Negative emotions felt during trial: The effect of fear, anger, and sadness on juror decision making

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Abstract

During trial, jurors may experience a variety of emotions, many of which are negative. The current study examined the effects the negative emotions anger, fear, and sadness had on jurors’ sentencing decisions and explored whether Cognitive Appraisal Theory or the Intuitive Prosecutor Model could explain these effects. Jurors viewed the sentencing phase of a capital murder trial and were asked to sentence the defendant. Results indicated that after viewing the trial, jurors reported increased anger and sadness, but not fear. However, only change in anger affected jurors’ sentences. Jurors who reported a greater change in anger were more likely to sentence the defendant to death. This effect was mediated by the level of importance jurors placed on the prosecution’s evidence and argument. As would be predicted by the Intuitive Prosecutor model, increased anger led to higher ratings of the importance of the prosecution evidence. The increased importance of the prosecution evidence led to an increase in death sentences. Implications are discussed.

Keywords: Decision making, jurors, emotion, capital trials, anger
Negative emotions felt during trial: The effect of fear, anger, and sadness on juror decision making

Acting as a juror in a trial, particularly a homicide trial, could elicit powerful negative emotions. At some point during the trial, jurors may feel anger, sadness, and/or fear in response to the testimony they hear. Whether those emotions impact later decisions has been a topic of recent interest among psycholegal researchers and is the focus of the present study. We examined how emotions impacted mock jurors’ decisions with three goals in mind. First, we examined if the negative emotions of anger, fear, and sadness were aroused when jurors participated in the sentencing phase of a capital trial. Second, we tested the extent to which any of those emotions, once aroused, impacted sentencing decisions. Finally, we tested whether several theories of emotion and decision making helped explain significant findings.

**Emotions Aroused at Trial**

Jurors who watch a trial likely experience a variety of emotions, and this might be especially true for jurors who decide capital cases. By definition the trial will include details about loss of life and may include information that could evoke a variety of negative emotions. Though most would agree that negative emotions are likely aroused at trial, few researchers have tested this directly.

In a recent study, Georges, Wiener, and Keller (2013) examined the extent to which 13 different emotions were aroused during a death penalty case. They measured emotions prior to and at different points during the trial and found that three negative emotions increased in magnitude during the trial: disgust, frustration, and anger. At each point in the trial at which they measured emotions (e.g., after opening arguments during the guilt phase, after opening arguments during the penalty phase), disgust, frustration, and anger were significantly higher
than pre-trial measures. Though Georges et al. (2013) did not measure fear and sadness, we propose that these emotions would also increase during trial. Further, there is theoretical and empirical support to predict that the arousal of fear and sadness would lead to different decision outcomes than the arousal of anger.

**Emotions and Decision Making: Appraisal Theories**

Appraisal theories, such as Tiedens and Linton’s (2001) Cognitive Appraisal Theory, posit that emotions affect decisions because they recruit specific processing styles. Thus, an emotion such as anger leads to a narrowing information processing style, which then impacts subsequent decisions. According to this approach, specific negative (and positive) emotions are associated with a unique configuration of cognitions, or appraisals, about the perceived cause and nature of an emotional experience. Although there is some debate about the causal influence of these cognitive appraisals, there is consistent evidence that certain thoughts and perceptions are accessible when a person experiences a particular emotion.

Anger and sadness are the emotions that have been most studied and have been shown to lead to *different processing and decision styles*. To illustrate, Keltner, Ellsworth, and Edwards (1993) induced sad and angry moods in individuals and asked them to evaluate hypothetical outcomes. They found that angry individuals tended to make more dispositional attributions whereas sad individuals tended toward situational attributions. Moreover, people tended to feel angry when they perceived an attainable goal had been blocked by the actions of another person (Lerner & Tiedens, 2006). As a result, anger is associated with a general sense of certainty about the cause and a strong motivation to approach desired ends (Harmon-Jones, Segilman, Bohlig, & Harmon-Jones, 2003). In contrast, people tended to feel sad when they perceived that some negative self-relevant event had occurred as the result of an uncontrollable circumstance or
situation (Keltner et al, 1993). Once aroused, sadness is associated with a general sense of uncertainty (Smith & Ellsworth, 1985) about the cause and a more cautious mindset (Forgas, 1999). Thus, our emotional states are associated with quite distinct cognitive appraisal patterns.

