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EMOTIONS IN THE COURTROOM: HOW SADNESS, FEAR, ANGER, AND DISGUST AFFECT JURORS' DECISIONS

*Victoria Estrada-Reynolds, Kimberly A. Schweitzer, and Narina Nuñez**

Aurora, Colorado, made national headlines in 2012 when a man opened fire in a movie theater filled with unsuspecting patrons.¹ In the subsequent trial, Prosecutor George Brauchler presented the State's opening arguments.² He played portions of a 911 call made during the mass shooting, displayed pictures of the victims, and described how they were wounded.³ Such evidence likely appealed to the jury's emotions and elicited feelings of anger, sadness, disgust, and fear; these appeals continued throughout the course of the trial.

Broadly speaking, strong emotions in criminal trials can also be elicited during other aspects of the criminal case, including in the presentation of gruesome evidence,⁴ testimony,⁵ and through victim impact statements. These emotions can

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¹ See John Ingold et al., *Aurora Theater Shooting Jurors Hear Audio of Screams, Gunshots During 911 Call*, DENVER POST (Apr. 27, 2015, 1:52 PM), <https://perma.cc/QFJ7-ZWTM>.

² *Id.*

³ *Id.*

⁴ See David A. Bright & Jane Goodman-Delahunty, *Gruesome Evidence and Emotion: Anger, Blame, and Jury Decision-Making*, 30 LAW & HUM. BEHAV. 183, 194 (2006); Kevin S. Douglas et al., *The Impact of Graphic Photographic Evidence on Mock Jurors' Decisions in a Murder Trial: Probative or Prejudicial?*, 21 LAW & HUM. BEHAV. 485, 491-92 (1997).

⁵ See Breanna Boppre & Monica K. Miller, *How Victim and Execution Impact Statements Affect Mock Jurors' Perceptions, Emotions, and Verdicts*, 9 VICTIMS & OFFENDERS 413, 424 (2014).

affect and potentially impede jurors' ability to make rational decisions.⁶ Indeed, there is extensive research discussing the impact of emotions on decision-making in general, and recently, that research has been applied to the legal realm.⁷

This article examines research of mock jurors' emotions and how those emotions impact their decisions. More specifically, this article discusses how sadness, anger, disgust, and fear affect juror decision-making, reviews theories supporting these findings, and provides some concluding thoughts regarding the legal applications of the emotions evoked during trial. Part I examines the emotional content of victim impact statements from capital trial sentencing hearings and briefly discusses how specific emotions are theorized to affect decisions.⁸ Part II reviews psychological research on how anger, sadness, fear, and disgust affect mock juror decisions.⁹ Additionally, Part II describes naturally occurring emotions captured in mock sentencing hearings, as well as research that has manipulated emotions felt by mock jurors and how their decisions are affected.¹⁰ Part III summarizes the main psycho-legal research on emotions and mock juror decisions and briefly discusses the limitations of these approaches.¹¹

I. EMOTIONAL CONTENT OF VICTIM IMPACT STATEMENTS

The emotional content of victim impact statements (VIS) can affect mock jurors. VIS are statements typically given by family and friends of the victim during court proceedings that describe the impact the crime has had on their personal lives.¹² VIS are controversial, particularly in capital trial cases.¹³ Although VIS can be delivered in several ways, one method is when family members and friends of the victim read a previously prepared statement in front of the jury.¹⁴ Another method is when the prosecuting attorney asks the victim's family and friends questions and are required to provide unprepared responses.¹⁵ A final

⁶ See JOSEPH P. FORGAS, EMOTION AND THE LAW 13–16 (Brian H. Bornstein & Richard L. Wiener eds., 2010).

⁷ See, e.g., Richard L. Wiener et al., *Emotion and the Law: A Framework for Inquiry*, 30 LAW & HUM. BEHAV. 231 (2006).

⁸ See *infra* notes 12–41 and accompanying text.

⁹ See *infra* notes 42–147 and accompanying text.

¹⁰ See *infra* notes 42–147 and accompanying text.

¹¹ See *infra* notes 148–51 and accompanying text.

¹² See Bryan Meyers & Edith Greene, *The Prejudicial Nature of Victim Impact Statements: Implications for Capital Sentencing Policy*, 10 PSYCHOL., PUB. POL'Y, & L. 492, 494 (2004).

¹³ *Id.* at 501.

¹⁴ See Narina Nuñez et al., *Impact of Different Methods of Victim Impact Statement Delivery at Capital Trials: Emotionality of Statements and its Impact on Sentencing Decisions*, Presentation at the 4th International Congress of Psychology and Law (Mar. 2011) [hereinafter *Impact of Different Methods*].

