The Effect of an Emotional Situation on Decision Recipients' and Decision Makers'
Justice Appraisals

By

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Abstract

Previous procedural and distributive justice theories have not accounted for the vivid and emotionally compelling situations in which people often make justice judgments. In this study I investigated whether previous theory generalized to emotionally engaging contexts, such as a forceful police arrest. Undergraduates ($N = 258$) read a vignette in which a student was suspected of possessing a smoke bomb and forcefully arrested. I used a 2 (Role: Suspect, Officer) x2 (Video: Present, Absent) x 2 (Voice: High, Low) x 3 (Guilt/Harm: Harmful, Harmless, Innocent) between-subjects factorial design to test three challenges to Lind and Tyler's (1988) group value model. A path model analysis indicated that factors influencing justice judgments were affected by participants' emotional engagement. When participants were emotionally engaged, deservingness effects were strengthened, and treatment effects were suppressed. These findings suggest that participants used different psychological mechanisms to determine what is fair depending on whether they were more or less emotionally engaged. Implications include the importance of engaging participants emotionally when conducting justice research.

Keywords: Procedural justice, distributive justice, group value model, emotional engagement, deservingness heuristic, decision maker / decision recipient disparity, police-citizen encounter,

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Finally, I dedicate this project to all victims of injustice, and in particular those that have experienced the excessive use of force by the police. My hope is that this research will provide insight on how to maximize justice for both parties during police-citizen encounters.

Table of Contents

List of Appendices

Chapter 1: Literature Review

From Plato (Jowett, 1999) to Rawls (1971), philosophers have sought to understand

the normative meaning of justice. Shortly after the Second World War, psychologists

began investigating the subjective meaning of justice. Instead of inquiring about the

meaning of justice, these psychologists investigated how people *perceive* the fairness of

the distributive outcomes they receive. Early distributive theorists proposed that justice

judgments were based in self-interest – a desire to maximize one's benefits (e.g., Blau,

1967; Homans, 1958). Other researchers, pointing to evidence that people do not always

act in their best interests, rejected self-interest as a motivation for justice (e.g., Adams &

Jacobsen, 1964; Walster, Berscheid, &Walster, 1973). Instead, these researchers

suggested that people are motivated by a desire for equity, and determine what is just

based on a formula that balances inputs and outcomes in relation to the inputs and

outcomes of others. Building on equity theory and research showing that people engaged

in counter-normative victim derogation when they could not restore justice to a victim

(e.g., Lerner & Simmons, 1966), Lerner (1977, 1980) proposed that people have a unique

motivation for justice based on perceptions of deservingness.

Procedural Fairness and the Importance of Voice

Other lines of research began to shift attention away from appraisals of outcome

fairness. In their seminal work on disputants' preferences for various legal proceedings,

Thibaut and Walker (1975) distinguished between a disputant's ability to exert influence

over the *outcome* of a legal proceeding (decision control), and their ability to exert

influence over the *process* used to arrive at a decision (process control). They found that

when determining the fairness of legal procedures, disputants valued process control,

even when they were willing to relinquish decision control (Thibaut & Walker, 1975; Thibaut, Walker, LaTour, & Houlden, 1974). Their findings marked the beginning of investigations into the importance of procedural fairness — a paradigm that remains a focal point of justice research today.

The ability to exert process control is often operationalized as 'voice' — the ability to influence a procedure by expressing one's opinions about treatment preferences (Folger, 1977). Researchers have consistently found that providing a disputant with voice increases their perceptions of fair treatment (e.g., Brockner et. al., 2001; Lind, Kanfer, & Earley, 1990; Tyler, Rasinski, & Spodick, 1985). In interpreting their findings, Thibaut and Walker (1975, 1978) assumed that disputants value process control for instrumental reasons, following the prominent distributive justice theories of their time (e.g., Blau, 1967; Homans, 1958). Considering people to be primarily motivated by self-interest, they theorized that disputants value procedures that maximize process control because these procedures are the most likely to generate favourable outcomes for them. It is important to note that Thibaut and Walker (1975, 1978) did not directly test the mechanisms driving disputants' interest in process control.