In a series of studies, Tiedens and Linton (2001) directly tested the idea that the certainty associated with some emotions (e.g., anger) tends to minimize the depth of information processing, while the uncertainty associated with other emotions (e.g., sadness) tends to facilitate information processing. Across four studies they found that participants who recalled experiencing emotions that increase certainty appraisals (including anger in one study) were more likely to use stereotypes in their judgments and also more likely to be persuaded by weak arguments delivered by a credible source (i.e., peripheral cue). In contrast, participants recalling uncertainty emotions (including sadness in one study) showed the opposite effect. Based on these results, Tiedens and Linton (2001) concluded that emotions that prime certainty (e.g., anger) induce shallow, heuristic information processing, while emotions that prime uncertainty (e.g., sadness) promote more thorough and systematic information processing.

There is also some evidence that sadness and anger can have diverging effects on juror information processing. Semmler and Brewer (2002) examined the influence of sadness on juror information processing. Mock jurors were randomly assigned to hear one version of a vehicular manslaughter case that either had been developed to evoke sadness or a non-emotional state (i.e., neutral mood control). They also manipulated the presence of factual and logical inconsistencies in the testimony of witnesses. Mood did not influence the number of inconsistencies detected, but, consistent with Cognitive Appraisal Theory, jurors who heard the sad version of the trial were more accurate in recalling the details of the inconsistencies compared to participants in the neutral condition. Although anger was not manipulated in the study, the researchers were able to
examine the influence of this emotion on information processing using participant ratings from a mood manipulation check. As self-reported anger increased, the detection of inconsistencies and accuracy of the inconsistencies detected decreased (Semmler & Brewer, 2002). Thus, sadness appeared to facilitate juror information processing, while anger tended to impede it.

Fear has been less studied by researchers, but there is evidence that, much like sadness, fear elicits uncertainty (Lerner & Keltner, 2000; Raghunathan & Pham, 1999) and leads to more careful information processing (Kligyt, Connolly, Thiel, & Devenport, 2014; Lerner & Keltner, 2000; Parker & Isbell, 2010). Parker and Isbell (2010) examined differences between fear and anger on political information processing. After inducing fear or anger, participants were given the names of two mock candidates that were running against each other in a Democratic primary. Participants were allowed to access a Web site containing information about the candidates and the positions they held on a variety of issues. Parker and Isbell (2010) found that, as compared to the angry condition, participants in the fear condition spent more time searching the Web site for information and were subsequently more likely to choose a candidate whose positions matched their own. In sum, fear appears to lead to more careful information processing and more informed decisions.

Appraisal theories suggest that emotions might affect decisions because, once aroused, emotions alter the depth of information processing. Anger leads to shallower processing, while fear and sadness facilitate processing. Thus, in a capital trial, jurors who become angry might narrow their processing of information and might pay less attention to the details presented. On the other hand, jurors who become fearful or sad may pay more attention to trial details. If this were the case, we would predict that any significant connections between emotions felt at trial
and sentencing decisions would be mediated by a measure of how well information was processed at trial.

In the present study, we varied the strength of the mitigating factors in the case. Half of the jurors received weak and half received strong mitigating evidence (explained in further detail later in this paper). We later asked jurors to recall the mitigating evidence presented after watching the trial, and each juror received a recall score. We predicted that to the extent Cognitive Appraisal Theory was correct, jurors who became sad and fearful during trial would be: 1) better able to recall details from the trial, and 2) more sensitive to the weak versus strong mitigating evidence. In other words, if jurors were in the strong condition, they would hear mitigating evidence that argues for leniency and would therefore be more likely to give a life sentence, but in the weak condition there would not be compelling evidence to argue for leniency, and jurors would be more likely to give a death sentence. On the other hand, jurors who became angry were expected to recall fewer details of the evidence from the trial and not be sensitive to the weak and strong mitigating evidence manipulation. Finally, consistent with Cognitive Appraisal Theory, if any of the emotions (anger, fear, or sadness) significantly predicted sentencing decisions, we predicted that recall scores would mediate the relationship.