¹⁵ *Id.*

method is when VIS are voiced in front of a judge in a separate hearing after the jury is removed.¹⁶

In 2011, Professor Nuñez and her colleagues analyzed hundreds of VIS from capital trial cases that occurred across the country in 2004.¹⁷ In the field study, 262 transcripts were obtained from the sentencing phase of capital trials; 142 of the trials resulted in death sentences and 120 ended with sentences of life in prison.¹⁸ The authors examined these cases to determine whether positive or negative emotions, or both, were present in the trials that permitted VIS, the types of emotions elicited—for example, anger—in the trials with VIS, and whether the emotionality of the VIS predicted sentencing.¹⁹ Further, they investigated how individual VIS were delivered to determine the most common method of delivering VIS.²⁰

Of the 262 capital trials, fifty-seven percent contained VIS.²¹ Specifically, thirty-five of the cases that resulted in life imprisonment contained VIS and forty of the cases that resulted in the death penalty contained VIS.²² On average, nearly three VIS were given during each sentencing hearing, which suggests that typically multiple statements are given during the sentencing phase of capital trials.²³ To determine the emotional content of VIS, the Linguistic Inquiry and Word Count (LIWC) software was used.²⁴ The LIWC measures the extent to which particular categories of words are used in the statements.²⁵ For example, the LIWC program detects the concept of anger by detecting the frequency of 184 anger-related words, including “hate” and “pissed.”²⁶

Using the LIWC software, Professor Nuñez and her colleagues found that VIS contained more positive than negative emotional words, contrary to what is expected from grieving family members and friends.²⁷ Although family and

¹⁶ *Id.*

¹⁷ *Id.*

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ *Id.*

²¹ *Id.*

²² *Id.*

²³ *Id.*

²⁴ See James W. Pennebaker et al., *The Development and Psychometric Properties of LIWC2015* (2015), <https://perma.cc/EZY9-H8BG> [hereinafter *LIWC2015*]; James W. Pennebaker et al., *Operator's Manual Linguistic Inquiry and Word Count: LIWC2007* (2007), <https://perma.cc/PK7N-PWPF> [hereinafter *LIWC2007*]; see also *Impact of Different Methods*, *supra* note 14.

²⁵ See *LIWC 2007*, *supra* note 24.

²⁶ See *LIWC215*, *supra* note 24.

²⁷ See *Impact of Different Methods*, *supra* note 14.

friends of victims may use more positive language in their VIS, such as recounting positive things about the victim's life, the VIS can still elicit negative emotions—for example, sadness—in those who hear them, including jurors.²⁸ Accordingly, the researchers examined how frequently the themes of sadness and anger appeared in the various types of VIS delivery; they examined VIS given in front of the jury, in front of the judge, and in the question-answer format.²⁹ Overall, words conveying sadness were used more often compared to words conveying anger.³⁰ Further analysis revealed that the emotional content of the VIS differed based on whether they were delivered in the question-answer format in lieu of the free-narrative format.³¹ When the VIS were given in the question-answer format, they contained fewer emotional words overall, both positive and negative.³²

From analyzing the VIS, several interesting and informative patterns of emotion emerged. First, those who gave a VIS used more positive than negative emotional words; however, negative emotional words were still present.³³ Second, among the negative emotions, sadness-related words were used more frequently than anger-related words.³⁴ Thus, the authors concluded that emotional *words* do occur in VIS.³⁵ What was not conclusive was whether the emotions conveyed in the VIS affected jurors' own emotional experiences during trial and, in turn, their decision-making. If so, there are several theories that hypothesize how specific emotions affect decision-making.³⁶

Sadness, for example, has typically been associated with a more detail-oriented type of information processing.³⁷ That is, when someone is sad, one theory of emotion suggests that he or she processes information more carefully.³⁸

²⁸ See Boppre & Miller, *supra* note 5, at 414, 424.

²⁹ See *Impact of Different Methods*, *supra* note 14.

³⁰ *Id.*

³¹ *Id.*

³² *Id.*

³³ *Id.*

³⁴ *Id.*

³⁵ *Id.*

³⁶ See, e.g., Larissa Z. Tiedens & Susan Linton, *Judgment Under Emotional Certainty and Uncertainty: The Effects of Specific Emotions on Information Processing*, 81 J. PERSONALITY & SOC. PSYCHOL. 973, 974–75 (2001); Jennifer S. Lerner & Dacher Keltner, *Beyond Valence: Toward a Model of Emotion-Specific Influences on Judgment and Choice*, 14 COGNITION & EMOTION 473, 477–79 (2000); Joseph P. Forgas, *Mood and Judgment: The Affect Infusion Model (AIM)*, 117 PSYCHOL. BULL. 39, 46–51 (1995); Gerald L. Clore et al., *Affective Feelings as Feedback: Some Cognitive Consequences*, in THEORIES OF MOOD AND COGNITION: A USER'S GUIDEBOOK 27, 27–62 (Leonard L. Martin & Gerald L. Clore eds., 2001).

³⁷ See Tiedens & Linton, *supra* note 36, at 977–78.

