pictures reveal. Potentially, highly detailed evidence regarding the extent of the victim’s injuries will be retained better and stand out in contrast to the other trial evidence. Thus, jurors may attribute more weight to this evidence and be unduly influenced in their decisions. If this pattern of results holds true, it would lend support to the idea that vividness mediates the biasing effects of gruesome evidence.

Based on the findings of Douglas et al. (1997), I hypothesized that there would be a main effect of photographs. Participants who view the control photographs should be least likely to convict the defendant, whereas participants who view the highly gruesome photographs should be most likely to convict the defendant with participants viewing the low gruesome photographs intermediate. In addition, this pattern should also be found on the continuous measures of guilt (i.e., the combined verdict and confidence score, and likelihood of commission estimates). Based on Kassin and Garfield’s (1991) results, participants who view the highly gruesome photographs should have lower conviction thresholds than participants who view the control photographs, with participants viewing the low gruesome photographs intermediate. Furthermore, highly gruesome photographs should produce a greater emotional reaction in the participants than low gruesome photographs or control photographs. Based on the studies of Bell and Loftus (1988, 1989) and Reyes et al. (1980), it is hypothesized that there will be a main effect for expert testimony. The highly gruesome account, which will contain additional gory details, will result
in more guilty verdicts than the less gruesome account. No interaction between the photographic evidence and expert testimony was predicted.

**Method**

**Participants**

One-hundred thirty undergraduate psychology students at the University of Nebraska-Lincoln participated for extra credit to be applied to their psychology courses. Participants were randomly assigned to one of six conditions in a 2 (expert testimony: low gruesome vs. highly gruesome) x 3 (photographs: control, low gruesome, and highly gruesome) factorial design.

The mean age of the participants was 20 years old. The sample consisted of 41% males and 59% females. Five percent of the sample indicated that they had been called to serve on a jury. However, none of the participants indicated ever actually serving on a jury.

**Materials**

The testimony and proceedings of a capital murder trial were generated as the primary stimulus materials in which the manipulated variables were embedded. The testimony and proceedings of the trial were recorded on audiotape with different actors playing the various roles. The audiotape version of the trial lasted 35-minutes. The circumstances of the case were fabricated so as to be consistent with the gruesome photographs which were obtained from a real capital murder trial. In the case the defendant, Donald, is accused of first-degree murder and first-degree feticide in the death of his ex-wife, Andrea, and her unborn child. The prosecution argues that the defendant has murdered his wife for two reasons: jealousy over his ex-wife’s recent relationship with another man and the added expense of child support for a child he is unsure of being his own. The defense argues that there is not enough evidence to suggest that
Donald committed the murder. Evidence at the crime scene indicates the murder may be the result of a burglary attempt gone wrong. In particular, trial testimony indicates that the basement window of Andrea’s house was found broken. However, testimony from Andrea’s mother and the police officer who arrived first at the crime scene revealed that nothing of value appeared to be missing. The purpose of the conflicting evidence is to insure that the defendant’s guilt is ambiguous, allowing for greater variability in participants’ verdicts due to any effects of the manipulated variables. Pilot testing revealed that the trial transcript alone produces roughly 50% guilty and 50% not guilty verdicts on both charges.³

The trial proceedings consisted of the judge’s opening instructions, the prosecution’s and defense’s opening arguments, testimony of the prosecution and defense witnesses, closing arguments, and finally, the judge’s closing instructions. The witnesses who testified for the prosecution included a professional counselor, the victim’s mother, the victim’s neighbor, the police officer who was the first at the scene of the crime, and the state pathologist who conducted the autopsy of the victim. The defense called the defendant’s neighbor and the leader of Donald's anger management group. The judge’s closing instructions included the standard of proof, a reminder that verdicts are to be based on evidence presented at trial, and descriptions of the two charges brought against the defendant as well as the qualifications that must be met in

³Pilot testing was conducted at Louisiana State University. Results from the two experiments presented here reveal an overall conviction rate of about 35% from the sample of University of Nebraska-Lincoln students. Although the overall conviction rate obtained from the University of Nebraska-Lincoln students is lower than the rate obtained from Louisiana State University, the conviction rate was still at a level that would have insured enough variability to detect differences between conditions of the manipulated variables had there been actual differences.
order to find the defendant guilty of each of the two charges. Furthermore, as this case involves a capital offense the trial was bifurcated (i.e., separate guilt and sentencing phases). Thus, judge’s instructions regarding the consideration of aggravating and mitigating circumstances, prosecution arguments in favor of the death penalty, and defense arguments against the death penalty were also part of the trial proceedings. The number of aggravating and mitigating circumstances argued for by the prosecution and defense, respectively, were controlled; each side justified its position with two circumstances. Specifically, the prosecution argued that Donald Watson should be sentenced to death because of the heinousness of the crime and because he gravely endangered the life of more than one person, whereas the defense argued that the death sentence was not warranted because the defendant had no history of violent crime and committed the murder because of an extreme emotional disturbance.

Two variables were manipulated in Experiment 1: the level of gruesomeness of the photographic evidence and the level of gruesomeness of the state pathologist’s verbal testimony. Eight photographs of an actual murder victim were used for the gruesome photograph conditions. Each photograph condition was comprised of four photographs. In general, the gruesome photographs depicted a woman with multiple gunshot wounds, some at the crime scene and some during autopsy. The photographs were acquired from trial consulting research on an actual murder trial that took place in Louisiana. As part of this consulting research, jurors were presented with several photographs of the murder victim in order to ascertain their emotional responses. Based on these data, photographs were selected for the two levels of gruesome

---

4 For example, in order to convict the defendant of first-degree murder a juror must find that the defendant killed the victim; that he defendant acted with specific intent to kill or inflict great bodily harm; and that the defendant acted with premeditation and deliberation to kill.
photographic evidence. Descriptions of the photographs for each level of gruesomeness are as follows

**Low Gruesome Photographs**
1. The photograph depicts a close up of a cleaned-up gunshot wound to the abdomen. The coroner’s hand is visible, holding a pen and indicating the wound.
2. The photograph depicts a cleaned-up bullet wound to the victim’s side. There is very little blood visible.
3. The photograph depicts a gunshot wound on the victim’s buttocks. The wound is very clean with little blood.
4. The photograph shows two wounds, an entry and exit wound, to the victim’s wrist. There is little blood present.

**Highly Gruesome Photographs**
1. The photograph shows the victim face up on the autopsy table. Her face is covered in dark red blood. The coroner’s hand is present in the photograph holding a ruler.
2. The photograph shows the victim face up on the autopsy table. Only a quarter of her face is visible, and there is little blood present. There are two apparent bullet wounds, ostensibly an entry wound and exit wound. The coroner is holding a metal wire which shows the trajectory of the bullet.
3. The photograph shows the victim face up on the autopsy table before being cleaned up. There is a profuse amount of blood on the victim’s face and clothes. The victim’s face has a vacant look.
4. The photograph shows the victim face down. A gunshot exit wound is visible and there is a lot of blood running down from the back of the head and pooling down by her face, in addition to fleshy matter.

The photographs in the control condition were consistent with the trial evidence but contained no gruesome images. For example, the photographs included one of the victim when she was alive, and three others that depicted physical evidence from the crime scene: the broken basement window, the broken front door, and the stairs leading up from the basement. These photographs closely approximate the additional photographic evidence that Douglas et al. (1997) used in their study.

Similarly, the testimony of the state pathologist varied according to condition in the amount of gruesome detail. Both versions of the state pathologist’s testimony provided the same
Thirty-three participants were presented with both versions (High vs. Low Gruesomeness) of the state pathologist’s testimony (counter-balanced across participants) as a written narrative and rated each in terms of disgust, graphicness, repulsiveness, and gruesomeness. A pilot study was conducted in order to determine whether the two versions of the state pathologist’s testimony varied in terms of perceived gruesomeness. The results indicated that the highly gruesome expert testimony was rated as more gruesome, graphic, repulsive, and disgusting than the low gruesome expert testimony on scales from 1 - 7, \( t_s (33) = 5.11, 5.01, 5.69, \text{ and } 5.63 \), respectively, \( ps < .05 \).

The Profile of Mood States (POMS) questionnaire was used to measure participants’ emotional reactions to the trial stimuli. The POMS questionnaire consists of 65 items, each item being a mood-related word or group of words (McNair, Lorr, & Droppleman, 1992). Examples of items on the POMS include: friendly, angry, sorry for things done, and uncertain about things, among others. The POMS can be used to obtain an overall, global mood disturbance measure or it can be broken down into six subscales: tension-anxiety, depression-dejection, anger-hostility, vigor, fatigue, and confusion. Thus, various items of the POMS are designed to assess measures represented by the different subscales. For the present purposes only the tension-anxiety, depression-dejection, and anger-hostility subscales (i.e., 35 items out of the total of 65) were scored. Although the POMS has been validated using instructions that ask the participant to rate each item based on “how you have been feeling during the past week including today,” instructions that ask participants to make their ratings based on how they feel right now have also

---

3Thirty-three participants were presented with both versions (High vs. Low Gruesomeness) of the state pathologist’s testimony (counter-balanced across participants) as a written narrative and rated each in terms of disgust, graphicness, repulsiveness, and gruesomeness.
been found to yield valid measures of the different mood states (McNair et al., 1992). As such, the current research utilized the “right now” version of the instructions as I was concerned with immediate ratings of participants’ emotional reactions. Thus, when the POMS was administered, participants were asked to rate the items of the questionnaire based on how they felt “right now” using a scale from 0 to 5, 0 indicating not at all and 5 indicating extremely. In addition, four items of interest were added to the end of the POMS questionnaire. They were designed to measure perceptions of gruesomeness: nauseated, disgusted, revolted, and sickened. These items were embedded within 6 filler, mood-related items.

The main dependent measures were collected in three packets: demographic and voir dire questions in the pre-trial questionnaire, verdict, verdict-related, and sentencing questions in the verdict questionnaire, and finally, questions about participants’ perceptions of the trial evidence as well as a memory test in the post-trial questionnaire. The pre-trial questionnaire provided basic information about a capital trial: bifurcation (i.e., guilt/penalty phase) and the duties required in each stage of the trial. Preliminary questions requested basic demographic information such as gender, age, whether the participant had ever been called for jury duty, and whether the participant had ever served on a jury.

In addition, the pre-trial questionnaire contained a series of questions designed to assess whether participants would be able to perform the duties required of them as jurors in a capital trial, also known as death qualification. The standard for whether a juror can be excluded from a capital trial based on their personal beliefs was set by Wainwright v. Witt (1985). Jurors may be excluded if their beliefs regarding the death penalty are such that it would prevent or substantially impair their ability to perform their sworn duties as jurors in a capital trial. Thus, following from
the Witt standard, one of the voir dire questions asked participants whether their attitudes regarding the death penalty would substantially impair their ability to perform their duties as required by their oath. A second question (following from the earlier standard set by Witherspoon v. Illinois, 1968) asked participants, in light of their attitudes, whether they would never be willing to vote for the death penalty. Finally, a third question sought to identify “automatic death penalty” jurors, jurors who would automatically vote for the death penalty regardless of the evidence and circumstances (Dillehay & Sandys, 1996)

The verdict questionnaire consisted of three pages, a page pertaining to verdict and verdict-related questions for each crime charged against the defendant and a page for participants to indicate their decisions regarding sentencing. On the first page, participants were asked to render verdicts of guilty or not guilty for first-degree murder. In addition, they were asked to rate how confident they were in their verdict decision on a 7-point scale, with anchors of 1 indicating being not confident at all and 7 being very confident in their verdict decision. Furthermore, two additional questions derived from the experimental procedure of Kassin and Garfield (1991) were asked. The first asked participants to estimate how likely they thought it was that the defendant committed the crime on a scale from 0 to 100 in 5 percent increments. Finally, participants were asked how confident, in general, a person would have to feel in order to convict a defendant of this particular charge (i.e., what Kassin and Garfield term “conviction threshold”).

The second page of the verdict questionnaire contained the same exact measures but in reference to the charge of first-degree feticide. The third page required participants to make sentencing decisions for each crime. Each crime was listed on the page with a blank to the left and the possible sentence indicated to the right of each listing. For first-degree murder participants chose
between death and life sentences. For first-degree feticide, participants indicated, from 0 to 15, the number of years the defendant should be imprisoned.

The post-verdict questionnaire consisted of a 12-page packet that contained a memory test of the trial evidence, questions regarding participants’ perceptions of the witnesses, specific questions regarding participants’ perceptions of the photographic evidence and state pathologist’s testimony, and Altemeyer’s (1981) Right-wing Authoritarianism Scale. In assessing participants’ memory for the trial evidence, participants were asked 20 cued-recall questions covering various aspects of the trial. Roughly half of the questions pertained to evidence central to the prosecution’s case and half of the questions were central to the defense’s case. Following the memory test, participants were asked to rate the detail and complexity of each witness’s testimony and the photographic evidence. They did so by using Likert-type scales from 1 to 10 with anchors of “very low detail” and “extremely detailed” for the level of detail scale and “not very complex” and “extremely complex” for the level of complexity scale. Although participants rated each witness on these measures, I was concerned primarily with participants’ perceptions of the photographic evidence and the state pathologist’s testimony.

Participants were also asked more specific questions regarding their perceptions of the photographic evidence and state pathologist’s testimony. Participants were asked how much did and should the respective evidence have an influence on their decisions about guilt by making a rating on a 10-point Likert-type scale with anchors of “not affected at all” to “extremely affected.” These same questions were asked again but were phrased to elicit a yes/no response rather than a rating. In addition, participants were asked to rate how much they felt they were a fair and unbiased juror given the evidence (photographs or state pathologist’s testimony) in this
case as well as if they were in an actual case. Again, they answered these questions by rating their answer on a 10-point scale with anchors of completely biased and completely fair and impartial. Finally, participants were asked, yes/no, whether they experienced any physical reactions (e.g., nervous stomach, sweaty palms, difficulty breathing) on viewing (hearing) the photographs (state pathologist’s testimony). These measures were obtained from the experiments of Douglas et al. (1997) in order to see whether I would replicate their results on these ancillary measures.

Finally, participants were asked to fill out Altemeyer’s Right-Wing Authoritarianism scale. This scale measures the extent to which a person reveres and submits to authority/religious figures, follows social conventions, and is hostile to people who do not follow the same philosophy (Altemeyer, 1981). In a meta-analysis of authoritarianism and juror studies, Narby, Cutler, and Moran (1993) found that high authoritarians were more likely to convict a defendant than low authoritarians.

Procedure

At the beginning of the experiment, participants were instructed as to their role as jurors in a capital trial. They were informed that they would be listening to an audiotape version of a trial. Afterwards, participants filled out the POMS questionnaire as a baseline measure of their emotional arousal. Then, participants filled out the pre-trial questionnaire. Once participants were finished filling out the questionnaire, they listened to the trial which was played via a portable cassette player. During the testimony of the state pathologist the prosecutor offers to the jurors Exhibit A, the photographic evidence. At this point in the trial, the experimenter paused the tape and projected the photographs on a screen on the wall by either a slide projector or computer projector. Each photograph was displayed for 10 s. After the presentation of the
photographs, the taped trial was restarted and the participants listened until the closing arguments.

On a separate tape, the participants listened to the judge’s instructions, including instructions regarding the presumption of innocence, standard of proof, and that verdict decisions should be based solely on the evidence presented during the trial. As the participants listened to the judge read and define the charges against the defendant, the experimenter paused the tape to pass out the verdict questionnaire. Thus, once the judge had read, defined, and explained what must be found in order to convict the defendant of first-degree murder, the participants were only allowed to fill out the verdict sheet for first-degree murder. Then, after the experimenter played the judge’s instructions regarding the charge of first-degree feticide, participants were allowed to fill out the corresponding verdict sheet.

Having completed their verdict decisions, participants were instructed by the experimenter that for the purposes of the experiment everyone should assume that the defendant was found guilty of both crimes charged and should render sentencing decisions even if they found the defendant not guilty of either crime. Participants were then played judge’s instructions regarding the sentencing phase of a capital trial, the role of aggravating and mitigating circumstances, and what circumstances may be interpreted as either mitigating or aggravating the current murder charge. Participants then heard the defense and prosecution offer arguments for mitigating and aggravating factors respectively. Afterwards, the experimenter directed the participants to fill out the sentencing page of their verdict questionnaire.

When the participants were finished filling out their verdict questionnaires, the experimenter then requested that the participants fill out the POMS questionnaire again. Once
the participants were finished with the POMS, they filled out the post-trial questionnaire. Afterwards, participants were debriefed, given receipts for extra-credit, and thanked for their participation in the experiment.

Results

Analyses were conducted using the conventional level of alpha set at .05. P-values are only reported for marginal effects.

Voir Dire

Participants answered three voir dire questions: whether they would be unwilling to impose the death sentence in any case, no matter what the evidence was (*Witherspoon* excludables), whether their views on the death penalty would substantially impair their ability to perform their duties as a juror in accordance with the instructions of their oath (*Witt* excludables), and whether they would automatically vote for the death penalty if the defendant was found guilty (automatic death penalty or ADP excludables). Those participants who would be willing to impose the death sentence in some cases, who did not feel that their views on the death penalty would impair their ability to perform their duties as a juror, and who would not automatically vote for the death penalty would be considered death qualified—that is, they would be allowed to serve as a juror in a capital trial. Thus, the sample was broken down into four groups: 7% were *Witherspoon* excludables, 5.4% were *Witt* excludables, 3.1% were ADP excludables, and 84.5% were death qualified. The percentages of death qualified and excludable participants found in this sample run close to estimates of these groups in the population (Kadane, 1984). As there were no differences between the analyses of the data of the entire sample of participants and only those who were death qualified, the following results are reported using the entire sample.
Manipulation Check

The measures designed to assess gruesomeness (i.e., how much each participant felt nauseated, disgusted, revolted, and sickened) were combined by adding individual ratings into a cumulative measure to check whether participants did, in fact, perceive the levels of the manipulated variables differently in terms of gruesomeness. Correlations between the post-minus pre-administrations of the gruesome measures were assessed in order to justify combining these measures. Based on the obtained correlation coefficients, post-pre nausea scores were dropped from the cumulative measure as they were weakly correlated with the other gruesome measures. Correlations between the remaining individual measures (i.e., disgust, revolted, and sickened) were significant with all relationships above $r(129) = .71$. A univariate ANOVA was performed on the difference scores between the post and pretest administrations of gruesomeness by photograph and testimony condition. Contrary to my predictions, there was no effect of photograph condition on the combined gruesomeness measure, $F(2, 122) = 0.05$, n.s.