**Emotions and Decision Making: The Intuitive Prosecutor**

A slightly different view of the effect of emotions (and particularly the role of anger) on decision making has been proposed by Tetlock (Goldberg, Lerner & Tetlock, 1998; Rucker, Polifroni, Tetlock & Scott, 2004; Tetlock et al., 2007), Darley (Darley, 2001; Darley & Pittman, 2003; Solan & Darley, 2001), and their colleagues. In their view, anger comes from moral outrage that one might feel at trial, and this moral outrage requires some retribution or punishment. Though they acknowledge the appraisal framework, they posit that decisions
reached while angry will be punitive. That is, in their view it is the desire to mete out justice that is the driving force for angry jurors’ decisions. Tetlock and colleagues (Goldberg, Lerner & Tetlock, 1998; Tetlock, et al., 2007) refer to such people as intuitive prosecutors.

In one study, Tetlock and colleagues (Goldberg et al., 1999) induced anger in participants and then had participants read four crime vignettes and rate the extent to which the defendant should be punished, blamed, etc. Importantly, in this study, the anger manipulation (a video of a man beating a helpless teenager) was followed by justice feedback. Following the video, participants were told that either the wrongdoer was caught and punished (Punished condition), was caught but escaped punishment due to a technicality (Unpunished condition), or there was no information about the fate of the wrong doer (Ambiguous condition). They found subsequent ratings on the crime vignettes by participants were influenced by the justice feedback they received. As predicted, only jurors in the Unpunished condition were more punitive in their ratings of the crime vignettes. Thus, the anger induction spilled over to the next task when participants believed that an injustice had occurred in the beating video that they previously watched. According to Goldberg et al. (1999), appraisal theories would predict that anger would lead to an increasing willingness to blame individuals for wrong doing, but appraisal theories would not account for why only anger in the unpunished condition would do so. Instead, they suggest that people are motivated to maintain social order, and that anger affects decision making by arousing the “intuitive prosecutor” in us.

If true, we would make slightly different predictions about the role of anger, fear, and sadness on jurors’ decisions. We would predict that only anger would affect decisions, and that increased anger would be associated with increased punitiveness. Sadness and fear should not lead to punitive behavior because they do not elicit moral outrage or the intuitive prosecutor.
However, if anger arouses an intuitive prosecutor, we would expect that jurors would consider the prosecution’s case to be more influential to their decisions, and this influence would moderate the relationship between anger and decisions. That is, in the present study we asked participants to rate the importance of crucial pieces of evidence in their decision making. If the intuitive prosecutor model is correct, angry jurors should rate evidence that favors the prosecutor as more influential than evidence from the defense, and the influence of the prosecution would moderate any relationship between anger and decisions.

**The Present Study**

The purpose of the present study was to examine what emotions are aroused at a capital trial and to test how those emotions impacted decisions. Mock jurors watched a video of the sentencing phase of a capital trial and were randomly assigned to one of two trial conditions. In the weak mitigating evidence condition \((n=80)\), jurors were told that the defendant's IQ was 80, the defendant was possibly physically abused as a child, and he had been previously diagnosed with depression. In the strong mitigating evidence condition \((n=79)\), jurors were told that the defendant's IQ was 69, the defendant had experienced extensive childhood sexual abuse, and had been previously diagnosed with schizophrenia.

**Hypotheses**

1. After watching the trial video, participants will report increases in anger, fear, and sadness.

2. Based on appraisal theories and the intuitive prosecutor model, we predict that increases in anger would result in more death penalty decisions.