³⁸ See *id.*

Happiness and anger, on the other hand, are typically associated with a heuristic or attention-narrowing style of information processing, which may impede jurors' ability to make informed decisions.³⁹ Therefore, conducting experimental studies where emotions are measured and manipulated is important to determine what types of emotions might be present in VIS and criminal trials. Despite examining which emotions are likely to be present at trial, researchers need to examine how emotions might affect jurors' decision-making using a more empirical approach.

It should be noted that the current research on emotions and juror decision-making have largely been conducted using mock jurors. Psychologists have suggested that several limitations exist when attempting to generalize research findings from mock jurors to real jurors—whether student populations respond similarly compared to community members, the environment where the research is conducted, and the way the trial materials are presented (for example, written/ audio transcriptions versus more realistic simulations).⁴⁰ It is possible that real jurors who participate in trial or sentencing proceedings differ in their emotional experiences when compared with mock jurors in a trial simulation. Readers should keep this distinction in mind throughout this article. For instance, in one study that measured emotions felt by mock jurors during a simulated sentencing hearing, fear was not elicited.⁴¹ Although this might suggest that jurors do not feel fear during legal proceedings, it might also suggest that in a simulation there is no reason to be fearful because the simulation lacks a real defendant and crime. Further, because laboratory experiments typically administer the simulations to mock jurors, the lack of real consequences may affect jurors' decisions; mock jurors may be more inclined to give the death penalty because they lack the feelings associated with sentencing a person to death in a real trial. Given these constraints, this article discusses what researchers have found about how emotions impact mock jurors' judgments of guilt and sentencing decisions.

II. THE IMPACT OF EMOTIONS ON MOCK JURORS

Many emotion theorists propose that researchers should examine specific types of emotion, instead of generally looking at negative and positive emotions.⁴² Thus, psycho-legal researchers typically examine specific negative emotions and

³⁹ *See id.*

⁴⁰ Brian H. Bornstein, *The Ecological Validity of Jury Simulations: Is the Jury Still Out?*, 23 *LAW & HUM. BEHAV.* 75, 75–76 (1999).

⁴¹ Narina Nuñez et al., *Negative Emotions Felt During Trial: The Effect of Fear, Anger, and Sadness on Juror Decision Making*, 29 *APPLIED COGNITIVE PSYCHOL.* 200, 205 (2015).

⁴² *See* Galen V. Bodenhausen et al., *Negative Affect and Social Judgment: The Differential Impact of Anger and Sadness*, 24 *EUR. J. SOC. PSYCHOL.* 45, 45–46 (1994); Norbert Schwarz, *Social Judgment and Attitudes: Warmer, More Social, and Less Conscious*, 30 *EUR. J. SOC. PSYCHOL.* 149, 159 (2000); *see also* Lerner & Keltner, *supra* note 36, at 474.

determine if they affect decisions. Professor Nuñez and her colleagues have conducted several studies where emotional aspects of the trial were manipulated to see what types of emotions the jurors felt and how those emotions impacted the jurors' decisions at trial.⁴³

A. *Anger, Sadness, and Fear*

To examine the impact of emotions on mock jurors' decisions, Professor Nuñez and her colleagues asked death-qualified mock jurors⁴⁴ to watch a video reenactment of a sentencing phase of a capital murder trial, then to decide whether the defendant should receive life in prison without the possibility of parole or the death penalty, and to rate the importance of both the prosecution's and the defense's arguments.⁴⁵ Further, the researchers measured the participants' emotions before and after the video of the trial using the Positive and Negative Affect Scale-Expanded Form (PANAS-X).⁴⁶ Using the PANAS-X, the researchers asked the participants to rate twenty-nine emotion words on a scale from one (very slightly or not at all) to five (extremely), to indicate whether they felt each particular emotion at that time.⁴⁷ For example, to detect whether the participants were angry, the ratings for six words—angry, hostile, irritable, scornful, disgusted, and loathing—were added together to create a numerical score; higher scores indicated more feelings of anger.⁴⁸ Along with anger and sadness, the researchers also examined fear. Fear has been theorized to affect jurors in a similar manner as sadness, possibly leading to more detailed information processing (considering more of the facts of the case).⁴⁹ Because fear can create *better* information processors, it was examined along with anger and sadness.⁵⁰

The mock jurors then watched a reenactment of a sentencing phase of a capital trial and their emotions were measured before and after the trial using

⁴³ See Nuñez et al., *supra* note 41, at 203; see also Kimberly Schweitzer et al., *Disgust, Anger, and Cats: The Effect of Disgust on Jurors' Decisions* 9 (2015) (unpublished manuscript) (on file with author).

⁴⁴ In order for individuals to serve on a jury during the sentencing phase of a capital trial, they must be death qualified. Death qualification is defined as whether one is willing to vote for the death penalty in a case, but would not always vote for death. See generally *Wainwright v. Witt*, 469 U.S. 412 (1985).

⁴⁵ See Nuñez et al., *supra* note 41, at 203.