Participants who viewed the highly gruesome photographs ($M = 2.03, SD = 3.37$) did not report more feelings associated with gruesomeness than did participants who viewed either the low gruesome ($M = 1.81, SD = 2.86$) or control photographs ($M = 1.93, SD = 3.25$). Similarly, the ANOVA failed to indicate a difference between testimony conditions on the combined gruesomeness measure, $F(1, 122) = 0.84$, n.s. Participants who heard the highly gruesome testimony ($M = 1.68, SD = 3.02$) did not report any greater feeling associated with gruesomeness than did participants who heard the low gruesome testimony ($M = 2.18, SD = 3.27$). The interaction between photograph and testimony conditions was not significant, $F(2, 122) = 1.05$, n.s.
Although analyses of the gruesome measures failed to indicate any effect of the photograph and testimony conditions, analyses of the number of “yes” responses to the question, “Did you experience any physical reactions (e.g., nervous stomach, sweaty palms, difficulty breathing) on viewing (hearing) the photographs (testimony)?” did indicate differences between the conditions of the photograph and testimony variables, respectively. A chi-square analysis indicated that a larger percentage of participants who viewed the highly gruesome photographs (24%) reported experiencing physical reactions to the photographs than participants who viewed the low gruesome photographs (19%) or control photographs (2%), \( \chi^2(2, N = 130) = 8.93 \). Similarly, a chi-square analysis showed that a larger percentage of participants who heard the highly gruesome testimony (30%) reported experiencing physical reactions to the testimony than participants who heard the low gruesome testimony (8%), \( \chi^2(1, N = 130) = 10.04 \).

Two questions were used to measure the perceived vividness of the stimuli. Participants rated the level of detail and complexity of both the photographs and state pathologist’s testimony. These ratings are presented by photograph and testimony conditions in Table 1. A 3 x 2 between-subjects ANOVA indicated that the photograph conditions had a significant effect on participants’ ratings of the level of detail of the photographic evidence, \( F(2, 124) = 61.21 \). A Tukey HSD test showed that participants who viewed the highly gruesome photographs rated the photographic evidence as more detailed (\( M = 9.02, SD = 1.22 \)) than either those participants who viewed the low gruesome photographs (\( M = 7.72, SD = 1.96 \)) or the control photographs (\( M = 4.16, SD = 2.43 \)). There was no effect of testimony on ratings of the detail of the photographic evidence, \( F(1, 124) < 0.01, \) n.s. The interaction between photograph and testimony conditions on
participants ratings of the level of detail of the photographic evidence was not significant either, 

\[ F(2, 124) = 0.46, \text{ n.s.} \]

An analysis of participants’ ratings of the complexity of the photographic evidence showed a similar pattern. A 2 x 3 ANOVA revealed an effect of photographic condition on

<table>
<thead>
<tr>
<th>Table 1.</th>
</tr>
</thead>
</table>

Mean Ratings of the Level of Detail and Complexity of the Photographs or Testimony by Photograph and Testimony Condition, Experiment 1.

<table>
<thead>
<tr>
<th>Rating Dimension</th>
<th>Level of Detaila</th>
<th>Level of Complexityb</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Photograph Condition</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highly Gruesome</td>
<td>9.02 (1.22)</td>
<td>7.50 (2.33)</td>
</tr>
<tr>
<td>Low Gruesome</td>
<td>7.72 (1.96)</td>
<td>6.74 (2.70)</td>
</tr>
<tr>
<td>Control</td>
<td>4.16 (2.43)</td>
<td>3.51 (2.36)</td>
</tr>
<tr>
<td><strong>Testimony Condition</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highly Gruesome</td>
<td>9.05 (1.55)</td>
<td>5.75 (3.10)</td>
</tr>
<tr>
<td>Low Gruesome</td>
<td>8.52 (1.78)</td>
<td>6.00 (2.94)</td>
</tr>
</tbody>
</table>

Note. Standard Deviations are presented in parentheses.

*aRatings of level of detail are presented only for the variable of interest (i.e., level of detail of photographs for photograph conditions or level of detail of testimony for testimony conditions)

*bRatings of level of complexity are presented only for the variable of interest (i.e., level of complexity of photographs for photograph conditions or level of complexity of testimony for testimony conditions)
ratings of the complexity of photographic evidence, $F(2, 124) = 32.16$. Participants who viewed the highly gruesome photographs ($M = 7.50, SD = 2.33$) or the low gruesome photographs ($M = 6.74, SD = 2.70$) judged the photographic evidence to be more complex than those participants who viewed the control photographs ($M = 3.51, SD = 2.36$), but they did not differ from one another. There was neither an effect of testimony condition on participants’ ratings of complexity, $F(1, 124) = 0.04$, n.s., nor an interaction between testimony and photograph conditions on participants’ ratings of complexity, $F(2, 124) = 0.87$, n.s.

Participants’ ratings of the level of detail and complexity of the state pathologist’s testimony were also analyzed. There was a marginal effect of testimony condition on participants’ ratings of the level of detail of the state pathologist’s testimony, $F(1, 124) = 3.16$, $p = .08$. Participants who heard the highly gruesome testimony rated the testimony as marginally more detailed ($M = 9.05, SD = 1.55$) than participants who heard the low gruesome testimony ($M = 8.52, SD = 1.78$). Photograph condition had no effect on participants’ ratings of the level of detail of the state pathologist’s testimony, $F(2, 124) = 0.12$, n.s. There was no interaction between photograph and testimony conditions on participants’ ratings of detail, $F(2, 124) = 2.63$, n.s.

Analyses of participants’ ratings of complexity failed to indicate a difference between testimony conditions, $F(1, 124) = 0.87$, n.s. Participants who heard the highly gruesome testimony ($M = 5.75, SD = 3.10$) judged the testimony as no more complex than participants who heard the low gruesome testimony ($M = 6.00, SD = 2.94$). There was neither an effect of photographic condition on participants’ ratings of the complexity of the state pathologist’s
testimony, $F(2, 124) = 0.35$, n.s., nor an interaction between the photographic and testimony conditions on participants’ ratings of complexity, $F(2, 124) = 1.57$, n.s.

**Emotional Arousal Analyses**

Analyses were conducted on the effects of the manipulated variables on three of the POMS subscales: tension-anxiety, depression-dejection, and anger-hostility. Previous research has implicated the role of emotional arousal as a possible mediator of the biasing effects of graphic evidence on jurors decisions (Douglas et al., 1997; Fishfader et al., 1996; Oliver & Griffit, 1976). Most research has invoked emotion in a global sense, not specifying whether graphic evidence arouses specific emotions like anger or sadness. For instance, Fishfader et al. (1996) used the POMS scale to obtain a total mood disturbance score of jurors who were presented with either a print transcript, videotaped testimony, or videotaped testimony and a video recreation of a drowning death. As such, I performed separate univariate ANOVAs on the post/pretest difference of the tension-anxiety, depression-dejection, and anger-hostility subscales of the POMS. Analyses were performed on the difference scores between post and pretest to account for differences in baseline emotional arousal levels.

The results failed to indicate an effect of photograph condition on participants’ tension scores, $F(2, 124) = 0.51$, n.s. Likewise, the testimony conditions failed to have an effect on participants’ tension scores, $F(1, 124) = 0.78$, n.s. There was no interaction between photograph and testimony conditions on tension scores, $F(2, 124) = 0.42$, n.s.

Scores on the depression-dejection subscale of the POMS were not affected by the photograph conditions, $F(2, 124) = 0.07$, n.s. The testimony conditions had no more of an effect
on depression scores, $F(1, 124) = 0.19$, n.s. The interaction between photograph and testimony conditions on the depression-dejection subscale was not significant, $F(2, 124) = 0.59$, n.s.

Analyses on the anger-hostility subscale of the POMS showed a similar lack of effects of the manipulated variables. Photograph conditions failed to affect participants’ ratings of anger-hostility, $F(2, 124) = 0.46$, n.s. Similarly, testimony conditions failed to have an effect on participants’ ratings of anger-hostility, $F(1, 124) = 0.17$, n.s. The interaction between photograph and testimony conditions on the anger-hostility subscale of the POMS was not significant, $F(2, 124) = 0.67$, n.s.

Verdict Analyses

The percentage of guilty verdicts for first-degree murder and first-degree feticide listed by photograph and testimony condition is shown in Table 2.\(^6\) Contrary to my predictions, a logistic regression of verdict for first degree murder failed to indicate any differences between the photograph conditions, $B = .18$, n.s. Participants who viewed the highly gruesome photographs (31%) were no more likely to find the defendant guilty of first-degree murder than participants who viewed the low gruesome photographs (37%) or the control photographs (36%). Likewise, there was no effect of gruesome testimony from the state pathologist on the dichotomous verdict of guilt for first-degree murder, $B = -.42$, n.s. Participants who heard the highly gruesome testimony (40%) were not significantly more likely to find the defendant guilty of first-degree murder than participants who heard the low gruesome testimony (29%).

\(^6\)Alternatively, a 2 x 3 ANOVA was performed on the number of guilty verdicts (i.e., 0 - 2) but did not change the pattern of results.
Table 2.

Percentage of Guilty Verdicts by Photograph and Testimony Condition for First-degree Murder and First Degree Feticide, Experiment 1.

<table>
<thead>
<tr>
<th>Testimony Condition</th>
<th>Highly Gruesome</th>
<th>Low Gruesome</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First-degree Murder</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Photograph Condition</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highly Gruesome</td>
<td>36%</td>
<td>25%</td>
<td>31%</td>
</tr>
<tr>
<td>Low Gruesome</td>
<td>45%</td>
<td>30%</td>
<td>37%</td>
</tr>
<tr>
<td>Control</td>
<td>40%</td>
<td>30%</td>
<td>36%</td>
</tr>
<tr>
<td>Average</td>
<td>40%</td>
<td>29%</td>
<td>35%</td>
</tr>
<tr>
<td><strong>First-degree Feticide</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Photograph Condition</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highly Gruesome</td>
<td>36%</td>
<td>20%</td>
<td>29%</td>
</tr>
<tr>
<td>Low Gruesome</td>
<td>35%</td>
<td>30%</td>
<td>33%</td>
</tr>
<tr>
<td>Control</td>
<td>36%</td>
<td>30%</td>
<td>33%</td>
</tr>
<tr>
<td>Average</td>
<td>36%</td>
<td>27%</td>
<td>32%</td>
</tr>
</tbody>
</table>
However, the pattern of guilt verdicts for first-degree murder was in the direction predicted based on the gruesomeness of the testimony.

A logistic regression of the dichotomous verdict for first-degree feticide indicated similar results. There was no difference in the number of guilty verdicts for the photograph conditions, \( B = .52 \), n.s. Participants who viewed the highly gruesome photographs (29%) were no more likely to find the defendant guilty of first-degree feticide than participants who viewed the low gruesome photographs (33%) or control photographs (33%). The logistic regression also indicated no effect of testimony condition on verdict for first-degree feticide, \( B = .10 \), n.s. Participants who heard the highly gruesome testimony (36%) were no more likely to find the defendant guilty of first-degree feticide than participants who heard the low gruesome testimony (27%).

Dichotomous verdicts of guilty/not guilty were combined with participants’ reported confidence in their verdict choice to form a continuous measure of guilt for both crimes that the defendant was charged with. Confidence ratings and verdict were combined to form a 14-point scale from 1, absolutely not guilty, to 14, absolutely guilty. The continuous verdict measures for first-degree murder are presented by photograph and testimony conditions in Table 3.

Analyses of the continuous measures of guilt indicated similar results as did analyses of the dichotomous verdicts. A 2 x 3 ANOVA on the combined verdict and confidence scores for first-degree murder failed to indicate an effect of the photograph conditions, \( F(2, 124) = .32 \), n.s. Similarly, there was no effect of testimony condition on participants’ combined verdict and confidence scores for first-degree murder, \( F(1, 124) = 1.45 \), n.s. The interaction between
Table 3.

Combined Verdict and Confidence Ratings and Likelihood of Commission Estimates by Photograph and Testimony Conditions for First-Degree Murder, Experiment 1.

<table>
<thead>
<tr>
<th>Testimony Condition</th>
<th>Highly Gruesome</th>
<th>Low Gruesome</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Verdict/Confidence Measure</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Photograph Condition</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highly Gruesome</td>
<td>6.59 (4.61)</td>
<td>5.30 (4.99)</td>
<td>5.98 (4.78)</td>
</tr>
<tr>
<td>Low Gruesome</td>
<td>7.25 (4.93)</td>
<td>6.04 (4.51)</td>
<td>6.61 (4.69)</td>
</tr>
<tr>
<td>Control</td>
<td>6.92 (5.07)</td>
<td>6.40 (4.27)</td>
<td>6.69 (4.69)</td>
</tr>
<tr>
<td>Total</td>
<td>6.91 (4.81)</td>
<td>5.92 (4.54)</td>
<td>6.43 (4.69)</td>
</tr>
</tbody>
</table>

| **Commission Estimates** |                 |              |         |
| Photograph Condition |                 |              |         |
| Highly Gruesome     | 62.50 (22.66)   | 56.00 (32.83) | 59.41 (27.81) |
| Low Gruesome        | 72.50 (26.23)   | 57.61 (28.60) | 64.54 (28.22) |
| Control             | 65.40 (27.69)   | 61.00 (29.98) | 63.44 (28.48) |
| Total               | 66.57 (25.63)   | 58.18 (30.00) | 62.50 (28.05) |

Note. Standard Deviations are in parentheses.
photograph and testimony conditions on the combined verdict and confidence measure for first-degree murder was also not significant, $F(2, 124) = 0.09$, n.s.

Continuous verdict measures for first-degree feticide are presented in Table 4. Analyses of the continuous measure of guilt for first-degree feticide showed a similar lack of effects of the manipulated variables. The photograph conditions failed to have an effect on participants’ combined verdict and confidence scores for first-degree feticide, $F(2, 124) = 0.45$, n.s. Testimony conditions also failed to affect combined verdict and confidence scores for first-degree feticide, $F(1, 124) = 1.05$, n.s. There was no interaction between the photograph and testimony conditions on participants’ combined verdict and confidence scores for first-degree feticide, $F(1, 124) = 0.34$, n.s.

In addition to combining verdicts and confidence ratings into a continuous measure of guilt, participants also made judgments regarding how likely they believed it was that the defendant had committed the crime in question. A 2 x 3 ANOVA on participants’ likelihood of commission estimates for first-degree murder followed the same general pattern of the previous analyses. Photograph conditions failed to affect participants likelihood of commission estimates for first-degree murder, $F(2, 124) = 0.47$, n.s. However, there was a marginal main effect of testimony condition, $F(1, 124) = 3.02$, $p = .09$. As can be seen in Table 3, participants who heard the highly gruesome testimony ($M = 66.57, SD = 25.63$) were marginally more likely to believe the defendant committed the murder than participants who heard the low gruesome testimony ($M = 58.18, SD = 30.00$). There was no interaction between photograph and testimony conditions on likelihood of commission estimates for first-degree murder, $F(2, 124) = 0.42$, n.s.
Table 4.

Combined Verdict and Confidence Ratings and Likelihood of Commission Estimates by Photograph and Testimony Conditions for First-Degree Feticide, Experiment 1.

<table>
<thead>
<tr>
<th>Testimony Condition</th>
<th>Photograph Condition</th>
<th>Verdict/Confidence Measure</th>
<th>Total</th>
<th>Commission Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Highly Gruesome (4.81)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Low Gruesome (4.75)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total (4.81)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Highly Gruesome</td>
<td>6.55</td>
<td>4.70</td>
<td>5.67</td>
</tr>
<tr>
<td></td>
<td>Low Gruesome</td>
<td>6.60 (4.89)</td>
<td>6.00</td>
<td>6.28 (4.79)</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>6.68 (5.34)</td>
<td>6.50</td>
<td>6.60 (4.85)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>6.61 (4.96)</td>
<td>5.75</td>
<td>6.19 (4.80)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>53.75 (34.67)</td>
<td></td>
<td>56.19 (30.14)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>53.91 (29.66)</td>
<td></td>
<td>59.54 (30.06)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>60.25 (31.14)</td>
<td></td>
<td>62.67 (29.86)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>55.87 (31.41)</td>
<td></td>
<td>59.54 (29.90)</td>
</tr>
</tbody>
</table>

Note. Standard Deviations are in parentheses.
Analyses of participants’ likelihood of commission estimates for first-degree feticide indicated null results. Neither the photograph conditions, nor the testimony conditions had an effect on participants’ likelihood of commission estimates for first-degree feticide, $F(2, 124) = 0.49$, n.s., and $F(1, 124) = 1.76$, n.s., respectively. The interaction between photograph and testimony conditions was also not significant, $F(2, 124) = 0.23$, n.s.

Kassin and Garfield (1991) indicated that videotaped crime scenes that show the victims of violent crime in graphic detail lower mock-jurors’ estimates of the standard of proof necessary to convict a defendant of a first-degree murder. As such, estimates of the standard of proof necessary to convict a defendant (called conviction threshold estimates from here on out) of both first-degree murder and first degree feticide were included in the present study. Separate 2 x 3 ANOVAs were performed on the conviction threshold estimates for first-degree murder and first-degree feticide. There was no main effect of photograph condition for either conviction threshold estimates for first-degree murder or first-degree feticide, $F(2, 124) = 1.39$, n.s., and $F(2, 124) = 0.63$, n.s., respectively. Likewise, the testimony conditions failed to have an effect on conviction threshold estimates for either first-degree murder or first-degree feticide, $F(1, 124) = 1.04$, n.s., and $F(1, 124) = 0.39$, n.s., respectively. Finally, there were no interactions between the photograph conditions and testimony conditions on participants’ threshold estimates for either first-degree murder or first-degree feticide, $F(2, 124) = 0.5$, n.s., and $F(2, 124) = 0.49$, n.s., respectively.

As the trial used in this experiment concerned an ex-husband accused of killing his pregnant former wife, I thought it would be prudent to investigate whether gender had an effect on the continuous measures of guilt. Separate 2 x 2 x 3 ANOVAs were conducted on the
continuous verdict-related measures with gender included as a separate factor in addition to the photograph and testimony conditions. In fact, gender did have an effect on the combined verdict and confidence scores for first-degree murder, $F(1, 123) = 4.30$. Women found the defendant more guilty ($M = 7.08$, $SD = 4.72$) of the first-degree murder charge than men ($M = 5.49$, $SD = 4.53$). However, overall, the combined verdict and confidence scores were still fairly low. Gender also had a significant effect on likelihood of commission estimates, $F(1, 123) = 4.40$, with women finding the defendant more likely to have committed the murder ($M = 66.10$, $SD = 25.90$) than men ($M = 57.26$, $SD = 30.39$). Analyses of gender effects on the continuous measures for first-degree feticide yielded similar results. Gender affected combined verdict and confidence scores, $F(1, 123) = 4.90$. Again, women found the defendant more guilty ($M = 6.92$, $SD = 4.91$) than men ($M = 5.13$, $SD = 4.47$). Not as robust, gender had a marginally significant effect on likelihood of commission estimates for first-degree feticide, $F(1, 123) = 3.54$, $p = .08$. Women found the defendant marginally more likely to have committed the first-degree feticide ($M = 63.25$, $SD = 28.27$) than men ($M = 54.15$, $SD = 31.62$). Gender had no effect on conviction threshold estimates for either first-degree murder or first-degree feticide, $Fs(1, 123) 1.04$, and 0.54, respectively.