3. If appraisal theory is correct, sadness and fear should not impact sentence directly. Instead, in the weak mitigating condition, sadness and fear should be associated with death sentences, but in the strong mitigating condition, fear and sadness should lead
to increases in life sentences. Also, mitigating evidence recall scores should be higher when there are increases in sadness and fear, and lower with increases in anger. Finally, we predicted that recall scores would mediate significant relationships between emotions and sentencing decisions.

4. If the Intuitive Prosecutor Model (e.g., Tetlock et al., 2007) is correct, only anger should be related to sentencing decisions, and increasing anger should lead to increases in death decisions. We also predicted that anger, but not fear and sadness, would lead participants to become “intuitive prosecutors,” rating prosecution evidence as more important to their verdicts than defense evidence. No such relationship would be predicted for fear and sadness. Finally, we predicted that ratings of prosecution importance would mediate the relationship between anger and sentencing decisions.

Method

Participants and Design

One hundred and fifty-nine death qualified participants (68 male, 91 female) ranging in age from 18 to 66 years ($M = 24.67$, $SD = 9.73$) participated. Participants were recruited through the University of Wyoming and University of North Carolina – Wilmington psychology research pools as well as Amazon’s Mechanical Turk (mTurk). University participants received partial course credit for their participation, and mTruk participants were paid $8. Participants were randomly assigned to one of two conditions: strong or weak mitigating evidence. The primary dependent variable was sentence (life in prison without the possibility of parole or death).

Materials and Procedure
All participants completed the death qualification questionnaire, signed a consent form, completed the PANAS-X, viewed a reenactment of the sentencing phase of a capital murder trial, and completed a post-trial questionnaire.

**Death Qualification Questionnaire.** Potential participants completed a 3-item death qualification questionnaire to qualify them to participate. They were asked to respond to death qualification questions consistent with the *Wainwright v. Witt* (1985) and *Witherspoon v. Illinois* (1968) criteria. The death qualification questions assessed whether possible participants were willing to give the death penalty and whether they would give the death penalty no matter the circumstances. Participants who responded that their attitude toward the death penalty would seriously affect their ability to perform their juror duties, that they would not find the defendant guilty to avoid the possibility of giving the death sentence, or that they would either always or never give the death penalty were excluded from participating and considered not death qualified.

**PANAS-X.** Participants completed a portion of the Positive and Negative Affect Scale - Expanded Form (PANAS-X; Watson and Clark, 1994) both before and after watching the sentencing phase of a reenacted capital murder trial. The PANAS-X examined participants affect on five domains: fear, anger, sadness, joviality, and attentiveness. Fear, hostility, and sadness represented basic negative emotions, and were the focus of the present study\(^1\). Participants rated their current level of 29 negative and positive emotion words on a five point Likert scale (1 = *very slightly or not at all*, 5 = *extremely*).

**Trial Video.** All participants viewed a reenactment of the sentencing phase of a capital murder trial based off of actual trial transcripts. The trial lasted ~45 minutes and described the

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\(^1\) Adjectives, associated with attentiveness and joviality, were included so that participants would not be alerted to our interest in negative emotions.
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murder of Jeff Mason. Participants were told that the defendant Anthony Prentice shot and killed Jeff Mason while attempting to rob the local convenience store where Jeff Mason worked as a clerk. They were told that: 1) the defendant demanded Mr. Mason open the store safe, and when Mr. Mason was unable to open the safe, the defendant repeatedly beat Mr. Mason on the head with the pistol and then shot him in the head, 2) there was a witness in the store who saw the crime, and that identified the defendant, 3) the defendant was found 8 blocks from the crime and that his t-shirt was splattered with blood that was later matched to Mr. Mason. Police, 4) the police found the gun used in the crime in the bushes where the defendant was found, and fingerprints on the gun matched Anthony Prentice and the blood on the gun matched the victim. 

Mock jurors were informed that the jury found Mr. Prentice guilty of first degree murder, and that they would serve as mock jurors for the penalty phase of the trial.