⁴⁶ See *id.*; David Watson & Lee Anna Clark, *The PANAS-X: Manual for the Positive and Negative Affect Schedule—Expanded Form* (1994), <https://perma.cc/CR25-BV98>.

⁴⁷ See Nuñez et al., *supra* note 41, at 204.

⁴⁸ See *id.*

⁴⁹ See Tiedens & Linton, *supra* note 36, at 980.

⁵⁰ *Id.*

the PANAS-X.⁵¹ The results showed that fear did not change before and after the video, suggesting that participants did not feel more or less fear after watching the trial.⁵² However, both sadness and anger increased after the participants watched the video.⁵³ The increase in sadness felt by the mock jurors did not affect whether they sentenced the defendant to life in prison or death.⁵⁴ However, increases in anger did affect their sentencing decisions; participants who became angrier after the video were more likely to give the defendant the death penalty.⁵⁵ This finding is consistent with the work of other scholars.⁵⁶ In addition, the mock jurors were also asked to rate how important they felt the prosecution's and defense's arguments were in their decisions.⁵⁷ When examining their responses, results showed that mock jurors who experienced an increase in anger were more likely to rate the prosecutor's argument as more important.⁵⁸ Further as the perceived importance of the prosecutor's argument increased, mock jurors were more likely to sentence the defendant to death.⁵⁹

Results indicated that increases in anger can have an impact on mock jurors' decisions in a relatively realistic capital trial setting.⁶⁰ Although mock jurors also reported increases in sadness, experiencing sadness did not seem to affect whether the mock jurors would choose life imprisonment or death.⁶¹ Further, fear did not increase or decrease as a result of watching the sentencing phase.⁶² This may be due to the fact that fear is a difficult emotion to elicit in participants in a laboratory. Alternatively, actual jurors may not feel fear at the sentencing phase of a capital trial, as the defendant has already been convicted of the crime and will most likely not be released.

⁵¹ See Nuñez et al., *supra* note 41, at 203–04; see also Watson & Lee Anna Clark, *The PANAS-X: Manual for the Positive and Negative Affect Schedule—Expanded Form* (1999), <https://perma.cc/SGL6-4G4H>.

⁵² See Nuñez et al., *supra* note 41, at 205.

⁵³ See *id.* Mock juror emotions were measured before and after the sentencing hearing using the PANAS-X, a validated measure of emotions. On average prior to the sentencing hearing, mock jurors reported their level of fear at 7.43, which increased (not significantly) to 7.50 after the sentencing hearing. For feelings of sadness, mock jurors reported their level of sadness at 6.52 prior to the sentencing hearing, which increased significantly to 8.40. Finally, feelings of anger before the hearing were recorded on average at 6.87, and also increased significantly to 9.53.

⁵⁴ See Nuñez et al., *supra* note 41, at 205.

⁵⁵ *Id.*

⁵⁶ See, e.g., Leah C. Georges et al., *The Angry Juror: Sentencing Decisions in First-Degree Murder*, 27 APPLIED COGNITIVE PSYCHOL. 156, 162 (2013).

⁵⁷ See Nuñez et al., *supra* note 41, at 203.

⁵⁸ *Id.* at 206.

⁵⁹ *Id.*

⁶⁰ *Id.* at 205–06.

⁶¹ *Id.* at 205.

⁶² *Id.*

In another study, emotions elicited by VIS were manipulated to determine if different kinds of emotions produced by witnesses could yield the same results as those described above.⁶³ In the study, the mock jurors watched the sentencing phase of a capital trial, which included either a VIS given by the victim's wife or no VIS at all.⁶⁴ When the VIS was present, the actor playing the victim's wife read the statement with either anger or sadness.⁶⁵ The reenactment of the sad VIS did not affect the mock jurors' decisions; those who saw the sad VIS were no more or less likely to give the death penalty than those who did not see any VIS.⁶⁶ However, the angry VIS did affect the mock jurors' decisions.⁶⁷ Similar to our previous study, those who viewed the angry VIS were more likely to sentence the defendant to death.⁶⁸

Consistently, psycho-legal researchers have seen that anger can affect jurors' decisions.⁶⁹ Specifically, angry jurors are more likely to sentence defendants to death and argue that the prosecution was stronger than the defense.⁷⁰ Within the psychological literature, there are several theories regarding anger that help explain these results. Appraisal theory suggests that specific emotions are associated with feelings of certainty or uncertainty.⁷¹ For example, psychologists believe anger to be related to feelings of certainty.⁷² When an individual feels certain, this tells him or her that the information he or she currently has is correct and complete, thus eliminating the need to search for more information.⁷³ On the other hand, emotions that elicit uncertainty lead to a continued search for information and more effortful processing.⁷⁴ Thus, feelings of certainty or uncertainty can lead people to process information differently.⁷⁵ When one feels certain, heuristic information processing is likely.⁷⁶ That is, if a person does not process information

⁶³ *Id.* at 204–06.