The Group Value Model

Researchers soon began to report findings indicating that participants preferred fair procedures even when the procedure was not able influence the outcome, calling Thibaut and Walker's (1975) assumption of instrumental motives into question (e.g., Lind et al., 1990; Lind & Tyler, 1988; Tyler, et. al., 1985). Lind and Tyler (1988) offered the group value model as an alternative explanation for the importance of procedural fairness. Considering that people have a basic psychological need to be valued by their social

group, they theorized that the targets of procedures find those procedures to be fair when

they convey the message that the target is a valued member of their social group. In

particular, Tyler (1989) suggested that three features of fair procedures (relational

criteria) convey this message of social value: neutrality of the procedure, trustworthiness

of decision makers, and respectful treatment. In support for this prediction, Tyler (1989)

found that when people perceive that they have received a neutral procedure, that

decision makers are trustworthy, and that the procedure treats them with respect, people

perceive that they are valued by the social group and consequently judge the procedure to

be more fair (Lind & Tyler, 1988; Tyler, 1989). Since Lind and Tyler's (1988)

publication of *The Social Psychology of Procedural Justice*, the group value model has

become the dominant theory of procedural justice.

Challenges to the Group Value Model

Although the group value model's predictions have received considerable support,

other studies have reported results that challenge its generalizability. The group value

model has also been criticized for failing to account for the vivid and emotionally

compelling situations in which people make justice judgments. A model that examines

how emotion influences justice reasoning should incorporate these challenges to account

for our current understanding of how people make fairness decisions.

Deservingness and procedural fairness. Heuer, Blumenthal, Douglas, and

Weinblatt (1999) argued that the desire to be valued by one's social group, posited by

Lind and Tyler (1988), is a hedonistic desire that is essentially motivated by self-interest.

Heuer et al.'s argument was based on the criticism that early justice research confounded

fairness with favourability. Criticizing instrumental theories of distributive justice, Lerner

(1977, 1980) was among the first to differentiate between these two concepts. He argued that self-interest motivates judgments of favourability, but does not motivate judgments of fairness. Instead, he argued that fairness judgments are based on a unique motivation for justice. Skitka, Winquist, and Hutchinson's (2003) meta-analysis of 89 justice studies, supported this distinction. Skitka and her colleagues found that fairness and satisfaction judgments are empirically distinguishable, with different antecedents and consequences. Based on research showing that people are intrinsically motivated to believe that the world is essentially a just place where people receive what they deserve, Lerner (1977, 1980) suggested that fairness concerns are driven by an intrinsic motivation for justice.

Following Lerner's (1980) justice motivation theory, Heuer et al. (1999) conducted three studies, testing whether perceptions of deservingness moderated the relationship between respectful treatment and perceptions of procedural fairness. They found that respectful treatment was only considered to be *fair* when participants perceived that such treatment was *deserved* (Heuer et al., 1999). A number of laboratory and field studies have demonstrated the moderating effect of deservingness with both distributive and procedural justice judgments (e.g., Hafer & Bègue, 2005; Lerner & Simmons, 1966; Sunshine & Heuer, 2002).

The decision maker – decision recipient disparity. Since Thibaut and Walker's (1975) initial work in this field, procedural justice research has been primarily focused on the perceptions held by the recipients of decisions that are made by a third party. For example, the group value model primarily considers how decision recipients perceive messages of social value in evaluative, third-party procedures (e.g., Tyler, 1988; Tyler & Lind, 1992). But, as Heuer, Penrod, and Kattan (2007) point out, it is important to

consider how these third-party decision makers reason about fairness, and the motivations that drive their fairness decisions.

Exploring this question across four studies, Heuer et al. (2007), found that decision makers use different criteria to reason about the fairness of procedures than the relational criteria used by decision recipients. They found that when decision makers assess the fairness of evaluative procedures, they are more concerned with arriving at a socially beneficial outcome than meeting relational concerns. Heuer et al.'s (2007) finding of a disparity in motivation between the justice judgments of decision recipients and decision makers raises two questions: what motivates the justice judgments of decision makers, and does emotional engagement influence these motivations?

Mediators of decision makers' justice judgments. Since Heuer et al. (2007), no research has been published that directly investigates the concerns that drive decision makers' fairness judgments. Nevertheless, Heuer et al. (2007) discuss a number of potential social benefit concerns that may mediate the fairness judgments of decision makers. These potential mediators include perceptions about whether the target received the treatment they deserved, about the effectiveness of the procedure in protecting the group, about the seriousness of the threat to the group, and about one's personal responsibility to protect the group. Here, I discuss the available research for these potential mediators of decision makers' justice judgments.