With gender included in the model as a factor, analyses of the effects of the manipulated variables on the continuous measures of guilt yielded one significant effect. Testimony condition had a significant effect on participants’ likelihood of commission estimates for first-degree murder, $F(1, 123) = 4.26$. 
**Sentencing Analyses**

In order to increase the power of detecting an effect on participants sentence decisions, all participants made sentence decisions for first-degree murder and first-degree feticide. Analyses were performed on the number of death sentence verdicts for first-degree murder by photograph and testimony conditions. A logistic regression indicated that there were no differences in the number of death sentences given by photographic condition, $B = .67$, n.s. Participants who viewed the highly gruesome photographs were no more likely to recommend death (19%) than were participants who viewed the low gruesome photographs (30%) or control photographs (18%). Likewise, testimony conditions did not have an effect on participants’ death sentence verdicts, $B = .49$, n.s. Participants who heard the highly gruesome testimony were no more likely to recommend death (19%) than participants who heard the low gruesome testimony (26%). There was no interaction between photograph and testimony condition on the number of death sentences given by participants, $B = .41$, n.s.

Analyses were also performed on participants’ sentencing verdicts for first-degree feticide. However, as most participants recommended the maximum sentence (i.e., 15 years) for first-degree feticide, there was little variation across conditions. Thus, there appeared to be a ceiling effect. The photograph conditions had no effect on participants’ sentencing verdicts for first-degree feticide, $F(2, 122) = 0.09$, n.s. Participants who viewed the highly gruesome photographic evidence were no more likely to give longer sentences for first-degree feticide ($M = 13.28, SD = 2.59$) than participants who viewed the low gruesome photographs ($M = 13.52, SD = 3.19$) or control photographs ($M = 13.29, SD = 3.15$). In addition, there was no effect of testimony conditions on participants’ first-degree feticide sentencing decisions, $F(1, 122) = 0.01$, n.s.
n.s. Participants who heard the highly gruesome testimony ($M = 13.34$, $SD = 3.00$) gave similar sentence recommendations as participants who heard the low gruesome testimony ($M = 13.39$, $SD = 2.97$). The interaction between photograph and testimony conditions was not significant on this measure, $F(2, 122) = 0.80$, n.s.

Given the ceiling effects on participants’ sentencing verdicts for first-degree feticide, I included verdict (i.e., guilty or not guilty) as a factor and analyzed participants’ sentencing verdicts with a $2 \times 2 \times 3$ ANOVA. There was a marginal interaction between verdict and testimony conditions on participants’ sentencing verdicts for first-degree feticide, $F(1, 116) = 3.30, p = .07$. The interaction indicated that of those participants’ who found the defendant guilty of first-degree feticide, those who heard the low gruesome testimony gave slightly longer sentences ($M = 14.44$, $SD = 2.25$) than those who heard the highly gruesome testimony ($M = 12.94$, $SD = 2.41$). This pattern was not present in those participants who found the defendant not guilty of first-degree feticide, with those who heard the low gruesome testimony giving similar sentences ($M = 13.02$, $SD = 3.13$) as those who heard the highly gruesome testimony ($M = 13.56$, $SD = 3.29$). No other interactions were significant.

Analyses of Perceptions of Gruesome Evidence

Douglas et al. (1997) included ancillary questions designed to assess participants’ perceptions of how much gruesome evidence did and should affect their verdicts as well as how much they believed they had been and could be a fair and impartial juror given this type of evidence. Although each of these questions was included in the present study, only those questions that revealed significant effects of the manipulated variables will be discussed. There was a main effect of photograph conditions to the question of how much did the photos influence
your decision about guilt, $F(2, 124) = 8.81$. A Tukey HSD post-hoc test revealed that participants who viewed the highly gruesome photographs ($M = 4.07, SD = 2.60$) or low gruesome photographs ($M = 3.42, SD = 2.21$) felt that the photographs influenced their verdicts to a greater degree than participants who viewed the control photographs ($M = 2.16, SD = 1.54$). Not surprisingly, there was no effect of testimony conditions to this question, $F(1, 124) = 1.01$, n.s. Also, there was no significant interaction between the photograph and testimony conditions, $F(2, 124) = 0.65$, n.s.

   Answers pertaining to the question of how much did the testimony influence your decisions about guilt revealed a significant main effect for testimony condition, $F(1, 124) = 5.50$. Participants who heard the highly gruesome testimony ($M = 6.60, SD = 2.17$) of the state pathologist felt that the testimony had a greater influence on their decisions about guilt than did participants who heard the low gruesome testimony ($M = 5.73, SD = 2.06$). Again, not surprisingly, there was no main effect of photograph condition for this question, $F(2, 124) = 0.39$, n.s. Furthermore, there was no interaction between the photograph and testimony conditions on participants’ perceptions of how much the testimony influenced their decisions about guilt, $F(2, 124) = 0.40$, n.s.

**Analyses of Participants’ Memory for Trial Evidence**

   Analyses were performed on the number of correctly recalled items of evidence. The cued-recall test (20 questions total) was further broken down into questions concerning details of the prosecution’s (8 items) and defense’s case (10 items). Separate analyses were performed on

---

7Items were classified according to whether the evidence implicated the defense’s guilt or not. Two of the 20 items were neutral in this regard.
the whole test (TOTAL), memory for the details of the prosecution’s case (PRO) and memory for
the details of the defense’s case (DEF). A 2 x 3 ANOVA failed to indicate a main effect of
photograph condition on the TOTAL test, \( F(2, 120) = 0.06 \), n.s. However, there was a main
effect of testimony condition on the TOTAL test, \( F(1, 120) = 3.97 \). Participants in the low
gruesome testimony condition recalled more items accurately (\( M = 17.10, SD = 1.75 \)) than
participants in the highly gruesome testimony condition (\( M = 16.24, SD = 2.92 \)). The interaction
between photograph and testimony conditions on the TOTAL test was not significant, \( F(2, 120) = 1.08 \), n.s.

An analysis of the number of correct responses to the PRO portion of the cued-recall test
failed to indicate main effects for photograph or testimony conditions, \( F(2, 120) = 0.26, F(1, 120) = 1.17 \), respectively, both n.s. In addition, there was no significant interaction between
photograph and testimony conditions on the PRO portion of the cued-recall test, \( F(2, 120) = 0.90 \), n.s.

While an analysis of the number of correct responses to the DEF portion of the cued-recall test
failed to indicate a significant main effect of photograph condition, there was a main
effect of testimony condition, \( F(2, 120) = 0.38, n.s., F(1, 120) = 4.99 \), respectively. Participants
who heard the low gruesome testimony recalled more information critical to the defense’s case
(\( M = 8.73, SD = 1.26 \)) than participants who heard the highly gruesome testimony (\( M = 8.12, SD = 1.86 \)). Thus, the effect of testimony on the TOTAL test appears to be due to the difference on
the DEF portion of the cued-recall test. The interaction between photograph and testimony
conditions on the DEF portion of the cued-recall test was not significant, \( F(2, 120) = 1.02 \), n.s.
Analyses of Authoritarianism

Analyses were then performed on the verdict and verdict-related measures with authoritarianism included as a covariate. Narby et al. (1993) found a relationship between authoritarianism and the likelihood of conviction judgments (i.e., dichotomous guilty verdicts and continuous measures of defendant culpability) such that high authoritarians were more conviction-prone than low authoritarians. However, this relationship was stronger for measures of legal authoritarianism (e.g., Juror-Bias Scale) than measures of “traditional” authoritarianism (e.g., Altemeyer’s Right-Wing Authoritarianism Scale). Examining guilty verdicts for first-degree murder, authoritarianism had no effect when included in the logistic regression model. Photograph condition still showed no effect on guilty verdicts, $B = 0.15$, n.s. Likewise, testimony condition also failed to have an effect on participants verdicts, $B = -0.51$, n.s. The interaction between photograph and testimony conditions was still not significant, $B = -0.10$, n.s.

The same pattern emerged with regard to a logistic regression on the number of guilty verdicts for first-degree feticide with authoritarianism included as a covariate. Neither photograph condition nor testimony condition had a significant effect on participants’ guilty verdicts, $B = 0.50$ and $B = 0.07$, respectively, both n.s. Also, there was no interaction between photograph and testimony conditions on participants guilty verdicts for first-degree feticide, $B = -0.24$, n.s.

Regarding analyses of the continuous verdict measures (i.e., combined verdict and confidence and likelihood of commission estimates for both first-degree murder and first-degree feticide) with authoritarianism as a covariate, only one marginally significant finding emerged. With the variance associated with authoritarianism partialled out, testimony condition had a
marginal effect on participants’ likelihood of commission estimates for first-degree murder, $F(1, 122) = 3.49, p = .06$. Participants who heard the highly gruesome testimony found the defendant more likely to have committed the murder ($M = 66.14, SD 25.58$) than participants who heard the low gruesome testimony ($M = 58.17, SD = 30.00$).

Participants were divided into high and low authoritarians using a median split. Analyses were then performed on the continuous verdict-related measures in separate $2 \times 2 \times 3$ ANOVAs with authoritarianism included as a factor along with photograph and testimony conditions. There was one marginal main effect of authoritarianism. High authoritarians found the defendant more likely to have committed the first-degree murder ($M = 66.42, SD = 28.77$) than low authoritarians ($M = 57.71, SD = 26.75$), $F(1,116) = 3.50, p = .06$. There was also a significant interaction between authoritarianism and photograph condition on likelihood of commission estimates for first-degree feticide, $F(2, 116) = 3.43$. The interaction was such that for low authoritarians, participants who viewed the low gruesome photographs found the defendant more likely to have committed the feticide ($M = 63.85, SD = 28.51$) than participants who viewed the control ($M = 51.75, SD = 26.52$) or highly gruesome photographs ($M = 49.33, SD = 29.39$). For high authoritarians, those participants who viewed the low gruesome photographs found the defendant less likely to have committed the feticide ($M = 54.38, SD = 32.50$) than those participants who viewed the control photographs ($M = 71.40, SD = 29.98$) or highly gruesome photographs ($M = 58.46, SD = 29.93$).
Discussion

Effects on Mock Jurors’ Verdicts

**Failure to replicate past research.** The most striking result of Experiment 1 was the lack of replicable findings to Douglas et al.’s (1997) study. Neither gruesome photographic exhibits nor gruesome testimony affected directly participants’ guilt verdicts for either crime charged. In addition, this pattern of null effects was consistent for the continuous measures of guilt. Given the contrasting results presented here with Douglas et al.’s study, some discussion of the differences between the two studies is warranted.

Concerning methodology, Experiment 1 was virtually identical to Douglas et al. (1997) in that gruesome photographs (ignoring the distinction between the low gruesome and highly gruesome photographs conditions herein) were compared to a control condition in which participants viewed photographs associated with the crime but which did not depict the deceased victim. However, whereas in the present experiment participants saw either gruesome photographs or non-gruesome photographs, in the Douglas et al. study all participants saw the non-gruesome photographs. The only difference between the control and experimental conditions was that the control participants were not exposed to the additional gruesome photographs. Nonetheless, I find it doubtful that such a minor methodological difference would produce the differences in the results seen here.

One potential methodological difference between the present experiment and Douglas et al. (1997) that may underlie the differences in results is the inclusion of lesser charges in the latter. Participants in the Douglas et al. study could have found the defendant not guilty, guilty of first-degree murder, guilty of second-degree murder, or guilty of manslaughter. Koch and
Devine (1999) found that juries were more likely to convict when a lesser charge was included in the trial procedure than not included; however, this effect occurred only when the reasonable doubt standard was not explicitly defined. Although Douglas et al. provided a definition of the reasonable doubt standard to their participants, their finding of a biasing effect of gruesome evidence may have interacted with the inclusion of lesser charges. In their results, Douglas et al. performed analyses on the total number of guilty verdicts without breaking down verdict by charge. A worthwhile avenue for future research would be to manipulate inclusion of lesser charges to see whether such a procedural factor would interact with gruesome evidence.

Kassin and Garfield (1991) argued that one potential reason they failed to find a direct, main effect of crime scene videos on participants’ verdicts was because the case they used resulted in a low overall conviction rate (21%). However, while the overall conviction rate was lower in the present study (35%) than in the pilot study of the trial stimulus (50%), the conviction rate appears to be high enough to allow for enough variability to detect any effects of the manipulated variables. In other words, there was no floor effect.

One major caveat to the findings reported here is that the main manipulation check of the gruesome measures (i.e., how nauseated, disgusted, revolted, and sickened participants felt) failed to indicate differences in participants’ ratings between photograph or testimony conditions. One interpretation of the lack of an effect on the gruesome measures by the manipulated variables is that the participants did not perceive the photographs/testimony differently. This failure to find differences on the gruesomeness measures is in contrast to the pilot studies, which did indicate differences between the levels of the testimony variable in terms of perceptions of gruesomeness and differences between the low gruesome and highly gruesome photographs in
terms of emotional reactions. However, both pilot studies from which the materials for the
manipulated variables were chosen were conducted with samples drawn from different
populations (i.e., regional differences for testimony—Louisiana State University undergraduate
students versus University of Nebraska-Lincoln undergraduate students, and regional/age
differences for the photographs—Louisiana, non-student population versus University of
Nebraska-Lincoln undergraduate students). Potentially, these differences in the populations from
which the samples were drawn could have led to differential effects. However, in a
comprehensive review of the research, Bornstein (1999) found no support for the hypothesis that
university student populations differ from the older, juror-eligible population in juror-decision
making studies. Nonetheless, there may be substantive regional differences leading to the
discrepancies between the pilot results and results of Experiment 1.

In addition, differences between the pilot studies and the failure to find effects of the
photograph and testimony conditions on the gruesomeness measure in the present study could
stem from judging the gruesome evidence alone, as in the pilot studies, compared to judging
them embedded in the trial stimulus.

While there was neither an effect of the photographic evidence nor the testimony of the
state pathologist on the measures of perceived gruesomeness, there was an effect on participants’
yes/no responses regarding whether they experienced any physical reactions as a result of the
presentation of these stimuli. A larger percentage of the participants who viewed the highly
gruesome photographs reported experiencing physical reactions than participants who viewed the
control photographs. Similarly, a larger percentage of the participants who heard the highly
gruesome testimony of the state pathologist reported experiencing physical reactions than those
participants who heard the low gruesome testimony. So, while there was no finding of either manipulated variable affecting the direct measures of gruesomeness, there was some evidence that participants did, in fact, perceive the levels of the gruesome evidence differently, and this difference was in the predicted direction. Douglas et al. (1997) found a similar pattern of results. In their study, a larger percentage of participants who viewed the gruesome photographs reported experiencing physical reactions on viewing the photographs than participants who viewed the control, non-gruesome photographs only. In addition to this finding, Douglas et al. also found that participants who viewed the gruesome photographs reported more emotional reactions (i.e., participants reported feeling more anxious, stressed, anguished, disturbed, and shocked) than participants who viewed the control photographs.

With gender included as a factor, one significant effect emerged (also a marginal effect with authoritarianism included as a covariate). Testimony condition had an effect on participants’ likelihood of commission estimates for first-degree murder, with those participants hearing the highly gruesome testimony viewing the defendant as more culpable than those who heard the low gruesome testimony. However, commission estimates were still fairly low for both conditions (i.e., < 66), and the difference in commission estimates did not translate into dichotomous verdicts. Interestingly, this pattern of data is potentially explained by differences in memory of the trial evidence. Participants who heard the low gruesome testimony recalled more details of the defense’s testimony than participants who heard the highly gruesome testimony. Worth noting, the defense’s case was presented after the presentation of the gruesome testimony of the coroner. Thus, the highly gruesome testimony condition may have hurt participants’ memory for the defense’s case. Studies have demonstrated a laboratory-induced anterograde
amnesia effect for information succeeding an emotionally arousing event (Christianson, 1992). The results of Experiment 1 appear consistent with these findings.

**Underlying mechanisms.** Experiment 1 also failed to find an effect of photograph or testimony conditions on the tension-anxiety, depression-dejection, and anger-hostility subscales of the POMS questionnaire. Previous research has emphasized the role that participants’ emotional reactions to gruesome evidence may have as a potential mediator of any biasing effects on juror-analogous decisions (Douglas et al., 1997; Fishfader et al. 1996; Oliver & Griffit, 1976; Whalen & Blanchard, 1982). Fishfader et al. found that student mock-jurors’ overall POMS mood disturbance score was affected by videotaped recreations and videotaped testimony compared to written transcripts of the trial. They found further that pre- to post-test difference scores on the POMS were inversely related to the assessment of liability on the defendant. Douglas et al. found that to the degree that participants felt sad, vengeful, outraged, shocked, and anxious as a result of viewing gruesome photographic evidence the more they believed the defendant to be guilty. Thus, there is good support for the idea that gruesome evidence exerts its biasing effects by eliciting emotional reactions in the juror. The lack of any effects of the gruesome photographs or testimony in the present experiment may be due to the inability of the evidence to produce strong emotional reactions in the participants, at least as measured by the POMS. Recent research by Kern, Libkuman, and Otani (2002) suggests that different measures of emotion may yield different relationships between emotion and mock jurors’ verdicts. Thus, the validity, in this context, of various emotion/mood scales may vary.

Overall, the failure to find differences in perceived gruesomeness as well as the failure to observe differences in emotional reactions, as measured by the POMS, between the levels of
photographic and testimony conditions suggests that the manipulation of gruesomeness in Experiment 1 was relatively weak. However, the stimuli used in Experiment 1 make one question how extreme a manipulation of gruesomeness would be required to generate differences in perceived gruesomeness and emotional reactions. Ignoring the low gruesome photographs condition, the highly gruesome photographs condition included four graphic photographs of a murder victim, some of which consisted of close-ups of the victim’s profusely bloody face. The control photographs, on the other hand, depicted the “victim” when she was alive and three other photographs ostensibly depicted physical evidence of the crime (e.g., broken basement window). Comparisons between the photographic evidence used in the present experiment and photographic evidence used in the Douglas et al. (1997) study, as best indicated from the description of their research protocol, indicates that the stimuli between the two studies were quite similar. Differences between the trial stimuli also seem negligible between the two studies.