⁶⁴ Narina Nuñez et al., *The Impact of Angry Versus Sad Victim Impact Statements on Sentencing Decisions in a Capital Trial*, Presentation at the Annual American Psychology-Law Society Conference (2015) [hereinafter *The Impact of Angry Versus Sad*].

⁶⁵ *Id.*

⁶⁶ *Id.*

⁶⁷ *Id.*

⁶⁸ *Id.*

⁶⁹ See Nuñez et al., *supra* note 41, at 206–07; see also *The Impact of Angry Versus Sad*, *supra* note 64.

⁷⁰ See Nuñez et al., *supra* note 41, at 205–07.

⁷¹ See Tiedens & Linton, *supra* note 36, at 974.

⁷² *Id.*

⁷³ *Id.* at 978.

⁷⁴ *Id.* at 974.

⁷⁵ *Id.* at 974–75.

⁷⁶ *Id.* at 985.

carefully, he or she is more likely to use stereotypes or other information that should not be central to his or her decision (for example, the race or socioeconomic status of a defendant).⁷⁷

Applying appraisal theory to legal decision-making, when a mock juror feels angry, it is theorized that he or she will be more likely to report feeling certain.⁷⁸ When a mock juror feels certain, he or she may stop listening to additional evidence, believing that the evidence or information he or she already has is correct and complete.⁷⁹ Additionally, he or she might begin processing information in a heuristic way, paying attention to more superficial cues about the case.⁸⁰ Conversely, emotions that elicit uncertainty (e.g., sadness and fear) may lead to processing information more carefully, as feeling uncertain signals the need to keep looking for more information to help make a decision.⁸¹

Other theorists posit that anger shifts a person's motivation when making a decision; this is known as the intuitive prosecutor mindset.⁸² A juror may initially be motivated to seek out information to determine whether the defendant is guilty.⁸³ However, when anger is induced, it is theorized that anger then motivates the juror to blame and punish the accused.⁸⁴ Anger, therefore, appears to be related to lower quality information processing, while fear and sadness appear to induce feelings of uncertainty and potentially more careful information processing.⁸⁵ The results from our studies suggest that anger does in fact lead to more punitive decisions and narrows the attention that is placed on the prosecutor's evidence, thereby supporting the intuitive prosecutor model.⁸⁶ Further, there was no relationship found between sadness and punitive decisions.⁸⁷ Sadness did not seem to affect whether jurors supported the defense's or the prosecution's case more, which suggests that sadness does not motivate jurors to be as punitive in their decisions as anger.⁸⁸

⁷⁷ See Bodenhausen et al., *supra* note 42, at 51.

⁷⁸ See Tiedens & Linton, *supra* note 36, at 974.

⁷⁹ *Id.* at 974–75.

⁸⁰ *Id.*

⁸¹ *Id.*

⁸² See Julie H. Goldberg et al., *Rage and Reason: The Psychology of the Intuitive Prosecutor*, 29 EUR. J. SOC. PSYCHOL. 781, 783 (1999).

⁸³ *Id.*

⁸⁴ *Id.*

⁸⁵ See Tiedens & Linton, *supra* note 36, at 974.

⁸⁶ See Nuñez et al., *supra* note 41, at 206–07.

⁸⁷ *Id.*

⁸⁸ *Id.*

B. *Disgust and Anger*

The research described above focused on the different emotions felt during trial and how they affect jurors' decisions.⁸⁹ More recently, researchers have begun to investigate disgust-eliciting events and how disgust experienced by mock jurors affects legal decisions. According to appraisal theorists, disgust (like anger) is another emotion hypothesized to be related to feeling certain, which may lead individuals to make more punitive decisions.⁹⁰ Often, graphic descriptions of crime scenes and the seriousness of the crime—for example, the shooting of a small child—are thought to elicit disgust in mock jurors.⁹¹ Our lab has conducted several studies focusing on manipulating disgust in a trial setting, its relation to anger, and how disgust and anger affect jurors' decisions.

When mock jurors are simply exposed to disgust, rather than experience disgust, either through graphic crime scene images or when the defendant commits a specific act, mock jurors are typically more punitive towards the defendant.⁹² However, these early studies fail to measure whether jurors actually *feel* disgust as a result of exposing them to disgust.⁹³ Further, some theories of emotion suggest that there are different types of disgust. For example, some psychologists propose that disgust can be divided into physical disgust (e.g., viewing graphic crime scene photos) and moral disgust (e.g., committing some moral violation, such as incest).⁹⁴ Further, by applying appraisal theory to physical and moral disgust, some researchers have suggested that moral disgust leads to feelings of certainty whereas physical disgust leads to feelings of uncertainty.⁹⁵

Additionally, some studies have shown that disgust is related to anger.⁹⁶ In psychological research, it is important to examine variables of interest—for example, emotions—in isolation in order to determine whether they truly account for the observed changes. However, emotions rarely occur in isolation, and

⁸⁹ See *supra* notes 44–88 and accompanying text.