The videotaped trial started with the opening comments from the judge and the attorneys' opening arguments. Participants then saw a parole officer present aggravating evidence stating that the defendant was on parole at the time he committed the crime and that he committed the crime while committing another felony, meeting the prosecution’s standard of proving beyond a reasonable doubt by least one aggravating factor. The next witness for the prosecution was the victim’s wife. She talked about how the death of her husband affected her and her children. For the defense, a clinical psychologist presented mitigating evidence. In the strong mitigating evidence condition, the defendant's IQ was said to be 69, the defendant had experienced extensive childhood sexual abuse, and was previously diagnosed with schizophrenia. In the weak mitigating evidence condition, the defendant's IQ was said to be 80, the defendant was physically abused as a child, and he was previously diagnosed with depression. Lastly, participants saw the attorneys' closing arguments and the received judge’s jury instructions.
Post-Trial Questionnaire. After viewing the trial recording, participants were asked to complete the PANAS-X for a second time and to sentence the defendant to either life in prison without the possibility of parole or death, as well as rate their confidence in their decision\(^2\). Participants then completed a series of questions regarding what mitigating evidence they recalled and how the aggravating and mitigating evidence impacted their sentence.

**Results**

**Data Preparation**

**Recall of Mitigating Information.** Undergraduate research assistants who were blind to the study hypotheses coded answers to the free recall. Mock jurors were instructed to “describe all the mitigating factors that you remember in this case” as an open ended question. Each of the four mitigators received a score of 0, 1, or 2. Responses were given a score of 0 if the mitigator was not mentioned, a score of 1 if the mitigator was mentioned but no other details were provided (e.g., low IQ), and a score of 2 if the mitigator was mentioned and details were provided (e.g., an IQ of 69 in the strong mitigating condition, or 80 in the weak condition). Two coders scored each response and raters achieved adequate inter-rater reliability (\(kappa=.88\)). Discrepancies in scoring were discussed and settled by the primary authors. Recall scores ranged from 0 to 8 (\(M=3.68, SD=1.80\)).

**Rating of Prosecution Evidence.** Two questions assessed the importance of the prosecution evidence. Mock jurors were asked to rate how important each of the following was to reaching their sentence: 1) The defendant committed the crime while he was on parole for another felony, and 2) The defendant committed the crime while in the commission of another felony. Mock jurors rated the questions on a 1 (Totally unimportant) to 9 (Totally important)\(^2\) The PANAS X and the sentencing decisions forms were counterbalanced across participants.
Likert scale. Answers on the two questions were highly correlated \( r = .81 \) and a Prosecution Importance variable was constructed as the mean of the two questions.

**Rating of Defense Evidence.** Using the same scale as in the previous measures, three questions assessed the importance of defense evidence in decisions. Mock jurors rated how important each of the following were in their sentencing decisions: (1) the defendant has a low IQ, (2) the defendant has mental health problems, and (3) the defendant has a difficult childhood. Responses on the three items were highly related \( \alpha = .84 \) and a Defense Importance variable was created as the mean of the three items.

**Hypothesis 1:** After watching the video, participants will report increases in anger, fear, and sadness.

In order to assess changes in fear, anger, and sadness we ran repeated measures ANOVAs with scores from the PANAS-X (before and after trial) as the repeated measure. We found that fear did not increase after viewing the video trial \( F(1,158) = .21, p = .62, \eta_p^2 = .001 \), but sadness and anger did \( F(1,158) = 77.63, p < .001, \eta_p^2 = .33 \) and \( F(1,158) = 80.73, p < .001, \eta_p^2 = .34 \) respectively). As can be seen in Table 1, mock jurors reported increases in sadness and anger after viewing the trial. In order to examine those changes in subsequent analyses, we computed change scores for anger and sadness by subtracting the Time 1 PANAS-X score from the Time 2 PANAS-X score \( \Delta \text{Anger} = \text{PANAS-X}_{2\text{Anger}} - \text{PANAS-X}_{1\text{Anger}}; \Delta \text{Sad} = \text{PANAS-X}_{2\text{Sad}} - \text{PANAS-X}_{1\text{Sad}} \).