In the present experiment a 35-minute audiotaped trial was used, whereas Douglas et al. used a 30-page written transcript. Although the medium used to present the trial stimulus in the present experiment could be classified as more “realistic” as compared to the written transcript of Douglas et al., there is little evidence that trial medium has any appreciable effects on mock jurors’ judgments (Bornstein, 1999).

Another explanation for the weak effects of gruesome evidence in the present study is that embedding the evidence in the trial stimulus of this length may have weakened its effects. If this were true, it might explain why pilot studies found differences in perceptions of the gruesome evidence when judged by itself than when judged in the context of a trial as in Experiment 1. However, the results of Kramer and Kerr (1989) suggest a strong caveat to this speculation in
that they found that trial length had no effect in mitigating the deleterious consequences of pretrial publicity on jurors’ decisions. Nonetheless, the gruesome evidence in Experiment 1 may have been weakened by appearing relatively removed from the emotional content of the trial itself. There was little display of emotion in the witnesses who testified.

Besides the emotional reaction hypothesis proposed to account for the biasing effects of gruesome evidence on jurors’ decisions, researchers have also speculated that the greater vividness of the gruesome evidence compared to non-gruesome evidence may cause or contribute to its biasing effects (Douglas et al., 1997; Fishfader et al., 1996). However, none of the previous research has included measures designed to assess the vividness of gruesome evidence compared to non-gruesome evidence. In Experiment 1, vividness was assessed by having participants rate both the photographic evidence as well as the testimony of the state pathologist in terms of complexity and detail. The results indicated that participants perceived the level of detail in the photographs differently according to the condition. Thus, the highly gruesome photographs were viewed as more detailed than the low gruesome photographs that in turn were viewed as more detailed than the control photographs. A similar pattern was found for participants’ ratings of complexity, although no difference between the highly gruesome photograph and low gruesome photograph conditions was observed. Participants’ ratings of complexity and detail for the state pathologist’s testimony showed either a marginal effect (detail) or no effect (complexity). Thus, while it is doubtful that the photographs were viewed differently with regard to perceived gruesomeness, there is ample evidence that the photographs did differ in perceptions of vividness.
However, given the lack of effects of the photograph conditions on verdict and verdict-related measures, Experiment 1 did not replicate research that indicates that vividness can influence judgments akin to juror decisions. Both Reyes et al. (1980) and Wilson et al. (1989) found that by manipulating the level of irrelevant detail in the arguments given by the parties in a criminal and civil trial, respectively, participants made judgments in favor of the side with the additional details. As the photographs are part of the prosecution’s case in Experiment 1 and given the differences in the ratings of the level of detail and complexity between the photograph conditions, participants who viewed the highly gruesome photographs should have been more likely to convict than participants in the low gruesome or control photograph conditions. However, Experiment 1 failed to indicate that pattern of results.

Although Experiment 1 was not designed to investigate the effects of vividness independent of its relationship with gruesome evidence, some discussion of why the arguably vivid information in this experiment (i.e., the highly gruesome photographs and testimony as compared to the control photographs and low gruesome testimony, respectively) failed to produce the same vividness effects as found by past research. There are two potential explanations for this failure to replicate Reyes et al. (1980) and Wilson et al. (1989). First, in both of these studies, vividness was manipulated by adding irrelevant detail to arguments or by using adjectives more likely to evoke imagery (e.g., spiderweb of cracks vs. network of cracks, Wilson et al., 1989). In the present experiment, the photographs, which were intended to vary in terms of gruesomeness, did vary in terms of detail and complexity. However, those qualities that made the photographs differ in terms of detail and complexity may be quite different from the addition of irrelevant detail to written arguments. Second, Taylor and Thompson (1982) pointed
out that vividness effects are equivocal because the psychological construct of information vividness has been loosely defined. Thus, past research has found an effect of irrelevant detail on judgments presumably because of the imagery that it evokes and its resultant effect on memory for the various arguments (Reyes et al., 1980; Wilson et al., 1989). Experiment 1 revealed a difference in the perceived detail and complexity of the photographs; however, the lack of replicable findings may be dependent on how vividness was defined in the present experiment compared to Reyes et al. and Wilson et al. For instance, Wilson et al. found that the vivid arguments they used were perceived as more image evoking, more memorable, and containing more unusual imagery than the pallid arguments.

In Experiment 1, I extended the previous study of the effects of gruesome evidence on jurors’ decisions beyond photographic evidence by adding gruesome, verbal information to the experimental design. By manipulating the level of gruesomeness of the state pathologist’s testimony, I sought to determine whether gruesome verbal information would produce effects analogous to the previous findings of gruesome photographic evidence. While pilot testing of the testimony evidence indicated differences in perceptions of gruesomeness, the gruesomeness measures included as a manipulation check to the experiment failed to indicate differences between conditions. However, as with the photographs, participants who heard the highly gruesome testimony of the state pathologist reported experiencing more physical reactions such as increased heart rate and difficulty breathing than those participants who heard the low gruesome testimony. Despite this, testimony conditions had no effect on participants’ verdict and verdict-related measures. Thus, these null effects are consistent with the null effects of the photographic conditions: neither had an effect on participants’ verdict decisions.
There was less of an indication that the testimony conditions were perceived differently in terms of vividness. Only a marginal difference in participants ratings of level of detail was found for the testimony conditions. Although it seems intuitive that the addition of gory details should increase the vividness of the state pathologist’s testimony, the results of the vividness measures do not bear this supposition out. However, intuition alone does not simply argue for the above hypothesis. Research on vividness suggests that additional concrete detail increases the vividness of the information (Bell & Loftus, 1985, 1988, 1989; Nisbett & Ross, 1980).

Given the paucity of significant effects for gruesome evidence on participants’ verdicts and verdict-related measures, some discussion of the power of Experiment 1 is warranted. The effect size of Douglas et al. (1997) was ascertained by dividing the chi-square value by the total number of participants and taking the square root to get an $r$ value (Cohen, 1988). For the effect of gruesome photographic evidence on mock juror’s verdicts, Douglas et al.’s $r = .26$. With 130 participants, the present experiment would have a power of .80 to detect an effect of a comparable effect size and given alpha of .05. Thus, low power does not appear to be implicated in the null effects obtained here.

**Effects on Mock-Jurors’ Sentencing Decisions**

Experiment 1 extended the study of the effects of gruesome evidence not only by including a new variable, that of gruesome, verbal information, but also in analyzing jurors’ sentencing verdicts. Although a few studies have examined the effects of gruesome evidence on jurors’ damage awards in civil trials (Oliver & Griffit, 1976; Whalen & Blanchard, 1982), no study has examined the effects of gruesome evidence on jurors’ criminal sentencing decisions in a capital trial. As mentioned in the introduction, controversy surrounds the introduction of
gruesome evidence, most notably gruesome, photographic evidence, in the guilt phase of a bifurcated trial (Bornstein & Nemeth, 1999; Fagan, 1993). During the penalty phase, however, the introduction of gruesome evidence by the prosecution to prove that the defendant committed a heinous act would not be surprising. In fact, the central concern, expressed by some legal scholars, regarding the introduction of gruesome photographs into evidence is that photographs depicting the victim provide no probative value to the jurors in determining whether the defendant did or did not commit the crime (Bornstein & Nemeth, 1999; Curriden, 1990; Douglas et al., 1997, Fagan, 1993). Yet, the same photographs could make a compelling argument for how serious the crime was if and after the defendant has been found guilty.

Surprisingly, the results of Experiment 1 showed no effect of gruesome evidence, be it photographic or verbal testimony, on jurors’ decisions to select the death penalty over life imprisonment. This null effect should be interpreted cautiously as all participants, regardless of whether they found the defendant guilty, were required to make sentencing decisions. Thus, although participants were to assume that the defendant had been found guilty of both charges and to evaluate the sentencing phase separately as if he were guilty, some participants may have been making their sentencing decisions in light of their knowledge and decisions from the guilt phase. Furthermore, analyses of the sentencing decisions for first-degree feticide were uninformative as most participants recommended sentences near the upper limit of 15 years. When analyzed according to verdict (i.e., guilty vs. not guilty), a marginal interaction did emerge between testimony condition and verdict. But the pattern of data was contrary to what would be predicted based on prior research investigating the biasing effects of gruesome evidence. Of those participants who found the defendant guilty of first-degree feticide, those who heard the
low gruesome testimony gave longer sentences than those who heard the highly gruesome testimony.

Given that emotional arousal has been implicated as the dominant theoretical explanation for how gruesome evidence may bias jurors’ decisions, further investigation of the role of jurors’ emotions on their decisions both in the context of gruesome evidence and independently seems a worthwhile pursuit. Experiment 2 was designed to address these issues.
Experiment 2

Experiment 2 was designed to explore further the relationship between jurors’ emotional states both independent of and within the context of gruesome photograph evidence. Most of the empirical work to date has suggested that graphic evidence may provoke an emotional response in jurors, thus biasing their decisions (Douglas, et al., 1997; Fishfader, et al., 1996; Oliver & Griffit, 1976; Whalen & Blanchard, 1982). However, there has been little discussion as to what specific emotional state is evoked by gruesome photographic evidence. Instead, most of the past studies have appealed to more of a global emotional arousal explanation. Early research on the influence of affective states on decision-making also focused on global mood states, typically in terms of negative and positive moods. However, within the last decade, researchers have begun to examine specific emotions. For example, research has begun to reveal that the emotions of anger and sadness, which had previously been lumped together under the catch-all category of a negative affective state, can have differential effects on participants’ decisions (Bodenhausen, et al., 1994; Keltner, et al., 1993; Lerner, et al., 1998; Semmler & Brewer, 2002).

To assess the impact of emotional arousal on jurors’ decision-making a single factor design was used. The experimental design consisted of four conditions: low gruesome photograph evidence/neutral emotion induction (LOW), low gruesome photograph evidence/sad emotion induction (SAD), low gruesome photograph evidence/anger emotion induction (ANGER), and high gruesome photograph evidence/neutral emotion induction (HIGH). Participants in the emotion induction conditions, either sadness or anger, were induced into the emotional state independent of the trial evidence. The neutral emotion induction conditions, either paired with low or highly gruesome photographic evidence, served as control conditions.
Thus, the logic behind the experimental design was that if the main underlying mechanism for the biasing effect of gruesome photographic evidence is emotional arousal, specifically either sadness or anger, then there should be no differences in verdicts between the emotional arousal condition(s) and the highly gruesome photograph control condition.

There is evidence to suggest that differential emotional states should affect jurors’ decision-making. Based on past research it appears that anger is most likely to have a biasing effect on jurors’ decisions. Lerner et al. (1998) found that anger-induced participants were likely to be more punitive in social judgment tasks than neutral emotion participants. From the studies which have sought to compare differences between anger and sad emotional states, it appears that the emotional state of anger may lead to less careful and systematic information processing. Within the context of a criminal trial, heuristic processing may lead to biases in jurors’ decision-making to the detriment of the defendant. It is hypothesized that anger-induced participants will be more likely to vote guilty than sad participants or control participants who view the low gruesome photographic evidence. If anger is the mediating factor in the biasing effect of gruesome photographic evidence, then there should be no differences in verdicts of guilt between anger-induced participants and participants who view the highly gruesome photographic evidence.

Method

Participants

Eighty-two University of Nebraska-Lincoln undergraduate students (33 males, 49 females) participated in the study in exchange for extra credit. Participants were randomly
assigned to one of four conditions: HIGH, LOW, SAD, and ANGER. Participants completed the study either individually or in groups ranging from 2 to 10.

The mean age of the participants was 21 years old. Of the 82 participants, 3 (3.7%) had been called for jury duty and only 1 (1.2%) had actually served on a jury.

Materials

The same trial stimulus and photographs that were used in Experiment 1 were used in Experiment 2. Likewise, the same POMS, pre-trial, verdict and post-trial questionnaires were used.

The emotion induction procedure was administered by having participants recall some recent life experience by writing a short narrative on the sheet provided. The emotion induction conditions varied with regard to the instructions given: participants in the sad condition were asked to reminisce and write about a recent event that made them feel very sad; correspondingly, participants in the anger condition were asked to reminisce and write about a recent event that made them feel very angry; participants in the low and high conditions were asked to write about the mundane events of the previous day. In all conditions, the instructions requested participants to be comprehensive, recalling as many concrete details as possible. The emotion induction procedure was modeled after a procedure utilized by Bodenhausen, et al. (1994) and Strack, Schwarz, and Gschneidinger (1985).

Procedure

On arriving at the lab, participants were told that they would be completing two experiments: they would complete a short experiment concerning emotion and memory first, before the main juror decision making study. As part of the ostensible first experiment, the
participants were asked to complete the POMS questionnaire (Time 1 administration). In addition, they were told that since the first “experiment” concerned the relationship between emotion and memory, to be honest in filling out the POMS questionnaire. Then, depending on the appropriate condition they were required to complete one of the emotion induction tasks. Participants were given 15 minutes to write their emotion narratives. Afterwards, participants were asked to fill out the POMS questionnaire again and to be honest in indicating how they felt (Time 2 administration). This second administration of the POMS was done in order to assess the success of the emotion-induction manipulation by comparing emotional feelings after the emotion induction procedure compared to baseline emotion levels.

After completing the “emotion and memory experiment,” participants were told that the main study, the juror decision-making study, would be conducted. Participants were given the pre-trial questionnaire and then were instructed to listen to the taped trial. As in Experiment 1, the experimenter paused the tape at the appropriate point in the trial and directed participants’ attention to the display of the photographs projected onto the screen. The photographs were presented for 10 s each at the conclusion of which the rest of the trial stimulus was played. Subsequently, the participants were given the verdict questionnaire, POMS questionnaire (Time 3 administration), and post-trial questionnaire to complete.

Results

Again, analyses were conducted using the conventional alpha level of .05. Specific p-values are reported only for marginal effects.
Voir Dire

Participants’ responses to the voir dire questions were used as the basis for classifying participants into excludable and death qualified groups as in Experiment 1. Participants’ responses indicated that 17.1% were Witherspoon excludables, 7.3% were Witt excludables, 2.4% were Automatic Death Penalty excludables, and 73.2% were death qualified. Given that the results did not differ between the death qualified sample and whole sample, all of the reported analyses were performed on the whole sample.

Manipulation Check

As in Experiment 1, correlations between Time 2 gruesome measures (i.e., how nauseated, disgusted, revolted, and sickened participants felt) were computed in order to justify collapsing responses to these individual adjectives into one measure of feelings associated with gruesomeness. Correlations between these terms ranged from $r(81) = .51$ to $r(81) = .72$. A univariate ANOVA on the difference scores between Time 2 and Time 1 responses to the gruesome measure failed to indicate any differences between the experimental conditions, $F(3, 77) = 1.11$, n.s. Participants who were in the highly gruesome photographs/neutral emotion condition responded no more strongly in terms of feelings associated with gruesomeness ($M = 1.19$, $SD = 1.54$) than participants in the low gruesome photographs/neutral emotion condition ($M = 1.81$, $SD = 2.96$), low gruesome photographs/anger emotion condition ($M = 2.05$, $SD = 3.94$), or low gruesome photographs/sad emotion condition ($M = 0.58$, $SD = 2.06$).

An analysis of participants’ yes/no responses to the question, “Did you experience any physical reactions (e.g., nervous stomach, sweaty palms, difficulty breathing) on viewing the photographs,” was conducted comparing participants who viewed the highly gruesome...
photographs to participants in the other conditions collapsed according to having viewed low gruesome photographs. A chi-square analysis indicated that a significantly greater proportion of participants who viewed the highly gruesome photographs responded yes (38%) to the aforementioned question than participants who viewed the low gruesome photographs (16%), $\chi^2(1, N = 82) = 4.29$.

Likewise, participants were collapsed into two groups, those who viewed highly gruesome photographs and those that viewed low gruesome photographs, and separate t-tests were performed on participants’ ratings of the level of detail and complexity of the photographs. Participants who viewed the highly gruesome photographs rated the photographs as more detailed ($M = 9.29, SD = 0.96$) than participants who viewed the low gruesome photographs ($M = 7.75, SD = 2.26$), $t(76.68) = -4.32$. There was also a marginal effect of photograph condition on participants’ ratings of the level of complexity of the photographs, $t(80) = -1.76$, $p = .08$. Participants who viewed the highly gruesome photographs judged the photographs as marginally more complex ($M = 7.81, SD = 1.69$) than participants who viewed the low gruesome photographs ($M = 6.81, SD = 2.39$).

To test the efficacy of the emotion-induction manipulation, analyses were performed on the difference scores on the anger-hostility and depression-dejection subscales of the POMS questionnaire between Time 2 and Time 1 administrations. In addition, participants’ responses to these two subscales in the LOW and HIGH conditions were collapsed to form a single neutral emotion condition. Emotion induction had a significant effect on participants’ anger-hostility difference scores, $F(2, 79) = 10.17$. A Tukey post-hoc test indicated that participants given the angry memory instructions had larger anger-hostility difference scores ($M = 6.65, SD = 7.66$)
than participants given the neutral memory instructions ($M = -0.02, SD = 4.00$). However, participants given the angry memory instructions did not differ in terms of anger-hostility difference scores from the participants who were given the sad instructions ($M = 5.35, SD = 7.89$). Regarding the depression-dejection difference scores, emotion induction also had a significant effect, $F(2, 79) = 11.06$. A Tukey post-hoc test indicated that participants given the sad memory instructions had larger depression-dejection difference scores ($M = 5.35, SD = 6.38$) than participants given the neutral instructions ($M = -1.60, SD = 4.88$) or anger memory instructions ($M = 0.40, SD = 5.56$). In other words, the anger-induction procedure was successful in making participants angry, but the sad-induction procedure was less successful in that participants were made sad and angry.

The emotion induction procedure had no effect on participants’ difference scores for the tension-anxiety subscale of the POMS, $F(2, 79) = 2.08$, n.s.

**Emotional Arousal Analyses**

To determine whether the photographs provoked an emotional reaction in the participants, an analysis of Time 3 - Time 2 administration of the POMS collapsed across photograph conditions (i.e., low vs. highly gruesome photographs). Separate $t$ tests failed to indicate any effects of the photographs on the tension-anxiety, depression-dejection, and anger-hostility subscales of the POMS, $t(62.67) = 1.42$, $t(80) = 0.19$, $t(80) = -0.20$, respectively, all n.s.
Verdict Analyses

The percentage of guilty verdicts and mean likelihood of commission estimates for first-degree murder and first-degree feticide by experimental condition are presented in Table 5.8 A chi-square analysis of verdicts for first-degree murder failed to indicate any differences between the experimental conditions, $\chi^2(3, N = 82) = 3.55$, n.s., although the pattern of results was in the predicted direction. Participants in the HIGH condition were no more likely to find the defendant guilty of first-degree murder (33%) than participants who were in the LOW condition (24%), ANGER condition (45%), or the SAD condition (20%). An analysis of verdicts for first-degree feticide also failed to detect any differences between the experimental conditions, $\chi^2(3, N = 82) = 3.53$, n.s., although the pattern of results was also in the predicted direction. Verdicts for first-degree feticide virtually mirrored verdicts for first-degree murder with one exception: 29% rather than 33% of participants in the HIGH condition found the defendant guilty. For both charges, the pattern of guilty verdicts followed predictions that ANGER participants would be more likely find the defendant guilty than LOW or SAD participants.

