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Literature Review

How a Classic Psychological Study Contributed to the Understanding of Graphic Evidence and Juror Decision-Making in Criminal Trials

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Abstract

This literature review examines the impact of graphic photographic evidence on juror decision-making, tracing the development of empirical research from early civil-trial studies to Douglas et al.'s (1997) seminal criminal-trial experiment. While early work suggested that vivid images bias judgments through emotional arousal, these studies lacked ecological validity and focused on civil contexts. Douglas et al. provided the first robust evidence that gruesome photographs significantly increase guilty verdicts in criminal trials and demonstrated that negative emotional responses predict harsher judgments. Subsequent research has refined this understanding, highlighting boundary conditions such as the severity of penalties, the amplifying effect of emotional testimony, and cultural differences in attitudes toward punishment. The review finds strong evidence that graphic evidence can create prejudicial effects, influencing current judicial caution. It also highlights the need for future research to develop structured tools for assessing evidentiary bias within the U.S. Criminal Justice System.

Keywords: graphic evidence, gruesome imagery, juror decision-making, criminal trials, vivid information, emotional arousal

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Introduction

In 1859, photographic evidence was first recorded in the United States (U.S.), and since then, its role in the courtroom has become pivotal (Reis, 2001). To be used as evidence, U.S. law requires that photographs be shown to be relevant by demonstrating that their use makes an aspect of the case more or less probable (Ogloff, 1990). Once relevance is ascertained, a judge must decide whether this relevance outweighs the potential biasing effect on the jury (Nemeth, 2002). Historically, there has been controversy over the use of gruesome photographs as evidence; attorneys have often called for their dismissal, arguing they are inflammatory, emotionally disturbing and create bias (Edwards, 2014). However, this argument has frequently failed in U.S. criminal cases, as the justice system has generally held that photographic evidence rarely, if ever, contributes to jury bias (Fagan, 1993; *Futch v. Dugger*, 1989; *State v. Hall*, 1970; *State v. Mohr*, 1970). This belief lacks empirical support, leading judges to rely solely on intuition and their own biases when making decisions about a possible evidence-prejudice effect (Bandes & Salerno, 2015; Cox & Tanford, 1989). Recognising this issue in 1997, Douglas, Lyon and Ogloff sought to address this knowledge gap, investigating the impact of graphic photographic evidence in criminal trials, and fundamentally shifting legal practices and psychological understanding within the U.S.

Prior Research

Of the little research that had explored photographic evidence in relation to jury effect in the U.S., the emphasis was on civil cases, specifically personal injury lawsuits. Oliver and Griffitt (1976) were the earliest to investigate. The pair examined how photographic evidence of a victim's injuries influenced mock jurors' monetary awards in a personal injury case. 48 participants, all of whom were U.S. citizens, reviewed a case summary of an employee injured by faulty equipment: half saw photos of the injury. Those who viewed the images awarded significantly more to the employee than those who did not. Oliver and Griffitt determined that graphic photos biased the jury through emotional arousal, meaning the images were assumed to activate affect-laden associations that could unconsciously prime jurors toward harsher evaluations of the defendant. However, no measures of participants' emotional responses were taken, casting doubt on this claim.

Conducting a similar experiment, Whalen and Blanchard (1982) explored how graphic photographs affect mock jurors' monetary awards in a personal injury case involving a boy injured while trespassing in an abandoned building. 144 female U.S.-based undergraduates saw case files with no pictures, colour photos, or black-and-white images of the boy's injuries. They were informed that the boy either sustained life-altering injuries or recovered quickly, and the case files varied in blame attributed to the building owner. Whalen and Blanchard found that participants who viewed colour

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photographs were more likely to award larger sums, particularly when the injuries were severe, and the owner was viewed as primarily responsible. As in Oliver and Griffitt's study, Whalen and Blanchard concluded that they observed a bias effect formed from emotional arousal. Both papers showed how graphic photographs can bias jurors' decisions and emphasised the significant role of emotion; however, their artificial settings provided jurors with scenarios unlike those in actual U.S. trials, and each focused on civil trials. It is likely that criminal trials, typically having harsher consequences and higher stakes, would heighten the impact of emotional arousal (Leeman, 2022).