⁹⁰ See Tiedens & Linton, *supra* note 36, at 974.

⁹¹ Carleen M. Thompson & Susan Dennison, *Graphic Evidence of Violence: The Impact of Juror Decision-Making, the Influence of Judicial Instructions and the Effect of Juror Biases*, 11 PSYCHIATRY PSYCHOL. & L. 323, 330–32 (2004).

⁹² See Edward Oliver & William Griffitt, *Emotional Arousal and “Objective” Judgment*, 8 BULL. PSYCHONOMIC SOC'Y 399, 400 (1976); Denise H. Whalen & Fletcher A. Blanchard, *Effects of Photographic Evidence on Mock Juror Judgment*, 12 J. APPLIED SOC. PSYCHOL. 30, 36–37 (1982).

⁹³ See Bright & Goodman-Delahunty, *supra* note 4, at 185–86.

⁹⁴ See Spike W. S. Lee & Phoebe C. Ellsworth, *Maggots and Morals: Physical Disgust is to Fear as Moral Disgust is to Anger*, in COMPONENTS OF EMOTIONAL MEANING: A SOURCEBOOK 271, 272 (Johnny R. J. Fontaine et al. eds., 2013).

⁹⁵ *Id.* at 273.

⁹⁶ See Jessica M. Salerno & Liana C. Peter-Hagene, *The Interactive Effect of Anger and Disgust on Moral Outrage and Judgments*, 24 PSYCHOL. SCI. 2069, 2072 (2013).

research of disgust-eliciting events has indicated that there is a unique relationship between feelings of disgust and anger after being exposed to a disgusting event. For example, in one mock juror study, participants watched a video reenactment of a murder trial which showed gruesome crime scene photos to elicit the feeling of disgust.⁹⁷ The study found that when jurors felt moderate to high levels of disgust, they also reported increased levels of anger.⁹⁸ The increased anger led to feelings of moral outrage, which then led to the defendant being convicted more consistently.⁹⁹ Importantly, anger did not predict guilty verdicts in the disgust-eliciting scenario unless the jurors also experienced moderate to high levels of disgust.¹⁰⁰ Thus, the study concluded that feeling higher levels of disgust may lead to feelings of anger that can then lead to more punitive decisions towards defendants.¹⁰¹

Finally, individuals can vary in their disgust sensitivity.¹⁰² That is, one individual might find a particular event only mildly disgusting while another individual would find that same event very disgusting.¹⁰³ Research on jurors' decisions suggests that those who have high disgust sensitivity scores are more likely to find the defendant guilty.¹⁰⁴ Accordingly, we decided to examine disgust in more detail to determine how it affects jurors' decisions.¹⁰⁵ In three studies, we examined how disgust sensitivity affected jurors' decisions in a burglary case, as well as whether physical and moral disgust led to different verdicts.¹⁰⁶ Lastly, we examined whether physical or moral disgust, or both, had a similar relationship to anger as previous research had suggested.¹⁰⁷

In each study, the participants listened to a brief summary of a burglary trial.¹⁰⁸ In the trial, disgust was manipulated in one of three ways: (1) no disgust,

⁹⁷ *Id.* at 2073–74.

⁹⁸ *Id.* at 2073.

⁹⁹ *Id.* at 2074.

¹⁰⁰ *Id.*

¹⁰¹ In previous research, disgust was not manipulated or measured and therefore the authors could not draw any conclusions regarding the effect of disgust on decision-making and its role with anger. In the Salerno and colleagues' study, however, disgust was both manipulated and measured, and results showed that when disgust was manipulated, anger was also present. However, anger alone did not explain the verdicts.

¹⁰² See Jonathan Haidt et al., *Individual Differences in Sensitivity to Disgust: A Scale Sampling Seven Domains of Disgust Elicitors*, 16 PERSONALITY & INDIVIDUAL DIFFERENCES 701, 703 (1994).

¹⁰³ See *id.* at 712.

¹⁰⁴ See Andrew Jones & Julie Fitness, *Moral Hypervigilance: The Influence of Disgust Sensitivity in the Moral Domain*, 8 EMOTION 613, 618–19 (2008).

¹⁰⁵ See Schweitzer et al., *supra* note 43, at 8.

¹⁰⁶ *Id.*

¹⁰⁷ *Id.*

¹⁰⁸ *Id.* at 10.