**Hypothesis 2:** Increases in anger would result in more death penalty decisions.

A logistic regression was run with sentencing (Life or Death) as the dependent variable and \( \Delta \text{Anger} \) as the independent variable. As predicted, \( \Delta \text{Anger} \) impacted decisions \( \chi^2 = 4.34, \)
$df=1, p=.04, b=.09$), and as can be seen in Figure 1, increases in anger were associated with more death penalty decisions.

**Appraisal Theory Hypotheses**

*Hypothesis 3a: In the weak mitigating condition, sadness would be associated with death sentences, but in the strong mitigating condition, fear and sadness would lead to increases in life sentences*. The variation of weak and strong mitigation would not be significant for changes in anger.

In order to test this hypothesis we ran two logistic regressions. In the first, we examined whether $\Delta$Anger scores interacted with mitigating condition (Strong or Weak) to impact sentencing decisions. The analysis using a model that included $\Delta$Anger, mitigating condition, and the interaction between $\Delta$Anger and mitigating condition, yielded only the main effect for $\Delta$Anger ($X^2(1) = 4.34, p=.04, b=.09$). Mitigating condition and the interaction between $\Delta$Anger and mitigating condition was not significant ($X^2(1) = 0, p=.99$ and $X^2(1) = .95, p=.33$, respectively). The second logistic regression was run and was the same as the first, except with $\Delta$Sad scores as the independent variable. Contrary to expectations, none of the variables reached conventional levels of significance ($\Delta$Sad scores, $X^2(1) = .58, p=.45$; Mitigating condition, $X^2(1) = .13, p=.71$; $\Delta$Sad by Mitigating condition interaction, $X^2(1) = 2.13, p=.15$) though the predicted interaction approached significance.

*Hypothesis 2c: Recall scores would be higher when there are increases in sadness and lower with increases in anger and recall scores would mediate significant relationships between emotions and sentencing decisions.*

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3 Fear was not included in any further analyses because we did not find any changes in fear as a result of watching the trial.
A linear regression analyses was performed to examine whether emotions predicted Recall scores. The omnibus test for the regression was not significant \((F(2,154)= 1.07, p=.35)\), and importantly neither \(\Delta\text{Anger}\) nor \(\Delta\text{Sad}\) predicted Recall \((t=-1.31, p=.10\) and \(t=.20, p=.42\) respectively).

**Intuitive Prosecutor Hypotheses**

*Hypothesis 3a: Anger, but not fear and sadness, would lead participants to become “intuitive prosecutors,” and participants who became angry when watching the trial would rate prosecution evidence as more important to their verdicts than defense evidence.*

The importance of defense evidence was examined with a regression analysis with the Defense Importance score as the dependent variable and \(\Delta\text{Anger}\) scores and \(\Delta\text{Sad}\) scores as the independent variables. The omnibus test was not significant \((F(2,156)= .13, p=.88)\). Also, neither \(\Delta\text{Sad}\) \((t=.48, p=.63)\) nor \(\Delta\text{Anger}\) \((t=-.43, p=.67)\) predicted Defense Importance. A second regression examined if \(\Delta\text{Anger}\) or \(\Delta\text{Sad}\) predicted Prosecution Importance scores. The analysis yielded a significant overall effect \((F(1,162)= 5.94, p=.008)\). \(\Delta\text{Anger}\) \((t= 2.52, p=.01)\), but not \(\Delta\text{Sad}\) \((t=.13, p=.90)\), related to Prosecution Importance. As predicted, as anger increased the importance of the prosecution evidence increased.