Consistent with the dichotomous guilt verdicts, analyses of the continuous measure analogs failed to indicate differences between the experimental conditions. On the combined verdict and confidence measure for first-degree murder, a univariate ANOVA revealed no differences between the experimental conditions, $F(3, 78) = 0.85$, n.s. Similarly, there was no effect of the experimental conditions on participants’ estimates of how likely the defendant committed first-degree murder, $F(3, 78) = 0.97$, n.s. Finally, participants in the different

---

8 As in Experiment 1, analyses were also conducted on the total number of guilty verdicts (i.e., 0 - 2) but did not affect the pattern of results.
Table 5.

Percentage of Guilty Verdicts and Mean Likelihood of Commission Estimates by Experimental Condition for Both Criminal Charges, Experiment 2

<table>
<thead>
<tr>
<th>Experimental Condition</th>
<th>HIGH</th>
<th>LOW</th>
<th>ANGER</th>
<th>SAD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guilt</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Murder</td>
<td>33%</td>
<td>24%</td>
<td>45%</td>
<td>20%</td>
</tr>
<tr>
<td>Feticide</td>
<td>29%</td>
<td>24%</td>
<td>45%</td>
<td>20%</td>
</tr>
<tr>
<td>Commission Estimates</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Murder</td>
<td>64.05</td>
<td>59.05</td>
<td>67.00</td>
<td>53.75</td>
</tr>
<tr>
<td></td>
<td>28.71</td>
<td>24.93</td>
<td>26.43</td>
<td>25.69</td>
</tr>
<tr>
<td>Feticide</td>
<td>62.14</td>
<td>59.52</td>
<td>66.38</td>
<td>57.50</td>
</tr>
<tr>
<td></td>
<td>31.41</td>
<td>28.19</td>
<td>30.00</td>
<td>28.45</td>
</tr>
</tbody>
</table>

conditions did not differ with respect to conviction threshold estimates, $F(3, 78) = 0.93$, n.s. This pattern of findings was consistent with the same measures applied to the charge of first-degree feticide. The experimental conditions had no effect on participants’ combined verdict and confidence measure, likelihood of commission estimates, or conviction threshold estimates, $Fs(3, 78) = 0.74, 0.34, and 0.72, respectively, all n.s.

Sentencing Analyses

As in Experiment 1, all participants made sentencing decisions regardless of whether they had found the defendant guilty or not. A chi-square analysis of sentence verdicts for first-degree murder indicated a marginally significant effect of the experimental conditions, $\chi^2(3, N = 80) = 6.54, p = .09$. Participants in the HIGH condition were marginally more likely to decide on the death sentence for the defendant (38%) than participants in the LOW condition (21%), ANGER
condition (25%), or SAD condition (5%). A second analysis of the sentence decisions for first-degree murder was conducted with guilty verdicts collapsed across photograph conditions (i.e., low gruesome versus highly gruesome). Participants who viewed the highly gruesome photographs were more likely to decide on death (38%) than participants who viewed the low gruesome photographs (17%), \( \chi^2(1, N = 80) = 3.97 \).

As in Experiment 1, participants’ mean sentencing verdicts for first-degree feticide were near the maximum allowable sentence with most participants giving the maximum sentence. Thus, Experiment 2 appeared to show a ceiling effect for participants’ sentencing verdicts for first-degree feticide as in Experiment 1. As such, the experimental conditions had no effect on participants’ sentencing verdicts for first-degree feticide, \( F(3, 73) = 0.15 \), n.s. Participants in the HIGH condition gave similar sentence verdicts for first-degree feticide (\( M = 13.33, SD = 3.59 \)) as participants in the LOW condition (\( M = 13.50, SD = 3.55 \)), ANGER condition (\( M = 13.95, SD = 2.09 \)), and SAD condition (\( M = 13.40, SD = 3.02 \)).

**Analyses of Perceptions of Gruesome Evidence**

Analyses of participants’ responses to the questions how much did and should the photographs influence their verdict decisions yielded no significant effects, \( F(3, 78) = 0.26 \) and \( F(3, 78) = 1.38 \), respectively, both n.s.

---

9Participants’ capital sentences were also analyzed for death-qualified participants only. With the death-qualified sample, the effect of the experimental condition was no longer marginal, \( \chi^2(3, N = 64) = 5.70 \), n.s. However, collapsed across photograph condition, participants who viewed the highly gruesome photographs were more likely to decide on the death sentence (42%) than participants who viewed the low gruesome photographs (18%), \( \chi^2(1, N = 64) = 4.22 \). This significant finding did not change between the total and death-qualified samples.
Also, there were no differences between the experimental conditions in participants’ responses to how much they believed they *had been* and *could be* a fair and impartial juror given the photographic evidence presented in the current simulated trial, \(F(3, 78) = 0.93\) and \(F(3, 78) = 1.06\), respectively, both n.s.

**Analyses of Participants’ Memory for Trial Evidence**

As in Experiment 1, I analyzed participants’ memory of the trial evidence via the number of correct responses to a cued-recall test. Also separate analyses were performed on the overall test, the questions concerning details central to the prosecution’s case, and the questions concerning details central to the defense’s case. There was no effect of experimental condition on participants performance on the overall memory test, \(F(3, 77) = 0.92\), n.s. Likewise, the analyses of participants’ memory for the specific details central to either the prosecution’s or defense’s case failed to indicate any significant effects of the experimental conditions, \(F(3, 77) = 0.79, 1.05\), respectively, both n.s.

**Analyses of Authoritarianism**

Analyses were performed on the verdict and verdict-related measures with authoritarianism as a covariate. Analyses of participants’ dichotomous verdicts for first-degree murder and first-degree feticide failed to indicate any differences between experimental conditions with authoritarianism included as a covariate, \(B = -.09, B = -.02\), respectively, both n.s.

Including authoritarianism as a covariate had no effect on whether the experimental condition affected the continuous verdict measures (i.e., combined verdict and confidence and
likelihood of commission ratings for both first-degree murder and first-degree feticide), $F_{s}(3, 77) < 0.71$, all n.s.

**Discussion**

**Effects on Mock Jurors’ Verdicts**

Contrary to what I predicted, the results failed to indicate an effect of induced emotion on mock jurors’ guilt verdicts compared to two neutral emotion conditions: one in which participants viewed low gruesome photographs and one in which participants viewed highly gruesome photographs as part of the prosecution’s case against the defendant. The lack of effects was evident in both the dichotomous guilt verdicts and the continuous measures of guilt (i.e., combined verdict and confidence measures and likelihood of commission estimates).

A growing body of research suggests that people who are angered are more likely to make more heuristic based judgments— that is, they are less likely to process information systematically and are prone to brash judgments compared to people who are in a neutral emotion or who are saddened (Bodenhausen et al., 1994; Lerner et al., 1998, Semmler & Brewer, 2002). For instance, Bodenhausen et al. found that participants who were induced to feel angry were more likely to use racial stereotypes in a social judgment task and were more influenced by the credibility of the speaker in a persuasion task than participants in a neutral emotional state or who were induced into a sad emotional state. In addition, research aimed at exploring the differential effects of sadness as opposed to anger, has found that people who are sad tend to make more systematic judgments, characteristic of more careful, effortful processing compared to people who are in a neutral emotion or who are angered (Bodenhausen, Gabriel, & Lineberger, 2000; Bodenhausen et al., 1994; Semmler & Brewer, 2002).
The major prevailing model of emotion and judgment, the AIM, suggests that emotion is likely to be “infused” with judgment when the decision maker is engaged in a judgment task that requires substantive processing (Forgas, 1994, 1995). Thus, judgment tasks that are complex, require a judgment of a novel situation, and emphasize the accuracy of the judgment are tasks in which emotion is likely to hold sway in the decision maker’s judgment. The types of judgment tasks that are required of jurors would appear to fit well within the AIM’s definition of a task requiring substantive processing.

Although both the AIM and research indicating the differential effects of anger and sadness on systematic processing suggest that emotion would affect jurors’ verdicts, the findings of Experiment 2 failed to indicate any effects of emotion on jurors’ verdicts or verdict-related measures. While the percentages of guilty verdicts appear to be in the predicted direction, with participants in the anger-induction condition more likely to find the defendant guilty than participants in the sad or neutral induction conditions, this pattern was not realized nor significant in the continuous guilt measures. These null effects were present despite the apparent success of the emotion induction procedure, at least with regard to the anger-induction condition. The sadness-induction procedure did, in fact, produce greater scores on participants’ responses to the depression-dejection subscale of the POMS than anger-induction participants and neutral-induction participants; however, the sadness-induction procedure also increased participants’ reported anger such that their reported level of anger did not differ from participants given the anger-induction procedure.

Given the numerical trend in the predicted direction but lack of statistically significant results, Experiment 2 may lack the power to detect the effect of specific emotions on jurors’
judgments. Computing $r$ by dividing the chi-square value, from the first-degree murder analysis, by the total number of participants and then taking the square root indicated a value of .21. To have power of .80 with an alpha rate of .05, 191 total participants would need to be run. Thus, subtracting the 82 participants in Experiment 2 from the total indicates that an additional 109 participants would need to be run.

**Effects on Mock Jurors’ Sentence Decisions**

Interestingly, although the effect was marginal, the experimental conditions had an effect on participants’ sentence decisions of whether to recommend the death sentence for first-degree murder. There appears to be an effect of the photographs such that participants in the HIGH condition recommended the death sentence more often than participants in the other conditions. This pattern was significant when participants were collapsed across photograph condition (i.e., low vs. highly gruesome photographs). Thus, Experiment 2 departs from Experiment 1 in showing that highly gruesome photographs can have their intended effect of impressing upon jurors the heinousness of a murder and affecting judgments of death. However, the results are inconsistent with those of Lerner et al. (1998), who found that participants made to experience an angry emotional state were more punitive in a social judgment task than participants in a neutral emotional state. The percentage of participants who voted for death in the ANGER condition was similar to the percentage of participants voting for death in the LOW condition.
General Discussion

The two experiments presented here were undertaken with the purpose of addressing two main questions: 1) how robust is the biasing effect of gruesome photographic evidence and 2) does the emotional arousal hypothesis satisfactorily explain the biasing effect of gruesome photographic evidence. In reference to the first question, the few empirical studies that directly compared conditions in which jurors view either gruesome photographs (including gruesome videos) or no photographs/neutral photographs have found mixed results. As discussed previously, the strongest evidence of a prejudicial effect of gruesome photographic evidence comes from the study of Douglas et al. (1997). Other studies (e.g., Kassin & Garfield, 1993; Oliver & Griffit, 1976) failed to find direct effects on jurors’ verdicts. Thus, there was a need to replicate the results of Douglas et al., especially in light of their methodology of including lesser charges and analyzing results in terms of total number of guilty verdicts. Experiment 1 was also designed to address an extension to the question of replication: Does the prejudicial effect of photographic evidence generalize to other gruesome evidence, such as testimony from a pathologist or medical examiner?

Unfortunately, the answers to these questions are not discernable given the befuddling data. First, null findings concerning the impact of gruesome evidence, be it photographic or verbal, are not uninteresting because they suggest that the concern that has been expressed over the prejudicial effect of such stimuli on jurors’ decisions may be overstated. However, the present data are not clear and convincing with regard to the interpretation of the null effects on verdicts and verdict-related measures. Although Experiment 1 appears to have enough power to detect an effect, the failure of the manipulation check to indicate that the photograph and
testimony conditions were perceived differently in terms of gruesomeness suggests that the manipulation was relatively weak. Thus, it is questionable whether the null effects of Experiment 1 are very informative.

Second, the lack of any strong indication that gruesome evidence evoked an emotional reaction in participants also limits the informativeness of the null findings. Based on the findings of Douglas et al. (1997) and hypotheses offered by other researchers studying gruesome evidence, who emphasize that such evidence may exert its effects through emotional reactions, the null effects of Experiment 1 could be explained as a failure of the evidence to produce this emotional arousal. The only indication that participants perceived the levels of gruesome evidence differently comes from their responses to the question of whether they experienced any physical reactions upon experiencing the evidence. A significantly greater proportion of participants who experienced the highly gruesome conditions responded “yes” to this question compared to participants who experienced the low gruesome or control conditions. Although research has indicated that emotional reactions that are the result of viewing gruesome photographs are reliably accompanied by physical reactions (Lang, Greenwald, Bradley, & Hamm, 1993; Livesay & Porter, 1994), there did not appear to be any relationship between emotional and physical reactions here.

Finally, another difference between Experiment 1 and the study by Douglas et al. was how emotional reaction was measured. I used the POMS as it is a validated scale and has been used by other researchers to measure the emotional changes in college students as they watched a gruesome video clip (Pillard and Fisher, 1967, as cited in McNair et al., 1992). Douglas et al. contrived their own measures to assess participants’ emotional reactions; however, an
examination of both emotion measures fails to reveal any glaring differences between the two. For example, Douglas et al. simply had participants rate to what extent they felt anxious, stressed, anguished, sad and so forth along a 10-point scale, whereas the POMS has participants’ rate how they feel by indicating how much various emotionally valenced adjectives describe them at that moment (i.e., the “right now” iteration of the POMS). Fishfader et al. (1996) used the POMS to measure participants emotional reactions to trial stimuli presented either as a written transcript, videotaped testimony, or videotaped testimony with a video recreation. They found differences on the POMS (measuring a total “mood disturbance score” by summing all of the subscales minus the vigor-activity subscale) but failed to find any other related effects on mock jurors’ verdict decisions. Kern et al. (2002) indicated that the relationship between mock jurors’ verdict decisions and measures of emotional arousal may vary depending on the measure of emotion used. Nonetheless, there is consistency in Experiment 1 between the gruesome measures and the POMS. Neither indicated that participants were much affected by the different levels of the manipulated variables, despite the indication of greater physical reactions in those who viewed or heard the highly gruesome evidence as compared to those who viewed or heard the low gruesome evidence.

Interestingly, while there was no indication of differences in perceived gruesomeness or in emotional reactions, participants did perceive the levels of the photographic evidence differently (testimony conditions much less so with only a marginal difference in level of detail) according to the level of detail and complexity. As a measure of vividness, the results failed to indicate any effects on jurors’ verdicts or verdict-related decisions as would be predicted by the work of Reyes et al. (1980) and Wilson et al. (1989).
One additional limitation to the present research concerns the potential interaction between the race of the victim (i.e., black) in the case used here and the race of the majority of the participants (i.e., white). In a meta-analysis of mock juror research, Mazzella and Feingold (1994) found a weak but significant effect of victim’s race on judgments of punishment. Mock jurors recommended harsher punishments for defendants when the victim of the crime was white rather than black. Thus, the weak effects of the present research may be due to participants’ perceptions of the victim. Future research should assess the effect of gruesome evidence as a function of mock jurors’ and victims’ race.

There are a few avenues of future research to pursue that would potentially clarify the muddled findings here. First, given the length of the trial, perceptions of gruesomeness and the level of emotional reaction may be “buried” amongst other information. The gruesome evidence used in the experiments presented here may have more of an effect in a shorter trial. If so, it may seem that trial length would limit how well the impact of gruesome evidence can be generalized to real trials, as real trials are likely to be quite complex and relatively much more lengthy. However, trial length has typically not been found to be moderator of treatment effects in jury simulation trials. For instance, Kramer and Kerr (1989) found that trial length had no effect in reducing the biasing effects of pretrial publicity. In addition, gruesome evidence is likely to be more intense in a real trial, as it would likely not be as far removed from the emotional content of the trial itself as it was in the present experiments.

Second, given the findings of Kern et al. (2002), additional measures of emotional arousal as well as measures of perceived gruesomeness should be used. Different measures may yield different effects. For example, there may be a qualitative difference between asking someone
how repulsed, disgusted, and sickened they felt versus a more pointed question that asks explicitly how gruesome they thought the photographs were. The same may be said for measures of emotional arousal. Some measures may be more sensitive than others, although questions of validity may arise. In addition, physiological measures may be a worthwhile approach to take to measure emotional arousal as prior research has indicated that self-reported measures of emotional arousal and physiological measures of arousal are reliably related (Lang et al., 1993; Livesay & Porter, 1994).

On visual inspection, the differences between the emotion-induction conditions in terms of dichotomous verdicts, regardless of charge, appear to be in the predicted direction. Participants in the ANGER condition were more likely to convict than participants in the NEUTRAL or SAD conditions. However these differences were not statistically significant. In addition, visual inspection of the means of the continuous verdicts shows less of a difference but still in the right direction. The lack of effects is peculiar given the predictions based from the major model of emotion and decision-making, Forgas’s (1994, 1995) AIM. An examination of empirical research that has studied the relative effects of anger and sadness in comparison to some neutral emotion condition on social judgment tasks, may reveal some possible answers as to the failure to find any effects of emotional arousal in Experiment 2.

To date, the study by Semmler and Brewer (2002) is the only one that has directly investigated the effects of specific emotions on jurors’ decisions. Although they found that sadness affected how well mock-jurors detected inconsistencies in testimony, they did not find any direct effects of emotion induction on mock-jurors’ verdict decisions. Furthermore, Semmler and Brewer potentially confounded gruesome testimony with emotional arousal, as
emotion was manipulated by providing more detail regarding the physical and psychological trauma suffered by the parties in the sad condition than the neutral emotion condition. In this respect, their results are consistent with the null effect of testimony condition in Experiment 1.

The studies by Bodenhausen et al. (1994), Keltner et al. (1993) and Lerner et al. (1998) show that anger and sadness can have effects on various social judgment tasks, but how well these different types of social judgment tasks generalize to juror-simulation studies is questionable. For instance, Bodenhausen et al. (1994) had participants imagine that they were a member of a peer review board investigating the alleged misconduct of a fellow student. They were asked to indicate how guilty they thought the student was by rating guilt on a 10-point scale. On the surface, this social judgment task appears to match fairly closely the judgments made by participants in juror-simulation studies. However, there is no provision in the procedure used by Bodenhausen et al. for instructions on the burden of proof or other procedural elements of a trial, unlike what would be provided in a juror-simulation study. In addition, Bodenhausen et al. found a significant interaction between emotional arousal and stereotypes, not a direct effect of emotion on judgment. Similarly, Lerner et al. provided various vignettes to participants which described some kind of negligent action (e.g., a car salesman sells a car that he knows is defective and results in an injury). Participants were asked to answer several questions used to assess punitiveness. For example, participants were asked to indicate how blameworthy, irresponsible, reckless, and negligent they thought the offending party was as well as how much money they thought should be paid to offset the pain and suffering by the victim. Again, on the surface, these types of judgments appear to mirror juror decisions well, but on closer examination, they differ a great deal. As already mentioned, these judgment scenarios did not
include the procedural elements of a jury trial that would be present in a juror-simulation study. However, perhaps the more important difference between vignette studies and juror-simulation studies is the lack of testimony and cross-examination within the adversarial forum of a trial in the vignette studies. These substantive differences between vignette studies and juror-simulation studies may be one of the reasons why the predicted effects of emotional arousal failed to occur in Experiment 2.