(2) physical disgust, or (3) moral disgust.¹⁰⁹ After hearing the trial summary, mock jurors were then asked to provide a verdict and rate their feelings of anger, sadness, disgust, and fear.¹¹⁰ Additionally, participants completed a scale measuring their individual disgust sensitivity.¹¹¹ Across the three studies, physical and moral disgust were manipulated differently. For example, in Study One, the no disgust condition explained that the defendant was captured on the homeowner's security video petting the homeowner's cat.¹¹² In the physical disgust condition, the defendant was seen sifting through the cat's litter with his hands,¹¹³ and in the moral disgust condition, the defendant was seen penetrating the cat's anus using his finger.¹¹⁴

1. Study One

In Study One, the participants who were higher in disgust sensitivity were more likely to convict the defendant.¹¹⁵ Also, those who were in the moral disgust condition reported higher feelings of disgust, anger, and sadness.¹¹⁶ Further, those in the moral disgust condition were more likely to convict the defendant compared to the physical and no disgust conditions.¹¹⁷ However, to determine the effect of emotions on decision-making, we looked at which emotions explain why a disgusting event leads to higher conviction rates.¹¹⁸ In other words, we examined whether the moral disgust condition created higher levels of disgust feelings than the physical disgust condition, which would then lead to higher conviction rates (known as a mediation model).¹¹⁹ Unfortunately, we did not find this effect in Study One.¹²⁰ When examining anger, we found that participants in the moral disgust condition reported higher levels of anger which then predicted higher conviction rates.¹²¹

From these results, it is inferred that a disgusting event is related to feeling angry, which leads to more guilty verdicts for the defendant.¹²² However, previous

¹⁰⁹ *Id.* at 10–11.

¹¹⁰ *Id.* at 11–12.

¹¹¹ See Bunmi O. Olatunji et al., *The Disgust Scale: Item Analysis, Factor Structure, and Suggestions for Refinement*, 19 PSHCHOL. ASSESSMENT 281, 297 (2007); see also Schweitzer et al., *supra* note 43, at 13.

¹¹² See Schweitzer et al., *supra* note 43, at 13.

¹¹³ *Id.*

¹¹⁴ *Id.*

¹¹⁵ *Id.* at 12.

¹¹⁶ *Id.* at 13–14.

¹¹⁷ *Id.* at 15.

¹¹⁸ *Id.*

¹¹⁹ *Id.*

¹²⁰ *Id.*

¹²¹ *Id.*

¹²² *Id.*

research showed that feelings of anger led to a higher likelihood of guilty verdicts only when mock jurors also reported feeling moderate to high levels of disgust in a disgust-eliciting scenario.¹²³ As such, we decided to examine whether the presence of both disgust and anger would better explain the effect of the disgust condition on mock juror decisions.¹²⁴ In other words, would the moral disgust scenario evoke feelings of disgust, which would then trigger feelings of anger, leading to higher conviction rates? Further, would accounting for both disgust and anger be a superior explanation for the increase in conviction rates as opposed to accounting for only one emotion? In another mediation model, we examined whether those in the moral disgust condition would report higher levels of disgust, which would then lead to higher levels of anger, leading to more guilty verdicts.¹²⁵

As hypothesized, those who were in the moral disgust condition reported higher levels of disgust, which led to higher levels of anger, resulting in mock jurors convicting the defendant more often.¹²⁶ Hence, a morally disgusting event led to higher feelings of disgust, which led to higher feelings of anger, resulting in more guilty verdicts.¹²⁷ Having both disgust and anger in this model is statistically superior to anger alone—explaining why moral disgust leads to higher conviction rates—because accounting for both emotions statistically predicts conviction rates better than anger alone.¹²⁸ Although initially the results showed that a morally disgusting act led to increased conviction rates, it is more likely that a morally disgusting act evokes feelings of disgust in mock jurors, thereby increasing their feelings of anger, which leads to more convictions.

2. *Study Two*

We replicated the findings of Study One in Study Two using a different moral disgust condition.¹²⁹ In Study One, the homeowner's cat was physically violated which may have constituted an additional crime. In order to remedy this problem, Study Two followed the same procedures as Study One, except those in the moral disgust condition heard that the defendant masturbated while in the presence of the cat.¹³⁰ The results were largely the same as in Study One, with the moral disgust condition evoking the highest levels of disgust,¹³¹ leading to higher

¹²³ See Salerno & Peter-Hagene, *supra* note 96, at 2074.

¹²⁴ See Schweitzer et al., *supra* note 43, at 13.

¹²⁵ *Id.* at 16.

¹²⁶ *Id.* at 16–17.

¹²⁷ *Id.*

¹²⁸ *Id.* at 17.

¹²⁹ *Id.* at 19.

¹³⁰ *Id.*

¹³¹ *Id.* at 20.

feelings of disgust and anger, which led to higher conviction rates.¹³² However, the morally disgusting acts in Studies One and Two elicited the highest levels of disgust in the participants. This result might suggest that it is the *degree* of disgust that is driving higher conviction rates, instead of the *type* of disgust.¹³³ In other words, the morally disgusting acts in Studies One and Two were more disgusting than the physically disgusting act; the results may have nothing to do with the *morality* of the acts.