Perceptions of deservingness. In their first two studies, Heuer et al. (2007) found that when considering the fairness of a police search procedure, judges looked to whether the search resulted in a beneficial outcome (the apprehension of contraband), rather than whether the police treated the suspect respectfully. In their discussion, Heuer et al. (2007)

speculate that these judges may have based their justice judgments on their perceptions of whether the decision recipient deserved the search procedure. Their speculation is supported by data presented by Sivasubramaniam, Heuer, Schmidt, and Silva (2009), which showed that perceptions of deservingness mediated the effect of a coercive procedure on procedural fairness judgments.

Efficacy of the procedure and threat to the community. Heuer et al. (2007) specifically tested efficacy and threat. In three of their four studies, Heuer et al. (2007) manipulated whether the outcome of an encounter with authorities resulted in societal benefits. These first three studies confounded two aspects of beneficial outcomes: the seriousness of the threat that was averted by the authorities' actions, and effectiveness of the procedure used by the authorities in protecting the group. To tease apart this confound, in their fourth study, Heuer and his colleagues manipulated the level of threat to the group, and measured participants' perceptions of the efficacy of the procedure in protecting the group. Heuer et al. (2007) found that the effect of the threat manipulation on perceptions of procedural fairness and participants' approval of the intervention were fully mediated by perceptions that the procedure would be effective in preventing the threat. When the researchers examined how participants determined whether they approved of the procedure, they found that this efficacy mediation was further moderated by role, such that the mediating effect of efficacy on approval was stronger among decision makers than among decision recipients.

Responsibility to protect the group. When authorities are invested with the power to make decisions, they are given the responsibility to make decisions on behalf of their constituents. For example, upon being sworn into office, police officers are imbued with

the power to use coercive force to protect the community (Bittner, 1970). Heuer et al.

(2007) suggested that decision makers' fairness judgments might be motivated by a

perception of responsibility to protect the group. Investigating this suggestion,

Sivasubramaniam, Heuer, Becker, Hobgood, and Newkirk (2008) found that role

moderated the effect of perceptions of responsibility to protect the group on judgments of

procedural fairness and procedural satisfaction. Justice judgments were affected more

strongly by a perceived responsibility to protect the group among decision makers than

among decision recipients.

Little research have investigated the motivators specific to decision makers' justice

judgments. It is beyond the scope of this thesis to specifically test the relative merit of the

motivations suggested by Heuer et al. (2007). Nevertheless, the findings discussed above

highlight the importance of accounting for the unique motivations of both decision

recipients and decision makers.

Emotional Engagement as an Antecedent to Justice Reasoning: Lerner's Critique

Although research provides support for Lerner's (1977, 1980) justice motivation

theory, modern justice research has offered little evidence for a unique motivation for

justice based on deservingness. In a critique of modern justice research, Lerner (2003)

asks why contemporary research findings support the group value model's fundamentally

instrumental motivations for justice, despite the strong evidence for the justice motivation

demonstrated in early experimental studies (Lerner, 1980; Lerner & Matthews, 1967;

Lerner & Simmons, 1966). Considering the highly emotionally engaging nature of these

early experimental studies,[1] Lerner (2003) suggested that modern research fails to find

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[1]In these studies, Lerner (1980) and his colleagues led participants to believe that a randomly
selected participant (actually a confederate) received a series of painful electric shocks. Lerner

evidence for the justice motive because the laboratory contexts in which judgments are

presently studied themselves prompt participants to make appraisals that are cold,

systematic, and self-interested. He suggested that when participants are presented with

stimuli that have a low emotional impact, the participants' primary motivation would be

to advance self-interests instead of attempting to restore their sense of justice. According

to Lerner (2003), participants in these low impact studies are either not experiencing a

violation to their sense that the world is fundamentally just, or the study design allows

participants to consider socially appropriate responses and engage in impression

management. Alternatively, Lerner (2003) suggested that when emotionally impactful

stimuli are shown to participants, their need to restore their sense that the world is just

would take precedence. These participants will not have the time or cognitive resources

to consider socially appropriate responses. For these engaged participants, perceptions of

justice will occur heuristically, and these perceptions will enact certain scripts to restore

justice, for example, counter-normative victim derogation (see Lerner & Simmons,

1966). In this paper, I use the term "emotional engagement" to refer to the emotions that

participants experience in response to a particular stimuli. I use this term to emphasise

Lerner's (2003) argument that it is participants' engagement with stimuli that determines

both their emotional response and whether the deservingness heuristic is evoked.