The third avenue of research that could potentially clarify the impact of gruesome evidence on juror decision making is to manipulate the strength of the evidence against the defendant. Although the conviction rate of the two studies presented here was not at floor, the rate was still fairly low (35%). Given the fairly low commission estimates (mean . 62.00), the case against the defendant can be characterized as relatively weak. If the case against the defendant were strengthened, gruesome evidence may then be more likely to influence jurors’ verdicts. Although horrific, the gruesome evidence as presented in Experiment 1 and Experiment 2 may not have been enough to “push” the mock jurors into a verdict of guilt given the relative uncertainty of whether the defendant committed the crime. With a stronger case against the defendant, gruesome evidence may be more likely to implicate the defendant and push verdicts to guilty.

In conclusion, the two experiments presented here failed to indicate any strong effects of gruesome evidence, either presented via photographs or through verbal testimony, on mock jurors’ verdict decisions. Although gruesome testimony had an effect on participants’ likelihood of commission estimates when gender or authoritarianism was included as a covariate, the effect was still relatively unimpressive and did not translate to dichotomous verdicts. The controversy
over the admission of gruesome photographic evidence during the guilt phase of a capital trial (Curriden, 1990; Douglas et al., 1997; Fagan, 1993) may not be as important a concern given the present findings, especially in light of the lack of effects on participants’ verdicts and the effect of gruesome photographs on participants’ willingness to impose the death sentence in Experiment 2. However, the null findings need to be interpreted cautiously as key manipulation check measures failed to indicate differences in perceived gruesomeness or in mock jurors’ emotional reactions to the gruesome evidence. Further research will be necessary in order to clear up the limitations of the current and previous studies.

Besides the lack of effects of gruesome evidence on mock jurors’ judgments, Experiment 2 also failed to find strong effects of emotion on mock jurors’ decisions. Despite theoretical models to the contrary (Forgas, 1994, 1995; Paulhus & Lim, 1994), the specific emotions of anger and sadness failed to have any effects on verdicts. As emotion is often implicated in juror decisions (Douglas et al., 1997; Fishfader et al., 1996; Oliver & Griffit, 1996; Posner, 2001, Semmler & Brewer, 2002), further exploration into the factors of a jury trial that interact with emotion is needed in order to determine what the constraints are of the relationship between jurors’ emotions and the decisions they make.
References


Kuntzelman v. Black, 774 F.2d 291 (8th Cir. 1985).


United States v. Goseyun, 789 F.2d 1386 (9th Cir. 1987).

United States v. Soundingsides, 820 F.2d 1232 (10th Cir. 1987).


Baliff: All rise the honorable Judge Johnson presiding. The state of LA vs. Donald Watson.

Judge: Please be seated. Court is now in session. We have before us criminal case No. 94-145, The State of Louisiana v. Donald Watson. The defendant, Mr. Donald Watson, has been charged with the crimes of 1st degree murder and 1st degree feticide.

You are further advised that the defendant has appeared in this court and has entered a plea of not guilty to both charges.

I note, for the record, that Celeste Lincourt is here as the prosecuting attorney and Anne Winsor is here representing the defendant, Donald Watson.

All right, Ms. Lincourt, you may proceed with your opening argument.

**Opening Arguments**

Lincourt: Thank you, your honor. Good morning ladies & gentlemen of the jury. The state of Louisiana accuses Mr. Watson of murdering his ex-wife Andrea Watson and their unborn child. Donald and Andrea had been divorced for 6 months and were currently in a custody battle over their five year old son, Jacob.

However, before I go into the details of the murder I’d like to talk to you a little bit about Donald Watson. Mr. Watson is a very abusive man. I have witnesses who will testify that Mr. Watson physically abused Andrea during their marriage, and even after their divorce. Mr. Watson even made constant threats on Andrea’s life. He was abusive, controlling, and dangerous. Mr. Watson was frustrated about the custody battle over Jacob and the fact that he was being forced to pay $300 a month in child support, which would double with a new baby. Also, he believed Andrea was unfaithful to him during their marriage. Debra James, Andrea’s mother, will testify that she heard Mr. Watson tell Andrea that he would kill her and the baby, if he found out the baby was not his.

Now lets go to the night of the murder. On November 19, Andrea was found dead in her home, shot six times. When the police arrived at the house they found the front door locked, and the basement window broken. Now the defense will try to say that this makes the crime scene look like a burglary. However, nothing was disturbed in the basement. Also, Donald’s fingerprints were found in the house. Mr. Watson’s alibi is that he was at home with his son Jacob. Although Mr. Watson and his son slept in the same bed, no evidence proves that Mr. Watson remained in his home for the duration of the night. I will show that Mr. Watson’s alibi is not solid and that he had ample opportunity to murder his wife.
You might ask yourself what would motivate a man to kill his ex-wife and their unborn child. Well about a month ago Andrea began dating a man from work, and this is the same man Donald accused her of having an affair with while they were married. Donald’s motive was pure jealously and with his history of abuse it is easy to see him committing such a violent act. He had a motive, access to Andrea’s house, and a history of abuse.

Judge: Thank you, Ms. Lincourt. Ms. Winsor, you may make your opening statement.

Winsor

Defense: Thank you, your honor. [sarcastically] Wow, that was a pretty convincing argument, wasn’t it? There are some holes in the prosecution’s theory. There is no evidence that proves beyond a reasonable doubt that Donald Watson committed these murders. Yes, Donald’s fingerprints were in the house. But, of course, he used to live there prior to their divorce. Donald even has a key to Andrea’s house and he was there that same day to pick up their son. Those prints are not proof of murder, they are only proof that Donald used to live in that house. The police have found no murder weapon, and there is evidence of a break in. The basement window was broken. Now the prosecution wants you to believe that Donald used his key and entered the house, murdered Andrea, broke the basement window to make it look like a burglary, and finally locked the front door on his way out. This theory is very far fetched. There is no possible way Donald could have done all this and made it home before the police arrived, not to mention without waking his son, Jacob. To show further that the prosecution’s theory is wrong I will also call witnesses who will testify that Donald remained at home the night of the murder.

Ladies and gentlemen of the jury, my client is innocent. He is a loving father, and even if he did harbor hard feelings towards Andrea he would never hurt his unborn child. He was extremely excited about a new baby. Now the prosecution believes that since Donald was once abusive to Andrea, that he is capable of killing her. Donald admits that he was not the best husband to Andrea, he knows what he did to her was wrong. Donald is even seeking treatment to control his anger. He attends a self help group three times a week. A person’s mistakes in the past can not be used as an indicator for their actions in the future. Donald knew he had a problem, and he got help. Donald was not jealous of Andrea, and he was not frustrated about paying child support. He used to send Andrea the money a week before he was required. Donald Watson is innocent. All the evidence against him is strictly circumstantial. He has an airtight alibi, no motive, and there is no evidence that proves beyond a reasonable doubt that he committed these murders.

Prosecution Witnesses

Lincourt: Your honor the prosecution calls Mary Simpson to the stand.

Judge: Ms. Simpson, do you solemnly swear to tell the truth, the whole truth, and nothing but the truth so help you God?
Simpson: I do.

Lincourt: Would you please state your name and profession for the record?

Simpson: My name is Mary Simpson and I am a counselor at the Family Violence Protection Center.

Lincourt: How did you know Andrea Watson?

Simpson: I counseled Andrea for two years.

Lincourt: Ms. Simpson would you tell the jury why Andrea was seeking counseling?

Simpson: She was seeking counseling because she was being abused by her husband.

Lincourt: Donald Watson?

Simpson: Yes

Lincourt: So did you ever see evidence of abuse such as black eyes or bruises?

Simpson: She had bruises all the time and about a month before they divorced she had to go to the hospital because Donald had broken a few of her ribs.

Lincourt: Did Andrea ever say she was scared of Donald?

Simpson: Yes, she said he lost his temper very easily and his anger was so uncontrollable that she feared what he could do to her.

Lincourt: Did she ever mention any reasons why Donald would beat her, or get angry at her?

Simpson: Andrea told me that Donald was very jealous of her, and very controlling.

Lincourt: Did Andrea ever mention why she decided to leave Donald?

Simpson: Oh yes, she told me that she decided to leave Donald because she was beginning to fear for her safety as well as Jacob’s.
Lincourt: Thank you Mrs. Simpson. No further questions your honor.

Judge: Ms. Winsor, your witness.

Winsor: Thank you your honor. Ms Simpson did Andrea continue to seek counseling after she got divorced?

Simpson: No I haven’t heard from her since the divorce.

Winsor: So you have no idea if Donald was still abusive after they were separated?

Simpson: No.

Winsor: Tell me, have you ever met Donald Watson?

Simpson: No.

Winsor: Did Andrea ever say if Donald was a good father to Jacob?

Simpson: Yes, she said he was a very good father to Jacob. She said that was the main reason she stayed with him for so long.

Winsor: Thank you. I have no further questions, your honor.

Judge: You may step down Ms. Simpson. Ms. Lincourt you may call your next witness.

Lincourt: Your honor the prosecution calls Debra James to the stand.

Judge: Ms. James, do you solemnly swear to tell the truth, the whole truth, and nothing but the truth so help you God?

James: I do.

Lincourt: Ms. James would you please tell the court your relationship with Andrea Watson?

James: I am her mother.
Lincourt: Mrs. James did you ever witness Mr. Watson physically abusing your daughter?

James: Yes.

Lincourt: After they were married?

James: Before and after.

Lincourt: You witnessed Donald abusing your daughter even before they were married?

James: Yes, and I told her not to marry him, I was afraid for her life.

Lincourt: Did you ever witness a fight in which Donald threatened your daughter’s life?

James: Yes about a month ago. He said that if he found out the baby was not his he’d kill her and the child.

Lincourt: At that time did you believe he was serious?

James: Yes.

Lincourt: Do you think Donald is capable of murder?

James: Yes I do.

Lincourt: Ms. James did you go to your daughter’s house after the murder?

James: Yes.

Lincourt: Did you find anything missing from her house?

James: No, nothing was missing.

Lincourt: So it did not appear that her house had been burglarized?

James: Not to me.
Lincourt: Thank you. No further questions.

Judge: Ms. Winsor, your witness.

Winsor: Thank you your honor. Ms. James how do you feel about Donald Watson?

James: I have never cared for him much.

Winsor: And how was your relationship with your daughter?

James: There was a lot of tension between us.

Winsor: Why was that?

James: She always resented the fact that I disliked Donald and I did not want her to marry him.

Winsor: Why would she resent you? It was Donald who was abusing her?

James: She said they had their good moments and he was a great father to Jacob.

Winsor: Do you think he is a good father to Jacob?

James: He may have been good to Jacob, but he’s not a good example for him.

Winsor: Thank you Ms. James. I have no further questions.

Judge: You may step down, Ms. James. The prosecution may call its next witness.

Lincourt: I call Paul Hulsman your honor.

Judge: Mr. Hulsman, do you solemnly swear to tell the truth, the whole truth, and nothing but the truth so help you God?

Hulsman: I do.

Lincourt: Mr. Hulsman you live next door to Andrea Watson is that correct?
Hulsman: Yes I do.

Lincourt: Could you describe for the court what you heard on the night of the murder?

Hulsman: Around 1 a.m., I was woken up by noises that sounded like gun shots. I immediately called 911 and notified the police.

Lincourt: Mr. Hulsman did you know Donald and Andrea before they were separated?

Hulsman: No, not really. Donald was very possessive of his wife, and I really did not get to know Andrea until after the divorce.

Lincourt: So you and Andrea became friends after Donald was out of the picture?

Hulsman: Yes.

Lincourt: Would you say that Andrea was happier after the divorce?

Hulsman: Yes she was very happy. Happier than I ever saw her when she was married.

Lincourt: Do you know if Andrea was dating anyone after the divorce?

Hulsman: Yes, she was dating a very nice man she worked with.

Lincourt: Thank you Mr. Hulsman. No further questions, your honor.

Judge: Ms. Winsor, your witness.

Winsor: Thank you, your honor. Mr. Hulsman were you ever romantically involved with Ms. Watson?

Hulsman: No. We were just neighbors.

Winsor: You testified that Andrea was dating someone from her work is that correct?

Hulsman: Yes.
Winsor: Did she ever know how Donald felt about this relationship?

Hulsman: She never said nothing.

Winsor: Thank you, your honor. I have no further questions, your honor.

Judge: You may step down, Mr. Hulsman. Ms. Lincourt you may call your next witness.

Lincourt: Your honor the prosecution calls Officer Thomas Owens.

Judge: Officer Owens, do you solemnly swear to tell the truth, the whole truth, and nothing but the truth so help you God?

Owens: I do.

Lincourt: Officer Owens you were the first to report to the scene of the crime is that correct?

Owens: Yes, that’s correct.

Lincourt: Could you describe the scene of the crime to the jury?

Owens: The front door of the house was locked, and I had to break in. I then proceeded to search the house. When I entered the bedroom, I saw the victim shot to death, and I called for back up.

Lincourt: Were any fingerprints of the defendant found in the house?

Owens: Yes.

Lincourt: Officer did you question Donald about the murder?

Owens: Yes I did. I questioned both Donald and his son.

Lincourt: Could you please describe to the court the questions you asked Donald?

Owens: Well I first told him that Andrea was found murdered. Then after that he invited me inside and I asked him where he was last night.
Lincourt: And what did he say?

Owens: He said that he and Jacob stayed home all night and watched movies. Then they went to bed. Jacob confirmed that they watched movies and said he and his dad went to bed at the same time.

Lincourt: Did you ask Mr. Watson when was the last time he saw his ex-wife?

Owens: Yes he said he had gone over earlier to pick up Jacob, and that was the last time he saw Andrea.

Lincourt: Thank you Mr. Hulsman. No further questions your honor.

Judge: Your witness, Ms. Winsor.

Winsor: Officer Owens you stated that when you arrived at the crime scene the front door was locked?

Owens: Yes.

Winsor: Wasn’t the basement window broken as well?

Owens: Yes it was.

Winsor: You also stated that you found Donald’s fingerprints in the house?

Owens: Yes.

Winsor: Where were Donald’s prints found?

Owens: They were found all over the house.

Winsor: Were they in the basement?

Owens: No.

Winsor: Were they near the broken window?
Owens: No. None were found near the window.

Winsor: What time did you arrive at Donald’s house when you went to question him?

Owens: It was around 2:30 a.m.

Winsor: Did it look like Donald had been sleeping?

Owens: He appeared to have been.

Winsor: How did Mr. Watson react when you told him that his ex-wife was dead?

Owens: He looked shocked when I told him Andrea had been killed, and he got especially upset when I told him the fetus was dead as well.

Winsor: Officer Owens let’s go back to the crime scene for a moment. Does the fact that the basement window was broken and the front door locked raise the possibility that this could have been a robbery gone wrong?

Owens: Yes, the physical evidence is consistent with a robbery.

Winsor: Could the investigation determine whether the window was broken from the inside?

Owens: No, they were not able to determine if the window had been broken from the inside or the outside.

Winsor: Thank you officer. No further questions.

Lincourt: Your honor, I’d like to redirect the witness.

Judge: Go ahead, prosecutor.

Lincourt: Officer Owens, were any other suspicious fingerprints found in the house?

Owens: No. No other unidentified fingerprints were found.

Lincourt: Did it appear that any valuable items were missing?
Owens: There was no clear indication that anything valuable was missing.

Lincourt: Thank you. No further questions.

Judge: You may step down. Ms. Lincourt you may call your next witness.

Lincourt: The state calls Dr. Alfred Sorese.

Judge: Dr. Sorese, do you solemnly swear to tell the truth, the whole truth, and nothing but the truth so help you God?

Sorese: Yes, I do.

Lincourt: Dr. Sorese you are the state pathologist who conducted the autopsy on the victim, is that correct?

Sorese: Yes.

Lincourt: What was the cause of death?

Sorese: She was killed at close range with a hand gun.

Lincourt: How many times was she shot?

Sorese: Six times. Two shots to the head, one to the abdomen, two to the chest and one to the wrist.

Lincourt: Doctor, could you describe the victim’s wounds in detail?

Sorese: I will describe six distinct gunshot wounds to the victim. The terms first, second, and so forth do not refer to the sequence in which they occurred, but to how they were recorded during autopsy.

The first bullet lacerated the brainstem, which is where the spinal cord enters the brain. It proceeded through the left side of the brain, tearing apart brain tissue on its way, ultimately embedding in the left parietal bone, which is the skull bone on the top back part of the head. It is consistent with the victim's being shot under the chin while lying down.
The second bullet entered the skull near the outside of the victim's left eye. It traveled from left to right, front to back, and upward, traveling through both sides of the brain and eventually fragmenting when hitting the right occipital bone, which is the skull bone at the very back of the head. It did massive damage to the brain, destroying a great deal of tissue.

The third bullet entered on the right side of the abdomen. Its course was from right to left, front to back, and downward. It went through the victim's uterus and, as the victim was pregnant, the fetal placenta. The fetus took a direct hit, with damage to the ribcage, spine, and brain. The fetus would have been killed instantly. The bullet then went through the victim's rectum, exiting through the left buttock.

The fourth and fifth bullets were to the chest. Both bullets entered and exited the upper chest, one exiting by the right nipple and the other exiting on the left side of the chest. Neither bullet entered the chest cavity, indicating that the shooter did not shoot down at the victim from directly above, but that the victim was shot from a height of approximately three feet while lying prone.

The sixth and final bullet passed through the victim's left wrist without hitting any bones.

Lincourt: Which gunshot was the cause of death?

Sorese: Either gunshot to the head would have killed her immediately. The gunshot to the abdomen was also quite serious.

Lincourt: In your opinion, Dr., do you think the killer knew Andrea was pregnant?

Sorese: Yes I do. I also believe the gunshot fired to her stomach was done so with intent to kill the baby.

Lincourt: Now, your testimony is based on the autopsy you performed at the hospital; is that correct?

Sorese: Yes.