3. *Study Three*

In the third study, we attempted to eliminate the problem identified in Study Two by matching the disgust conditions on reported feelings of disgust.¹³⁴ In Study Three, the participants followed the same procedures as in Studies One and Two, however the disgust conditions differed.¹³⁵ The moral disgust condition was the same as in Study One, where the defendant penetrated the anus of the cat.¹³⁶ In the physical disgust condition, the defendant was captured on video eating the cat litter.¹³⁷ Again, we largely replicated our previous findings, with a few exceptions.¹³⁸ In Study Three the mock jurors were more likely to convict the defendant for the morally disgusting condition; however, contrary to the first two studies, they were more likely to find the defendant not guilty in the physical disgust condition.¹³⁹ Additionally, unlike Studies One and Two, we found that when the mock jurors heard about the morally disgusting act, they reported feeling more disgusted, which led them to vote guilty more often—the level of disgust mediated the effect of the moral disgust condition on verdict.¹⁴⁰ More importantly, Study Three was consistent with our finding that moral disgust increased the level of disgust, which thereby increased the level of anger, resulting in higher conviction rates.¹⁴¹

Consistently, in all three studies we found that morally disgusting acts were more likely to lead to guilty verdicts.¹⁴² Although mock jurors reported experiencing anger, disgust, and sadness, only anger and disgust affected mock

¹³² *Id.* at 21–22.

¹³³ *Id.*

¹³⁴ *Id.* at 23.

¹³⁵ *Id.*

¹³⁶ *Id.*

¹³⁷ *Id.*

¹³⁸ *Id.* at 24–26.

¹³⁹ *Id.* at 24.

¹⁴⁰ *Id.* at 25.

¹⁴¹ *Id.* at 25–26.

¹⁴² *Id.* at 27.

jurors' decisions.¹⁴³ We found that a morally disgusting act can lead to feelings of disgust, but will not always lead to a greater likelihood of a guilty verdict.¹⁴⁴ We also found that a morally disgusting act can lead to feelings of anger, and anger alone can predict more guilty verdicts.¹⁴⁵ However, the combination of both disgust and anger better explains why jurors are more punitive towards defendants who commit morally disgusting acts.¹⁴⁶ Across the three studies, we found that moral disgust led to feeling more disgusted, which led to feeling angrier, resulting in higher conviction rates.¹⁴⁷ Although anger is hypothesized to lead to more punitive decisions, it seems to operate through the feeling of disgust when presented with a morally disgusting event.

III. CONCLUDING REMARKS

Many emotions can be elicited during a criminal trial. The current psychological literature on emotion focuses on negative emotions such as sadness, anger, fear, and disgust. These studies suggest that while sadness does not seem to affect jurors' decisions, anger and disgust do. Further, it is difficult to say whether fear affects jurors' decisions because researchers have been unable to elicit fear in mock jurors. Our studies suggest that generally, anger predicts more punitive decisions and affects how much mock jurors weigh prosecutorial evidence. Additionally, studies from our lab suggest that different types of disgust predict different mock jurors' decisions. For example, when a morally disgusting event occurs, both feelings of disgust and anger are present. Although a morally disgusting event increases feelings of anger, which increases guilty verdicts, this may not fully explain all of the emotions involved in higher conviction rates. In the final model (Study Three), we found that a morally disgusting event increased feelings of disgust, which increased feelings of anger, which then led to higher conviction rates.¹⁴⁸

Attorneys, judges, and other players in legal proceedings would benefit from understanding the potential effects of emotions on jurors' decision-making. As mentioned previously, theories of emotion suggest that emotions such as sadness and fear lead to feelings of uncertainty.¹⁴⁹ Uncertainty can signal to jurors that they need to keep searching for information and process information more thoroughly.¹⁵⁰ Conversely, other emotions, such as anger and disgust (particularly

¹⁴³ *Id.*

¹⁴⁴ *Id.*

¹⁴⁵ *Id.*

¹⁴⁶ *Id.*

¹⁴⁷ *Id.*

¹⁴⁸ See *supra* notes 134–47 and accompanying text.

¹⁴⁹ See *supra* notes 71–85, 95 and accompanying text.

¹⁵⁰ See *supra* notes 71–85, 95 and accompanying text.

moral disgust), can lead to feelings of certainty and heuristic information processing.¹⁵¹ Thus, legal professionals should be aware that anger and disgust have potentially negative consequences on jurors' decisions.

Lastly, a note of caution for legal professionals and researchers alike; while this research elucidates the effects of emotions on *mock* jurors' decision-making, it is still unclear how these emotions affect jury decision-making in the real world. Our lab is currently examining jury deliberations to provide a more realistic account of the effects of disgust and anger on final jury decisions. Although the studies reviewed above are beneficial in understanding how emotions can affect individual mock jurors' decisions, by examining how these emotions operate in all jurors charged with reaching a verdict, we will be able to better understand the relationship between the role of emotions and juror decision-making in the courtroom.

¹⁵¹ See *supra* notes 71–85, 95 and accompanying text.