Procedural justice research, and in particular, Lind and Tyler's (1988) group value

model are especially vulnerable to Lerner's (2003) critique. Few laboratory studies

investigating procedural justice have used emotionally arousing stimuli or contexts (e.g.,

Lind et al., 1990). Additionally, Tyler and his colleagues have preferred using field

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(1980) specifically speaks of participants' intense emotional reactions to, and protestations of, the
injustice of this procedure.

surveys in their research (e.g., Tyler, 1989, 1994; Tyler & Huo, 2002), Lerner (2003) was especially critical of the reliability of Tyler's survey methods, noting the telephone survey design used by Tyler (1994) was particularly vulnerable to impression management.

Lerner's critique is practically and theoretically relevant as justice judgments often occur in emotionally charged scenarios, including police-citizen encounters or courtroom proceedings. Although relatively little research has examined the generalizability of our current knowledge of justice judgments to emotionally charged contexts, the extensive body of knowledge in the field of emotion and cognition (for an overview see De Houwer & Hermans, 2010) offers theoretical support to Lerner's (2003) critique.

Hot Justice: The Effect of Emotion on Justice Appraisals

When discussing research on justice and emotion, it is useful to conceptualize the process of determining justice as a linear progression of cause and effect. This process begins when an event occurs and an individual is presented with a stimulus. This stimulus triggers various cognitive processes, enacting certain motivations (e.g., group value, deservingness) that ultimately lead to a conclusion about the fairness of the event. This perception of fairness can then further influence perceptions of satisfaction, which in turn can influence perceptions of legitimacy. After the individual perceives the stimulus, a violation of one's values can elicit an emotional response at any point in this causal chain.

The extant literature on emotion and justice judgments has primarily focused on individuals' emotional responses subsequent to a determination of injustice (e.g., Carlsmith & Darley, 2008; Sherman, 2003; Wenzel, Okimoto, Feather, & Platow, 2009).

Lind and Tyler (1988) predicted that a perceived violation of procedural justice would result in anger. Other research demonstrates a link between violations of justice and emotion, but does not establish a causal relationship. For example, in a meta-analysis of 39 studies, Orth and Wieland (2006) demonstrated a strong association between victimization and feelings of anger.

Unlike these studies, Lerner (1980) suggested that the emotional response to a stimulus occurs simultaneous to the perception of injustice. He observed that when faced with a vivid and normatively unjust stimulus (e.g., an innocent victim receiving painful electrical shocks) people respond immediately with strong and visceral emotions. Lerner and Clayton (2011) further discuss evidence demonstrating that people have a preconscious, automatic reaction to a witnessed injustice (e.g., Hafer, 2000). Demonstrating this emotional response, Goldberg, Lerner, and Tetlock (1999) were able to reliability manipulate anger by showing participants a video of a criminal violation. Interestingly, anger, moderated by perceived injustice, influenced participants' desire for retribution in a subsequent, supposedly unrelated study. These findings suggest that emotional responses occur alongside perceived injustices and work together to affect subsequent justice reasoning. Although research has considered the intersection of justice and emotion, little research has considered the effects of an emotional response on the known antecedents to perceptions of justice – perceptions of group value, deservingness, and role. In this study, I consider how emotion interacts with these antecedents to justice.

Emotion and Deservingness. Lerner (1975, 1980) explains these preconscious emotional responses as the result of a violation of a deep commitment to the belief that people receive what they deserve. Lerner theorized that as children mature and face

circumstances that require the delay of gratification, they learn that current sacrifice will lead to future rewards. This develops into a personal contract that is reinforced over time and eventually develops into a worldview. Circumstances that threaten this belief in a just world are perceived as injustices. Higgins' (1987) self-discrepancy theory offers theoretical insight into why people would respond emotionally when presented with an injustice.