Kassin and Garfield (1991) conducted the first study to explore the effect of video evidence on jury bias in a criminal trial. It involved 48 U.S. citizen participants who read a murder trial transcript and viewed either a relevant, non-relevant, or no video. They completed a juror bias scale to measure possible influence on decisions beyond the given evidence (Kassin & Wrightsman, 1983), read a trial transcript of a fatal stabbing, and completed a verdict questionnaire. Results showed that those who watched the videotape found the crime more graphic than those who did not, but there was no significant impact on verdicts between groups. Kassin and Garfield noted that the unexpected lack of guilty verdicts was likely due to insufficient evidence against the accused, not an absence of bias. The authors emphasised that their findings indicate that graphic evidence creates biasing effects that raise concerns for U.S. courtrooms.

The studies mentioned, which served as a foundation for Douglas et al.'s (1997) classic study, highlighted that graphic photographic evidence affects juror bias and cited emotional arousal as the cause. However, more evidence was required, specifically in a criminal trial, to further support this theory. Douglas et al. were the first to examine the impact of graphic photographs as evidence on jury decision-making in a mock criminal trial and measure the emotional impact involved.

The Study

Grounded in the psychological theory that vivid, emotionally charged information is more impactful (Bell & Loftus, 1985; Shedler & Manis, 1986), Douglas et al. (1997) conducted a seminal study exploring the effect of graphic photographic evidence on jury decision-making in criminal trials. Using a mock trial design, 120 U.S.-based psychology students ($M_{age} = 21.07$, $SD = 4.28$) were randomly assigned to one of three study conditions and provided with a detailed murder trial transcript. The three conditions comprised either colour photographs, black-and-white photographs, or no graphic images of the murder victim. After reading the transcripts, participants completed a verdict questionnaire; possible verdicts included not guilty, guilty of first-degree murder, second-degree murder, or manslaughter, all of which had been explained in the judicial instructions given within the trial transcript. Participants were asked to indicate their belief about the accused's guilt level on a scale of 1 to 10 and to complete

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a jury bias scale. Finally, participants completed questionnaires regarding their emotional reactions to viewing the gruesome images, evaluated their perceptions of their ability to remain unbiased by the pictures, and answered whether they believed photographic evidence was important in a criminal case.

Results showed that the proportion of guilty verdicts in the colour (57.5%) and black-and-white (50%) conditions was double that in the no graphic image condition, proving the impact of graphic evidence on juror bias. A regression analysis further confirmed the role of emotional arousal by examining whether emotional reactions to trial evidence could predict guilty verdicts. The findings indicated that the more participants reported feeling 'negative' emotional responses, such as anger or disgust (Jovanović, 2024), the more likely they were to return a guilty verdict. Douglas et al. surmised, much like their predecessors, that the bias seen in their research was caused by emotional arousal elicited by the graphic photographic evidence, which influenced the jurors' perception of the crime's severity and the accused's level of guilt, resulting in a biased effect that led to a higher proportion of guilty verdicts among groups exposed to the graphic photographs. The study provided clear evidence that graphic photographic evidence does bias juror decision-making, challenging prevailing legal assumptions in the U.S. criminal justice system.

Douglas et al. employed a controlled experimental setup; however, the sample consisted exclusively of psychology students, raising questions about the representation and generalisability of the results. Additionally, a mock trial setting is unlikely to capture all the complexities of an actual courtroom; for instance, this study measured jurors' individual verdicts, whereas in an actual U.S. courtroom, jurors converge to reach a group verdict (Leeman, 2022). It is also possible that a mock trial does not evoke the same emotional response as an actual trial, which, given that emotional impact is a key aspect of Douglas et al.'s findings, is crucial for understanding real-world implications. That said, the procedure was well-documented, enabling replication of the study and providing an excellent starting point for further research in the area. Douglas et al.'s study was pivotal in empirically demonstrating the link between graphic photographic evidence and prejudiced juror decision-making, highlighting a vital issue in the administration of justice in U.S. courts.

Impact and Legacy

Douglas et al.'s (1997) study demonstrated the closure of an important knowledge gap within the legal-psychological realm. Not only did the research confirm previous studies' findings on the relationship between graphic photographic evidence and juror bias (Oliver & Griffitt, 1976; Whalen & Blanchard, 1982), but it also confirmed that the bias stemmed from jurors' emotional arousal upon viewing such gruesome evidence.