*Hypothesis 3b: Ratings of prosecution importance would mediate the relationship between anger and sentencing decisions.*

To test for mediation, the Indirect Mediation macro for SPSS was used (Preacher & Hayes, 2008). This method bootstraps (resamples with replacement) the indirect effect of a predictor variable \(X\) on a dependent variable \(Y\), through a mediator variable \(M\), while adjusting for covariates that were not proposed as mediators in the model. Moreover, the bootstrapping process creates a 95% bias corrected confidence interval of the indirect effect of \(X\)
on Y, through M, where the coefficient is believed to lie. Using 1000 randomly drawn samples with replacement from our dataset, the indirect effect of ΔAnger on sentence through prosecution was 0.034, 95% CI [0.0072-0.0925]. The indirect effect was significant, and as predicted Prosecution Importance mediated the relation between ΔAnger and sentence. Increases in anger made the prosecution evidence more important, which led to increases in death sentences.

Discussion

One of the goals of the present study was to examine if negative emotions are aroused during the sentencing phase of a capital trial. We predicted that watching a trial would arouse negative emotions, and our hypothesis was supported for the most part. We measured fear, anger, and sadness pre- and post-trial and found that mock jurors experienced significant increases in levels of anger and sadness while watching the trial. There was no significant increase in fear.

Our predictions about how emotions would affect sentencing relied on two slightly different theories of emotion and decision making; appraisal theories (e.g., Tiedons & Linton, 2001) and the intuitive prosecutor model (e.g., Tetlock et al., 2007). As previously mentioned, both models predicted similar effects of anger on decision making, but posit different mechanisms to account for decisions. For example, with regard to sadness, appraisal theories would predict that sadness would impact verdicts, but the intuitive prosecutor model would not. Also, differences between anger and sadness on decisions are hypothesized to be the result of different styles of processing according to appraisal theorists, while the differences are hypothesized to be the result of a prosecution bias according the intuitive prosecutor model. Our results fully supported predictions made using the intuitive prosecutor model, and failed to find support for appraisal theories.
According to appraisal theories, anger and sadness could both impact decisions because they lead to different styles of information processing. Because sadness leads to a deeper level of processing, we predicted that increases in sadness would lead to more death sentences when the mitigating evidence was weak, and fewer death sentences when mitigating evidence was strong. We also predicted that increases in sadness would lead to better recall of mitigating information and that increases in anger would lead to decreases in the recall of mitigating information. None of our predictions using the appraisal framework reached conventional levels of significance.

On the other hand, we found consistent support for the intuitive prosecutor model. As predicted, anger but not sadness impacted verdicts. Increases in anger were associated with increases in death sentence decisions. Further, as predicted by the intuitive prosecutor model, mock jurors who became angry rated the importance of the prosecutor’s evidence higher, and the importance of the prosecutor evidence mediated the relationship between anger and sentencing decisions.

Our findings provide support for the intuitive prosecutor model (Tetlock et al., 2007) but also are relevant to concerns that other scholars have voiced about emotional jurors. A long held belief in the legal system is that an emotional juror is an irrational juror (Feigenson, 2000; Solomon, 1990). By this reasoning, all decisions arising from emotional states lack reasoned analysis and are therefore prejudicial. Our findings suggest that an emotional juror is not necessarily irrational. Jurors reported increased sadness after watching the trial, but sadness did not affect their decisions. Anger, on the other hand, might lead to biased decision making. We found that anger affected decisions, and that the Intuitive Prosecutor Theory provided the best explanation for the effect. However, future research should explore this theory in more depth. For example, according to the model, anger leads people to want to punish, but it is unclear
whether the anger needs to be focused at a specific target (e.g., the defendant) or if free flowing anger (e.g., from a mood induction) could result in greater punitiveness. This could be explored by testing if mock jurors who participate in an anger mood induction are more punitive when given a case to consider. Goldberg et al. (1999), described previously, conducted a similar study when they induced anger by showing participants a video beating of a teenager, and later telling participants that the perpetrator got away with the crime (Unpunished condition). Participants who were in the Unpunished condition were more punitive when given other case vignettes. Though they showed that the anger mood induction spilled over to subsequent decisions, it is not entirely clear that free flowing anger would lead to similar outcomes. For example, in the Goldberg et al. (1999) study, the mood induction was similar to the subsequent task. Both were examples of criminal behavior, and the desire to punish the perpetrator of the teen beating could have spilled over to other wrong doers. It would be interesting to see if other anger mood inductions would lead to similar findings. It would also be interesting to test whether similar results would be found in other types of criminal cases, especially cases in which jurors can choose from multiple possible verdicts (e.g., first-, or second-degree murder, manslaughter, or not guilty).