Lincourt: Did you also observe the victim at the scene of the crime?

Sorese: Yes, I did.

Lincourt: Could you describe her condition at the scene?
Sorese:  *Highly Gruesome Manipulation* Needless to say, she looked pretty bad. There was a lot of blood, which would have come mostly from the wounds to the abdomen and chest. The bed sheets were just saturated with blood, it had soaked the mattress, and some had pooled on the floor. It was mixed in with amniotic fluid from the ruptured placenta and defecation from the damaged rectum, so the whole place stunk pretty bad. The victim’s face was unrecognizable. The hair was matted with blood and brain tissue from the gunshots to the head. Small chunks of her skull were simply gone, and there were pieces of bone on the pillow. Pieces of brain matter had also extruded onto the pillow, and there was a lot of brain tissue oozing from what was left of her head. In layman’s terms, I’d have to say the whole thing was one big, stinking, bloody, goopy mess. But it’s been my experience that death is rarely pretty.

Lincourt: The state offers into evidence State’s Exhibit A, illustrating the victim’s condition at the time of death.

Judge: Before showing these pictures, I’d like to warn the jury that they as they show the deceased victim, they may be somewhat upsetting. OK, you may proceed.

[show slides]

Lincourt: Dr. Sorese, do you recognize these pictures, and if so, can you tell me from where?

Sorese: Yes, they are pictures of the deceased, Andrea Watson, taken at the scene of the crime and at the autopsy.

Lincourt: Thank you, Dr. Sorese. No further questions, your honor.

Judge: Your witness, Ms. Winsor.

Winsor: Doctor, from the autopsy could you tell what order the shots occurred in?

Sorese: No, I could not determine the exact order of the gunshots, but it is clear that they came in rapid succession.

Winsor: So the killer could have just fired six times not aiming at any particular area?

Sorese: I guess that is possible.

Winsor: Would you say that the victim experienced much pain?
Sorese: No, due to the severity of the wounds, the victim would have died instantly, and would not have experienced any pain.

Winsor: So is there anyway that we can know for sure that the murder was attempting to kill the fetus, or if she was even pregnant at all?

Sorese: The pregnancy was not very far along to be immediately apparent, especially since she was lying in bed under the covers. My opinion about the gunshot to the abdomen is based on my clinical experience and examination of the bullet’s trajectory, but of course I have no way of knowing exactly what was in the killer’s mind at the time of the crime.

Winsor: How far away was the killer from the victim?

Sorese: All of the shots appear to have been fired from 8 to 10 feet away. Usually when people kill their loved ones, the gun is fired at point-blank range. The gun appears to have been held about 3 feet high, about waist height.

Winsor: Thank you, Doctor. I have no further questions, your honor.

Judge: You may step down, Doctor. The prosecution may call its next witness.

Lincourt: Thank you, your honor. The state rests at this time.

Defense Witnesses

Judge: The defense may call it’s witnesses.

Winsor: Thank you, your honor. The defense calls Sandra Jenkins to the stand. Would you please state your name for the jury?

Judge: Do you solemnly swear to tell the truth, the whole truth, and nothing but the truth so help you God?

Jenkins: I do.

Winsor: Ms. Jenkins what is your relationship to the defendant?

Jenkins: Donald is my neighbor.
Winsor: Did you see the defendant on November 19?

Jenkins: Yes I did. I saw him with his son playing in the yard.

Winsor: To your knowledge did Mr. Watson leave his house during the night of November 19?

Jenkins: No. I saw his car in the driveway before I went to bed about 11 PM. His driveway is right next to my bedroom and I did not hear him leave during the night.

Winsor: Thank you Ms. Jenkins. No further questions your honor.

Judge: Your witness, Ms. Lincourt.

Lincourt: Thank you, your honor. Ms. Jenkins would you say you are a sound sleeper?

Jenkins: Yes. I would.

Lincourt: Are you commonly awakened by cars going down the street during the night?

Jenkins: No, that rarely occurs. I usually only wake up if a big truck like a garbage truck or moving van comes down our street.

Lincourt: Ms. Jenkins have you ever witnessed the defendant get angry or lose his temper?

Jenkins: Yes, on occasion. We used to get into arguments over little things.

Lincourt: Could you give us an example?

Jenkins: Well we got into many arguments over my boys playing in his yard.

Lincourt: So would you say that Donald has a temper?

Jenkins: Yes, I would say he has a temper.

Lincourt: Thank you, Ms. Jenkins. No further questions.
Winsor: I’d like to redirect the witness, your honor.

Judge: Proceed Ms. Winsor.

Winsor: Thank you, your honor. Ms. Jenkins has Donald ever become violent over any of your past arguments.

Jenkins: No. I wouldn’t characterize him as violent, just hot-headed at times.

Winsor: Thank you Ms. Jenkins. No further questions, your honor.

Judge: You may step down, Ms. Jenkins. The defense may call its next witness.

Winsor: The defense calls Phillip Roberts to the stand.

Judge: Mr. Roberts, do you solemnly swear to tell the truth, the whole truth, and nothing but the truth so help you God?

Roberts: Yes, I do.

Winsor: Mr. Roberts, would you please state your name and relationship to the defendant?

Roberts: My name is Phillip Roberts and I am the leader of Donald’s anger management group.

Winsor: Mr. Robert was Donald voluntarily seeking treatment for his anger management?

Roberts: Yes.

Winsor: And how many times was he going to therapy?

Roberts: He attends therapy 3 times a week.

Winsor: So he is still seeking treatment now?

Roberts: Yes.
Winsor: How is Donald progressing?

Roberts: He is making progress at controlling his anger and he has fewer outbursts than before.

Winsor: So in your opinion therapy is going well for Donald?

Robert: Yes. I would say so.

Winsor: Thank you Mr. Roberts. No further questions your honor.

Judge: Your witness, Ms. Lincourt.

Lincourt: Thank you, your honor. Mr Roberts how long had Donald been in therapy with you prior to his ex-wife’s murder?

Roberts: About 3 weeks before the murder.

Lincourt: How was Donald’s behavior during those sessions?

Roberts: He was pretty reluctant to disclose information about himself and he rarely stayed for the full time.

Lincourt: Did Donald ever mention anything about his situation with his ex-wife?

Roberts: Donald had expressed some frustration about the amount of child support he was paying his ex-wife.

Lincourt: Thank you Mr. Roberts. I have no further questions, your honor.

Judge: Mr. Roberts you may step down. The defense may call its next witness.

Winsor: Thank you, your honor. The defense rests at this time.

Judge: Very well. We will begin the closing arguments. Ms. Winsor you may proceed.

Winsor: Ladies and gentlemen of the jury, you have heard all of the prosecution’s evidence against the defendant and all that evidence is circumstantial. The evidence does not
prove beyond a reasonable doubt that Mr. Watson murdered his ex-wife. Now the
prosecution’s case places a lot of emphasis on the fact that Donald was abusive to
Andrea. My client does not deny that he and his wife had problems. He was even
seeking help for anger management. The fact that Donald and Andrea had some
heated arguments and minor altercations does not mean that he killed his wife. The
prosecution has proved no clear motive, and could not disprove Donald’s alibi. At
the time of Andrea’s murder Donald was at home with his son, asleep in the same
bed.

Donald could not have left the house without waking his son. The prosecution has
no witnesses who saw Donald leaving his house or arriving at Andrea’s house. No
one saw the defendant enter his ex-wife’s house, and no one heard him leave or
return to his house during the night. The only evidence the prosecution has is that
Donald’s fingerprints were found in the house. However, this is not surprising as
Donald use to live there and had visited to pick up his son, Jacob, the day of the
murder. Also, there is evidence that Andrea’s murder was part of a robbery. None of
Donald’s fingerprints were found in the basement, where the broken window was
found. Doctor Sorese testified that there is no way of knowing whether the killer
knew that Andrea was pregnant. The police have still not found a murder weapon.
So, the evidence points to a fouled burglary attempt. Unfortunately, Andrea paid the
unfair price for this crime. Don’t make the unfortunate decision of making an
innocent man, Mr. Donald Watson, pay for another criminal’s heinous actions. The
just verdict is not guilty.

Thank you.

Lincourt: The defense wants you to believe that even though Donald abused Andrea in the past
that this is not a motive for killing her. I agree with the defense that abuse is not a
motive. However, Donald’s unchecked anger was. And his anger manifested itself
into violent abuse and ultimately murder. Donald was infuriated because of
Andrea’s relationship with a coworker and that she was getting on with her life after the divorce filled Donald with white-hot,
jealous rage. On top of this, he was also frustrated because he was paying child
support for, Jacob. Not only did he abuse Andrea, but he also verbally threatened to
kill her if he found out the baby she was carrying was not his.

The defense wants you to believe that Andrea’s death was the result of a burglary
gone wrong. However, the brutal nature in which Andrea and her baby were killed
proves that the murder was not a random killing. Even Dr. Sorese testified that he
believed that the killer was intending to kill the unborn child. To cover his tracks,
Donald could have broken the basement window to make the murder look like a
burglary. The only reason Donald was attending therapy was so it would help him
win the custody battle over Jacob and we have shown he was not making a sincere
effort. Donald’s jealous and mean temper reached a boiling point, at which he acted
on his violent ways and murdered his ex-wife and her unborn child in cold blood.
Don’t let him get away with this heinous act. The only verdict can be guilty.
Judge's Instructions - Reasonable Doubt and 1st Degree Murder Indictment

Judge: There are two alleged crimes—two charges for which you are required to render verdicts. They are treated separately. For each crime, you must be convinced beyond a reasonable doubt that the evidence weighs against the defendant in order to convict him. Proof beyond a reasonable doubt is proof that leaves you firmly convinced of the defendant’s guilt. There are very few things in this world that we know with absolute certainty, and in criminal cases the law does not require proof that overcomes every possible doubt. If, based on your consideration of the evidence, you are firmly convinced that the defendant is guilty of the crime charged, you must find him guilty. If on the other hand, you think there is a real possibility that he is not guilty, you must give him the benefit of the doubt and find him not guilty of the specific charge.

The defendant is charged with two crimes.

The first charge is first degree murder. The indictment charges:

First degree murder is the killing of a human being when the offender has a specific intent to kill or inflict great bodily harm.

Thus, in order to convict the defendant of first degree murder, you must find:
(1) that the defendant killed the victim;
(2) that the defendant acted with specific intent to kill or inflict great bodily harm;
(3) and that the defendant acted with premeditation and deliberation to kill.

Judge’s Instructions - 1st Degree Feticide

The second charge is first degree feticide. The indictment charges:

Feticide is the killing of an unborn child by the act, procurement, or culpable omission of a person other than the mother of the child.

An unborn child is any individual of the human species from fertilization and implantation until birth.

First degree feticide is the killing of an unborn child when the offender has a specific intent to kill or inflict great bodily harm.

Thus, in order to convict the defendant of first degree feticide, you must find:
(1) that the defendant killed the victim;
(2) that the victim was an unborn child;
(3) that the defendant acted with specific intent to kill or inflict great bodily harm;
(4) and that the defendant was not the mother of the victim, and was not acting with
the consent of the mother of the victim.

**Sentencing Phase Instructions**

Judge: Now that you have reached a verdict, it is now time to consider the sentence you will
give the defendant. In a capital case, where the crime could bring the death sentence,
the prosecution and the defense will make certain points for you to consider and
weigh in reaching your sentencing decision. On the capital charge, your job is to
determine if the death sentence is appropriate in this case. A sentence of death shall
not be imposed unless the jury finds beyond a reasonable doubt that at least one
statutory aggravating circumstance exists, and, after consideration of any mitigating
circumstances, determines that the sentence of death should be imposed.

The following shall be considered mitigating circumstances:

(1) The offender has no significant prior history of criminal activity;
(2) The offense was committed while the offender was under the influence of
extreme mental or emotional disturbance;
(3) The offense was committed while the offender was under the influence or under
the domination of another person;
(4) The offense was committed under circumstances which the offender reasonably
believed to provide a moral justification or extenuation for his conduct;
(5) At the time of the offense the capacity of the offender to appreciate the
criminality of his conduct or to conform his conduct to the requirements of law was
impaired as a result of mental disease or defect or intoxication;
(6) The youth of the offender at the time of the offense;
(7) The offender was a principal whose participation was relatively minor;
(8) Any other relevant mitigating circumstance.

The following shall be considered aggravating circumstances:

(1) The offender knowingly created a risk of death or great bodily harm to more than
one person.
(2) The offense was committed in an especially heinous, atrocious or cruel manner.

You will now hear from the prosecution. Then you will hear from the defense.

**Prosecution**

Lincourt: We, the prosecution, believe that a number of aggravating circumstances exist in this
case such that the death penalty is warranted.
1. The murder was especially heinous. The victim, Andrea Watson, was shot six times including twice to the head and once to the abdomen, which killed her unborn child. The brutality of the murder is an aggravating circumstance in favor of the death penalty.

2. The defendant created a risk of death to more than one person. Donald Watson entered Andrea’s house with a loaded weapon with the premeditated intent to kill both Andrea and her unborn child. Donald’s willingness to kill Andrea and her unborn child is an aggravating circumstance in favor of the death penalty.

**Defense**

Winsor: We, the defense, believe that a number of mitigating circumstances exist in this case such that the death penalty is not warranted.

1. The history of the defendant. There is no evidence that this defendant is a hardened criminal. No evidence of a long history of violent crimes exists. Although he mistreated Andrea in the past he sought help for his anger management. Society reserves the death penalty for the worst criminals. The defendant does not fit that picture.

2. The offense was committed while Donald was under the influence of an extreme emotional disturbance. The murder occurred because of Donald’s anger over his ex-wife’s new relationship, not because he is a violent individual. We feel that the murder occurred because Donald failed to control his anger and jealousy of Andrea’s new relationship. We feel that Donald’s emotional state should be taken as a mitigating circumstance in favor of a life sentence rather than the death penalty.
Appendix B: Pre-trial Questionnaire

In this study, we ask that you play the part of a juror in a capital trial. You will first be asked to listen to the proceedings of a trial in an audiotaped format. Second, in the **verdict phase**, you will be asked to render a verdict (guilty or not guilty) for the defendant in the case, on all of the charges (i.e., the alleged crimes). And third, in the **sentencing phase**, you will be asked to determine the appropriate sentence for the crimes for which the defendant has been convicted.

All of your responses will be kept confidential. Please fill out the information below.

Age:________________

Gender: M F (circle one)

Have you ever been called for jury duty? Yes No (circle one)

Have you ever served on a jury? Yes No (circle one)
Capital Case Questions Asked by the Judge to Potential Jurors

This case you are about to read and make judgments on is a capital case—a case that involves an alleged crime for which the death penalty is a possible outcome. There are two parts to a trial where the death penalty may be imposed. In the first part (the verdict phase), the jurors decide whether the defendant is guilty or not guilty of the alleged crime(s). If the person is found guilty, there is a second part (the capital or sentencing phase) in which the jurors decide whether the defendant should get the death penalty or life imprisonment.

In capital cases, the judge asks potential jurors certain questions regarding their views on the death penalty during the jury selection phase (called voir dire) to determine whether potential jurors can sit on the jury or whether their views would disqualify them from sitting on such a case. We now ask you to answer all of the following questions by checking the box next to the answer that best represents your view.

1. Is your attitude toward the death penalty such that, as a juror, you would never be willing to impose the death penalty in any case, no matter what the evidence was, or would you consider voting to impose it in at least some cases? Which of the following best expresses your attitude?

   G I would be unwilling to vote or impose the death penalty in any case.

   G I would consider voting to impose it in some cases.

2. My views on the death penalty would

   G substantially impair my ability to perform my duties as a juror in accordance with the instructions of my oath.

   G not substantially impair my ability to perform my duties as a juror in accordance with the instructions and the oath.
3. In the second phase, the Capital or Sentencing Phase, which of the following expresses what you would do if you were a juror if the accused was found guilty and the prosecution was asking for the death penalty instead of life imprisonment?

G I would not automatically vote for the death penalty.

G I would always vote for the death penalty.
Appendix C: Verdict Questionnaire

Verdict Sheet

1. **First-degree murder**

Do you find the defendant, Donald Watson, guilty of first degree murder? (please circle your verdict)

<table>
<thead>
<tr>
<th>Guilty</th>
<th>Not Guilty</th>
</tr>
</thead>
</table>

How confident are you in your verdict? Please circle your confidence on the following scale, where 1 is not confident at all and 7 is very confident.

<table>
<thead>
<tr>
<th>Not confident at all</th>
<th>Very confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

What do you think is the likelihood that Donald Watson committed the crime? (*circle number*)

| 0 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 | 90 | 95 | 100 |
|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|

The defendant should be found guilty if there is at least a ______% chance that he committed the crime. (*fill in blank*)
2. **First-degree feticide**

Do you find the defendant, Donald Watson, guilty of first degree feticide? (please circle your verdict)

<table>
<thead>
<tr>
<th>Guilty</th>
<th>Not Guilty</th>
</tr>
</thead>
</table>

How confident are you in your verdict? Please circle your confidence on the following scale, where 1 is not confident at all and 7 is very confident.

<table>
<thead>
<tr>
<th>Not confident at all</th>
<th>Very confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

What do you think is the likelihood that Donald Watson committed the crime? (*circle number*)

0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100

The defendant should be found guilty if there is at least a ______% chance that he committed the crime. (*fill in blank*)
Sentence Sheet

You have heard the arguments. Now you must weigh the factors and set a sentence for each of these charges. Even if you may have found the defendant not guilty, we would like you to indicate an appropriate sentence for each crime, assuming the defendant had been found guilty. Where the possible sentence is life imprisonment or death, select one or the other. Where the possible sentence is a sentence range, for example “1-to-10 years,” please give a specific sentence duration in years (e.g., 5 years). For this example, you could set the sentence anywhere between 1 and 10 years, including 1 or 10, if that is your choice.

Instructions:

For the verdict you selected for this defendant, you will see the “possible sentence” that may be given. In the space provided next to the verdict, write in the sentence you wish to give the defendant.

_______________ First-degree Murder. Possible sentence: life imprisonment or death sentence.

For the second crime, you will again see the “possible sentence” next to the verdict you selected for this defendant. In the space provided next to verdict, write in the sentence you wish to give this defendant.

_______________ First-degree Feticide. Possible sentence: 0 - 15 years.
Appendix D: Post-Trial Questionnaire

Memory Test

Instructions: The following questions asks you to recollect different aspects of the trial evidence. Please be as specific as possible in your answers. Keep in consideration that you are recalling trial testimony. After you write your answer, please rate how confident you are in your memory on the 7-point scale.

1. Ms. Simpson, a counselor at the Family Violence Protection Center, testified that Andrea was seeking counseling. Why was Andrea seeking counseling?