Northumbria Student Academic Journal
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Expanding on the theory that vivid information triggers emotional arousal and leads to bias, Nemeth (2002) sought to replicate Douglas et al.'s (1997) findings and further investigate the underlying mechanisms of emotional arousal. However, Nemeth was unable to reproduce the bias effect on jurors. The difference between the materials employed in the two studies is a probable cause for this discrepancy; Douglas et al. presented jurors with choices ranging from first-degree to manslaughter charges, whereas Nemeth offered jurors a choice between not guilty and the death penalty. This introduces a new perspective on research: graphic photos may influence jury bias, but only to a certain extent, depending on the severity of the outcome.

Matsuo and Itoh (2016) developed upon the theory by further researching the influence of emotional arousal's biasing effect by observing how the effect of graphic images correlated with emotional testimony. Matsuo and Itoh found that combining emotional testimony and graphic photographic evidence significantly affected the rendering of guilty verdicts, increasing by 10% when both emotional testimony and gruesome photographs were presented; 33% of participants who rendered a guilty verdict chose the death penalty. This research further corroborated the findings of Douglas et al. and refined our understanding of the threshold at which bias emerges.

While graphic images alone did not shift jurors toward endorsing the death penalty (Nemeth, 2002), the combination of vivid photographs and emotionally charged testimony did, suggesting that multiple affective cues may be necessary to elicit a measurable prejudicial effect. However, cultural context must also be considered. Unlike previous studies, which exclusively recruited U.S. participants, Matsuo and Itoh's sample consisted of Japanese citizens. Japan operates under a justice system that does not employ juries as in the U.S., and capital punishment enjoys comparatively broad public support (British Embassy Tokyo, 2014). These structural and attitudinal differences raise the possibility that the observed shift in verdicts reflects culturally shaped norms around punishment rather than a universal psychological response to graphic evidence.

The accumulation of research on the topic, beginning with the paper by Douglas et al. (1997), heightened awareness of unfair prejudice in the courtroom. In 2017, Goodrich commented on the growing use of images in judicial decisions and urged the need for greater understanding in this field. This led to a meta-analysis conducted by Grady et al. in 2018. The analysis confirmed a significant effect of gruesome photographs on increasing juror convictions, indicating that across all studies, participants who encountered such photographs were more likely to reach a guilty verdict against the accused. The assembly of research provided judges with a deeper understanding of the biased effects that graphic photographs may have, allowing them to make more informed decisions regarding the admission of evidence. Douglas et al. have been cited in many legal arguments and decisions in the following years (Feigenson, 2009; Walton & Macagno, 2023) and in 2023, Goodrich commented on a

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significant change in pattern: since the classic study conducted by Douglas et al., judges have become increasingly cautious about admitting graphic images as evidence, balancing their newfound understanding of bias with the relevance of such photographic evidence. This can be seen in numerous case laws, such as *Commonwealth v. Woodard* (2015), *People v. Smith* (2001) *People v. Stevens* (2025) *and State v. Johnson* (2009).

Future Research

We have seen that Douglas et al. (1997) contributed to the understanding of graphic evidence and its impact on juror decision-making in criminal trials. However, Edwards and Mottarella (2014) explain that judges seeking to prevent jurors from making emotional decisions often fail due to a lack of a structured approach. This absence leaves judges unable to evaluate the potential for bias in the relevance of evidence (Grady et al., 2018). Future tool development would provide judges with a solid basis for decisions, but progress depends on addressing knowledge gaps. Previous discussions showed that bias has constraints regarding the severity. Further research could clarify biases in criminal trials. For instance, if graphic evidence combined with emotional testimony increases bias towards the death penalty (Matsuo & Itoh, 2016); knowing if this effect varies with the accused's age or gender would be beneficial.

So far, all studies on the subject have been based upon the theory that vivid information affects emotional arousal (Bell & Loftus, 1985; Douglas et al., 1997; Matsuo & Itoh, 2016; Nemeth, 2002; Shedler & Manis, 1986). It would be interesting to expand on this further by examining the influence of bias through Schachter's two-factor theory, which posits that arousal can be misattributed to emotions such as anger, discomfort and fear (Cotton, 1981). Such investigations would enhance our understanding of the effects of graphic images on juror bias and pave the way for a structured tool that judges could utilise when assessing the relevance of evidence.

Since 1859, photographic evidence in criminal trials has significantly evolved. Douglas et al. (1997) showed that graphic images can influence juror decisions by eliciting emotional responses. This research has led judges to exercise caution regarding potential prejudice, highlighting the need for methods to assess the biasing effect of evidence. Ongoing research remains essential for maintaining a fair U.S. justice system.

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