Future research should also examine which aspects of criminal trials are likely to arouse anger. In our trial, there were many pieces of evidence that could have aroused anger. For example, the crime itself could have aroused anger, or the testimony of the victim’s wife recounting the impact of the loss of her husband could have also made jurors angry. We only assessed anger at two points in the trial (before and after) and do not know what pieces of evidence aroused anger, or if it was the trial in its totality that increased anger. Repeated
measures of anger during crucial points in a trial could answer this question, as well as measure whether there is a tipping point at which anger affects decisions.

One of the problems with assessing emotions at various points in a trial is that repeated assessment might alter mock jurors’ emotional states and disrupt the flow of the trial, which might also affect jurors’ emotional states. A previously mentioned study by Georges et al. (2013) used a clever design to surmount this potential problem. They used a between subjects design and assessed jurors emotions prior to trial and then at one other point in time (e.g., after opening arguments during the guilt phase or after opening arguments during the penalty phase). Using this design they showed how emotions, such as anger, varied during different portions of a capital trial. For example, they found that at any point during the trial, anger scores were significantly higher than pre-trial. However, they also found that anger increased dramatically in the beginning of the trial and then leveled off as the trial ended. Georges et al. (2013) did not vary the evidence that was presented during the different parts of the trial, but one could easily use this method to test whether certain types of evidence are more or less likely to arouse anger.

**Limitations**

We did not find an increase in fear in our trial, and while it would be tempting to say that fear is not relevant to jurors’ decisions, that may not be true for jurors in actual trials. Our jurors knew they were participating in a study, and although they watched a realistic re-enactment of a trial, they were not sitting close to or looking at a live defendant. They did not see pictures of the crime scene, which actual jurors could have been exposed to. They did not hear details of the actual murder. Thus, our mock jurors did not experience an increase in fear, but one could reasonably propose circumstances in which fear might increase during an actual trial. Because
there was no increase in fear in the present study, we could not assess how fear affected decisions. Researchers need to devise a paradigm in which they could study the effects of fear to determine if and how it affects juror decision making.

We did not find any evidence that emotions impacted the free recall of evidence, as would be predicted by appraisal theories. One potential explanation was that perhaps the recall measure was too easy. However, the range in recall scores was quite good, suggesting that there was not a ceiling effect on recall. Participants were asked to write down the mitigating evidence, and scores were based on what the mock jurors wrote down. Perhaps recall score reflected not only what mock jurors remembered, but also their willingness to fully write out what they remembered. A follow-up interview to fully explore mock jurors’ memory of evidence could have revealed if the recall measure was a valid and reliable measure of what mock jurors remembered.

Conclusions

In the present study we showed mock jurors reported increases in sadness and anger after watching the sentencing phase of a capital trial. We also showed that anger, but not sadness, affected sentencing decisions. As anger increased so did the likelihood that a juror would give a death, rather than life, sentence. Further, we found that as anger increased jurors were more likely to say that the prosecution evidence was important to their decisions. The importance of defense evidence did not vary with changes in anger. A mediation analysis demonstrated that the importance of prosecution evidence mediated the relationship between anger and sentencing, lending support for the Intuitive Prosecutor Model. There is an accumulating body of evidence
that suggests that emotions experienced at trial, particularly anger, can seep into the decision making process. Perhaps the next step is to see if there are ways to mitigate the impact.
References


Table 1

*Changes in Emotions from Pre-Trial to Post-Trial*

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<td>Post-Trial</td>
<td>9.53</td>
<td>.31</td>
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Figure 1. Change anger scores for mock jurors who sentenced the defendant to life and death.