How confident are you in your answer?

not confident
at all 1 2 3 4 5 extremely confident
6 7

2. Ms. Simpson testified that Andrea had revealed why she decided to leave Donald. What did Ms. Simpson say Andrea gave as her reason for leaving Donald?

How confident are you in your answer?

not confident
at all 1 2 3 4 5 extremely confident
6 7

3. On cross-examination, Ms. Simpson testified as to Andrea’s opinion of Donald’s relationship with his son. According to Ms. Simpson, what did Andrea say about Donald’s relationship with his son?

How confident are you in your answer?

not confident
at all 1 2 3 4 5 extremely confident
6 7
4. Debra James, Andrea’s mother, testified that she had witnessed a fight between Donald and Andrea. Ms. James testified that she heard Donald say what?

How confident are you in your answer?

not confident
at all 1 2 3 4 5 6 7

5. On cross-examination, Ms. James testified that Andrea resented her. Why did Ms. James believe that Andrea resented her?

How confident are you in your answer?

not confident
at all 1 2 3 4 5 6 7

6. Mr. Hulsman, Andrea’s neighbor, testified about Andrea’s activities after she and Donald divorced. What was Andrea doing?

How confident are you in your answer?

not confident
at all 1 2 3 4 5 6 7

7. Officer Owens testified that an examination of the house failed to find what near the broken basement window?

How confident are you in your answer?

not confident
at all 1 2 3 4 5 6 7
8. According to Officer Owens, how did Donald react to news of Andrea’s death when Owens questioned him?

How confident are you in your answer?

<table>
<thead>
<tr>
<th>not confident</th>
<th>extremely confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>at all</td>
<td></td>
</tr>
<tr>
<td>1  2  3  4  5</td>
<td>6  7</td>
</tr>
</tbody>
</table>

9. Officer Owens testified that the physical evidence was consistent with what crime?

How confident are you in your answer?

<table>
<thead>
<tr>
<th>not confident</th>
<th>extremely confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>at all</td>
<td></td>
</tr>
<tr>
<td>1  2  3  4  5</td>
<td>6  7</td>
</tr>
</tbody>
</table>

10. According to Officer Owens, was anything valuable missing from Andrea’s house? If so, what was missing?

How confident are you in your answer?

<table>
<thead>
<tr>
<th>not confident</th>
<th>extremely confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>at all</td>
<td></td>
</tr>
<tr>
<td>1  2  3  4  5</td>
<td>6  7</td>
</tr>
</tbody>
</table>

11. Dr. Sorese, the state pathologist, testified as to the cause of death. How many times was Andrea shot?

How confident are you in your answer?

<table>
<thead>
<tr>
<th>not confident</th>
<th>extremely confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>at all</td>
<td></td>
</tr>
<tr>
<td>1  2  3  4  5</td>
<td>6  7</td>
</tr>
</tbody>
</table>
12. According to Dr. Sorese, which gunshot was the cause of death?

How confident are you in your answer?

<table>
<thead>
<tr>
<th>not confident</th>
<th>extremely confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>at all</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

13. Dr. Sorese believed that the murderer had intended to kill the fetus. What did Dr. Sorese base this on?

How confident are you in your answer?

<table>
<thead>
<tr>
<th>not confident</th>
<th>extremely confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>at all</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

14. How far away from Andrea did Dr. Sorese believe the killer was when Andrea was shot to death?

How confident are you in your answer?

<table>
<thead>
<tr>
<th>not confident</th>
<th>extremely confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>at all</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

15. Ms. Sandra Jenkins, Donald’s neighbor and the defense’s first witness, testified as to Donald’s whereabouts on the night of Andrea’s murder. According to Ms. Jenkins, did Donald leave his house that night? How does she know that he did or did not leave his house?

How confident are you in your answer?

<table>
<thead>
<tr>
<th>not confident</th>
<th>extremely confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>at all</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>
16. What did Ms. Jenkins say when asked whether she ever witnessed Donald get angry or lose his temper?

How confident are you in your answer?

<table>
<thead>
<tr>
<th>not confident</th>
<th>extremely confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>at all</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

17. Mr. Phillip Roberts, the leader of Donald’s anger-management group, said Donald was attending therapy. According to Mr. Roberts, how many times a week was Donald attending therapy?

How confident are you in your answer?

<table>
<thead>
<tr>
<th>not confident</th>
<th>extremely confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>at all</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

18. According to Mr. Roberts, how is Donald progressing in his anger management?

How confident are you in your answer?

<table>
<thead>
<tr>
<th>not confident</th>
<th>extremely confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>at all</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

19. According to Mr. Roberts how long had Donald been in therapy before Andrea’s murder?

How confident are you in your answer?

<table>
<thead>
<tr>
<th>not confident</th>
<th>extremely confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>at all</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>
20. What did Donald mention about his situation with his ex-wife, according to Mr. Roberts?

How confident are you in your answer?

<table>
<thead>
<tr>
<th>not confident</th>
<th>extremely confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>at all</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>
Perceptions of Trial Evidence

Instructions: The following questions ask you to rate the level of detail and complexity of the witness testimony and trial evidence. Rate your answer by circling the number that best relates to your perceptions.

1. Ms. Mary Simpson’s testimony (family violence center counselor)

Level of detail?

very low detail moderate detail extremely detailed
1 2 3 4 5 6 7 8 9 10

Level of complexity?

not very complex moderately complex extremely complex
1 2 3 4 5 6 7 8 9 10

2. Debra James’s testimony (Andrea’s mother)

Level of detail?

very low detail moderate detail extremely detailed
1 2 3 4 5 6 7 8 9 10

Level of complexity?

not very complex moderately complex extremely complex
1 2 3 4 5 6 7 8 9 10

3. Mr. Hulsman’s testimony (Andrea’s neighbor)

Level of detail?

very low detail moderate detail extremely detailed
1 2 3 4 5 6 7 8 9 10

Level of complexity?

not very complex moderately complex extremely complex
1 2 3 4 5 6 7 8 9 10
4. Officer Thomas Owens’s testimony (police officer first called to murder scene)

<table>
<thead>
<tr>
<th>Level of detail?</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>very low detail</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>moderate detail</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>extremely detailed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level of complexity?</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>not very complex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>moderately complex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>extremely complex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. Dr. Alfred Sorese’s testimony (state pathologist)

<table>
<thead>
<tr>
<th>Level of detail?</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>very low detail</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>moderate detail</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>extremely detailed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level of complexity?</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>not very complex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>moderately complex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>extremely complex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. State Exhibit A (photographic evidence)

<table>
<thead>
<tr>
<th>Level of detail?</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>very low detail</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>moderate detail</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>extremely detailed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level of complexity?</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>not very complex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>moderately complex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>extremely complex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. Ms. Sandra Jenkins’s testimony (Donald’s neighbor)

<table>
<thead>
<tr>
<th>Level of detail?</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>very low detail</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>moderate detail</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>extremely detailed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

127
8. Mr. Phillip Roberts’s testimony (the leader of Donald’s anger management group)

Level of detail?
very low detail moderate detail extremely detailed
1 2 3 4 5 6 7 8 9 10

Level of complexity?
not very complex moderately complex extremely complex
1 2 3 4 5 6 7 8 9 10
Perceptions of the Photographic Evidence

The following questions are designed to gain additional information about your perceptions regarding the trial evidence. Circle the number that best corresponds to your perceptions.

1. How much *did* the photographs influence your decisions about guilt?
   
   not affected at all  | moderately affected  | extremely affected
   1  2  3  4  5  6  7  8  9  10

2. How much *should* the photographs impact your verdict?
   
   should not at all  | should moderately affect  | should extremely affect
   1  2  3  4  5  6  7  8  9  10

3. Did the content of the photographs have an impact on your verdict?
   
   Yes  No

4. Should the content of the photographs have an impact on your verdict?
   
   Yes  No

5. Having been presented with the photos in this case, how likely is it that you were a fair and unbiased juror?
   
   completely biased  | moderately biased  | completely fair and impartial
   1  2  3  4  5  6  7  8  9  10

6. If you were presented with these photos in an actual trial, how likely is it that you could be a fair and unbiased juror in the real trial?
   
   completely biased  | moderately biased  | completely fair and impartial
   1  2  3  4  5  6  7  8  9  10

7. Did you experience any physical reactions (e.g., nervous stomach, sweaty palms, difficulty) upon viewing the photos?
   
   Yes  No
Perceptions of the State Pathologist’s Testimony

The following questions are designed to gain additional information about your perceptions regarding the trial evidence. Circle the number that best corresponds to your perceptions.

1. How much did Dr. Sorese’s testimony influence your decisions about guilt?

   not affected at all  moderately affected  extremely affected
   1  2  3  4  5  6  7  8  9  10

2. How much should Dr. Sorese’s testimony impact your verdict?

   should not at all  should moderately affect  should extremely affect
   1  2  3  4  5  6  7  8  9  10

3. Did the content of Dr. Sorese’s testimony have an impact on your verdict?

   Yes          No

4. Should the content of Dr. Sorese’s testimony have an impact on your verdict?

   Yes          No

5. Having been presented with Dr. Sorese’s testimony in this case, how likely is it that you were a fair and unbiased juror?

   completely biased  moderately biased  completely fair and impartial
   1  2  3  4  5  6  7  8  9  10

6. If you were presented with Dr. Sorese’s testimony in an actual trial, how likely is it that you could be a fair and unbiased juror in the real trial?

   completely biased  moderately biased  completely fair and impartial
   1  2  3  4  5  6  7  8  9  10

7. Did you experience any physical reactions (e.g., nervous stomach, sweaty palms, difficulty) upon listening to Dr. Sorese’s testimony?

   Yes          No
**Personal Beliefs**

Finally, we are interested in how your personal beliefs are related to your perceptions and verdicts of the trial.

*Instructions:* For the following items, circle the number that best indicates your level of agreement or disagreement with the statement.

1. Laws have to be strictly enforced if we are going to preserve our way of life.

<table>
<thead>
<tr>
<th>Disagree</th>
<th>Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Agree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly</td>
<td>Somewhat</td>
<td>Slightly</td>
<td>Slightly</td>
<td>Somewhat</td>
<td>Strongly</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

2. People should pay less attention to the Bible and the other old traditional forms of religious guidance, and instead develop their own personal standards of what is moral and immoral.

<table>
<thead>
<tr>
<th>Disagree</th>
<th>Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Agree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly</td>
<td>Somewhat</td>
<td>Slightly</td>
<td>Slightly</td>
<td>Somewhat</td>
<td>Strongly</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

3. Women should always remember the promise they make in the marriage ceremony to obey their husbands.

<table>
<thead>
<tr>
<th>Disagree</th>
<th>Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Agree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly</td>
<td>Somewhat</td>
<td>Slightly</td>
<td>Slightly</td>
<td>Somewhat</td>
<td>Strongly</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

4. Our customs and national heritage are the things that have made us great, and certain people should be made to show greater respect for them.

<table>
<thead>
<tr>
<th>Disagree</th>
<th>Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Agree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly</td>
<td>Somewhat</td>
<td>Slightly</td>
<td>Slightly</td>
<td>Somewhat</td>
<td>Strongly</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

5. Capital punishment should be completely abolished.

<table>
<thead>
<tr>
<th>Disagree</th>
<th>Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Agree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly</td>
<td>Somewhat</td>
<td>Slightly</td>
<td>Slightly</td>
<td>Somewhat</td>
<td>Strongly</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>
6. National anthems, flags, and glorification of one's country should all be de-emphasized to promote the brotherhood of all men.

<table>
<thead>
<tr>
<th></th>
<th>Agree</th>
<th>Agree</th>
<th>Strongly</th>
<th>Somewhat</th>
<th>Slightly</th>
<th>Slightly</th>
<th>Agreed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. The facts on crime, sexual immorality, and the recent public disorders all show we have to crack down harder on deviant groups and troublemakers if we are going to save our moral standards and preserve law and order.

<table>
<thead>
<tr>
<th></th>
<th>Agree</th>
<th>Agree</th>
<th>Strongly</th>
<th>Somewhat</th>
<th>Slightly</th>
<th>Slightly</th>
<th>Agreed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8. A lot of our society's rules regarding modesty and sexual behavior are just customs which are not necessarily any better or holier than those which other peoples follow.

<table>
<thead>
<tr>
<th></th>
<th>Agree</th>
<th>Agree</th>
<th>Strongly</th>
<th>Somewhat</th>
<th>Slightly</th>
<th>Slightly</th>
<th>Agreed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9. Our prisons are a shocking disgrace. Criminals are unfortunate people who deserve much better care, instead of so much punishment.

<table>
<thead>
<tr>
<th></th>
<th>Agree</th>
<th>Agree</th>
<th>Strongly</th>
<th>Somewhat</th>
<th>Slightly</th>
<th>Slightly</th>
<th>Agreed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10. Obedience and respect for authority are the most important virtues children should learn.

<table>
<thead>
<tr>
<th></th>
<th>Agree</th>
<th>Agree</th>
<th>Strongly</th>
<th>Somewhat</th>
<th>Slightly</th>
<th>Slightly</th>
<th>Agreed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
11. Organizations like the army and the priesthood have a pretty unhealthy effect upon men because they require strict obedience of commands from supervisors.

<table>
<thead>
<tr>
<th>Disagree</th>
<th>Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Agree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly</td>
<td>Somewhat</td>
<td>Slightly</td>
<td>Slightly Somewhat</td>
<td>Strongly</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

12. One good way to teach certain people right from wrong is to give them a good stiff punishment when they get out of line.

<table>
<thead>
<tr>
<th>Disagree</th>
<th>Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Agree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly</td>
<td>Somewhat</td>
<td>Slightly</td>
<td>Slightly Somewhat</td>
<td>Strongly</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

13. Youngsters should be taught to refuse to fight in a war unless they themselves agree the war is just and necessary.

<table>
<thead>
<tr>
<th>Disagree</th>
<th>Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Agree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly</td>
<td>Somewhat</td>
<td>Slightly</td>
<td>Slightly Somewhat</td>
<td>Strongly</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

14. It may be considered old-fashioned by some, but having a decent, respectable appearance is still the mark of a gentleman and, especially, a lady.

<table>
<thead>
<tr>
<th>Disagree</th>
<th>Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Agree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly</td>
<td>Somewhat</td>
<td>Slightly</td>
<td>Slightly Somewhat</td>
<td>Strongly</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

15. In these troubled times laws have to be enforced without mercy, especially when dealing with the agitators and revolutionaries who are stirring things.

<table>
<thead>
<tr>
<th>Disagree</th>
<th>Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Agree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly</td>
<td>Somewhat</td>
<td>Slightly</td>
<td>Slightly Somewhat</td>
<td>Strongly</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>
16. Atheists and others who have rebelled against the established religions are no doubt every bit as good and virtuous as those who attend church regularly.

<table>
<thead>
<tr>
<th>Disagree</th>
<th>Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Agree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly</td>
<td>Somewhat</td>
<td>Slightly</td>
<td>Slightly</td>
<td>Somewhat</td>
<td>Strongly</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

17. Young people sometimes get rebellious ideas, but as they grow up they ought to get over them and settle down.

<table>
<thead>
<tr>
<th>Disagree</th>
<th>Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Agree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly</td>
<td>Somewhat</td>
<td>Slightly</td>
<td>Slightly</td>
<td>Somewhat</td>
<td>Strongly</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

18. Rules about being 'well-mannered' and respectable are chains from the past that we should question very thoroughly before accepting.

<table>
<thead>
<tr>
<th>Disagree</th>
<th>Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Agree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly</td>
<td>Somewhat</td>
<td>Slightly</td>
<td>Slightly</td>
<td>Somewhat</td>
<td>Strongly</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

19. The courts are right in being easy on drug offenders. Punishment would not do any good in cases like these.

<table>
<thead>
<tr>
<th>Disagree</th>
<th>Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Agree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly</td>
<td>Somewhat</td>
<td>Slightly</td>
<td>Slightly</td>
<td>Somewhat</td>
<td>Strongly</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

20. If a child starts becoming a little too unconventional, his parents should see to it he returns to the normal ways expected by society.

<table>
<thead>
<tr>
<th>Disagree</th>
<th>Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Agree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly</td>
<td>Somewhat</td>
<td>Slightly</td>
<td>Slightly</td>
<td>Somewhat</td>
<td>Strongly</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

21. Being kind to loafers or criminals will only encourage them to take advantage of your weakness, so it's best to use a firm, tough hand when dealing with them.

<table>
<thead>
<tr>
<th>Disagree</th>
<th>Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Agree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly</td>
<td>Somewhat</td>
<td>Slightly</td>
<td>Slightly</td>
<td>Somewhat</td>
<td>Strongly</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>
22. A 'woman's place' should be wherever she wants to be. The days when women are submissive to their husbands and social conventions belong strictly in the past.

<table>
<thead>
<tr>
<th>Disagree</th>
<th>Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Agree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly</td>
<td>Somewhat</td>
<td>Slightly</td>
<td>Slightly</td>
<td>Somewhat</td>
<td>Strongly</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

23. Homosexuals are just as good and virtuous as anybody else, and there is nothing wrong with being one.

<table>
<thead>
<tr>
<th>Disagree</th>
<th>Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Agree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly</td>
<td>Somewhat</td>
<td>Slightly</td>
<td>Slightly</td>
<td>Somewhat</td>
<td>Strongly</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

24. It’s one thing to question and doubt someone during an election campaign, but once a man becomes the leader of our country we owe him our greatest support and loyalty.

<table>
<thead>
<tr>
<th>Disagree</th>
<th>Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Agree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly</td>
<td>Somewhat</td>
<td>Slightly</td>
<td>Slightly</td>
<td>Somewhat</td>
<td>Strongly</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>
Vita

Robert J. Nemeth was born in Metairie, Louisiana, on April 12, 1974. He was raised in the suburbs of New Orleans, Metairie and Kenner. Despite these inauspicious beginnings, he attended Louisiana State University in Baton Rouge as an undergraduate student, earning a bachelor of science degree in psychology in 1996. Afterwards, he pursued an advanced degree in experimental psychology in the cognitive psychology program also at LSU. He earned his master of arts degree in psychology in 1999. His thesis concerned the relationship between source credibility cues and multiple exposures to misinformation in eyewitness memory.

In 2000, Robert moved to Lincoln, Nebraska, to pursue teaching and research opportunities as a result of his graduate advisor’s, Brian Bornstein, transfer to the University of Nebraska. At UNL, Robert gained valuable experience taking classes and conducting research within the law/psychology program.

Robert’s future goals are to get a position in academia and to continue to teach and conduct research in experimental psychology, which he loves greatly despite occasional whining. Besides his professional interests, Robert can often be found on his bicycle either commuting or on long-distance rides with friends and cycling club members.