Self-discrepancy theory suggests that people experience certain predictable emotions when faced with discrepancies between realities and standards (Higgins, 1987). Higgins proposed that beliefs about the self could be categorized into three domains: the *actual* self (the attributes someone believes he or she really possesses), the *ideal* self (the attributes someone believes he or she would ideally possess), and the *ought* self (the attributes someone believes he or she should possess). Each of these domains could be viewed from two perspectives, our *own* perspective, and the perspective of a significant *other* (Higgins, 1987). Emotions are triggered when a person's *actual* self is different from representations of his or her *ideal* or *ought* selves (from our *own*, or some *other* perspective). Higgins classified these emotions into two categories: dejection-related emotions (e.g., feeling dissatisfied, sad, or gloomy) that are related to the absence of positive outcomes, and agitation-related emotions (e.g., feeling guilty, threatened, or angry) that are related to the presence of negative outcomes. He found that discrepancies between representations of our *actual* self and representations of our *ideal* self results in dejection-related emotions, whereas discrepancies between our *actual* self and our *ought* self leads to agitation-related emotions.

A challenge to our deeply held commitments to justice represents a discrepancy

between the way that events occur in reality, and the way we believe the world *ought* to be. Applied to the justice motivation theory, Higgins' (1987) self-discrepancy theory suggests that people faced with an injustice respond emotionally because they are faced with a discrepancy between the outcome that a person *ought* to receive, and the outcome they *actually* received. Higgins' (1987) theory also predicts what types of emotions people will experience when faced with an injustice. Because an undeserved outcome represents a challenge to our belief in a just world and our personal contract, such an outcome will be negative and should result in agitation-related emotions including anger, fear, and tension.

Emotion and cognition. Appraisal theories of emotion propose that cognition and emotion are intrinsically linked (Arnold, 1960; Frijda, 1986; Lazarus, 1991). According to these theories, the emotional experience starts as people continuously engage in a cognitive appraisal of their environment based on a range of subjective criteria including novelty, valence, needs, goals, and values (Ellsworth & Scherer, 2003). The other components of an emotional experience, the feeling, somatic, motivational, and motor responses are uniquely experienced by the individual, based on their initial appraisal of a stimulus (Moors, 2009). The justice literature has generally not distinguished between perceptions and judgments of justice. However, a broad range of literature has examined how the emotions stemming from appraisals have an impact on further cognitive processes. Of particular relevance to this study is the distinction made in the emotion and cognition literature between more heuristic processes of perception and categorization and higher cognitive processes of judgment (for a review see Blanchette & Richards, 2010; Brosch, Pourtois, & Sander, 2010) — mirroring Lerner's (2003) distinction

between heuristic and systematic appraisals.

Cognitive scholars consider perception, the transformation of stimuli in the environment into a subjective and reportable experience and the subsequent categorization of those experiences, to be critical to cognition (Brosch et al., 2010; Harnad, 2005). Stimuli that are relevant to well being and survival require rapid, prioritized responses; they are processed as "emotional stimuli", allowing for more efficient categorization, serving to reduce complexity and to optimize adaptive behaviour (Brosch et al., 2010). The heightened perception and categorization of an emotional stimulus may make certain scripts more readily available, for example, "bad things happen to bad people" (Lerner, 2003, p. 389). Based on these processes of perception and categorization of emotional stimuli, emotionally arousing situations may particularly engage perceptions of deservingness. Supporting this conjecture, Goldberg, Lerner, and Tetlock (1999) found that anger and the perception that an injustice had occurred increased punitiveness, suggesting that participants were motivated to re-establish justice.

In contrast, research on emotion and higher cognitive judgment processes define judgment as the process whereby evidence is weighed and the likelihood of different outcomes occurring is evaluated (Blanchette & Richards, 2010). Risk judgments consider the likelihood that an undesirable event will occur. Like favourability, desirability is based in self-interest. These calculated analyses of risk are similar to the self-interested decisions made during many documented distributive and procedural satisfaction appraisals. For example, the group value model predicts that procedures that lower the likelihood of a desired outcome occurring (e.g., acceptance by the group) will be judged to be less fair whereas procedures that increase the likelihood of a desired outcome

occurring will be judged to be more fair. A number of studies on the effects of emotion

on judgment have identified robust effects of different discrete negative emotions on

judgments of risk (e.g., Lerner & Keltner, 2000). This research has found that anger

lowers estimates of risk while fear increases estimates of risk (Lerner, Gonzalez, Small,

& Fischhoff, 2003). The corollary of this finding suggests that anger should interact with

judgment processes to raise estimates of the likelihood of a desirable event occurring. It

is important to note that as a higher cognitive function, judgment processes take time and

cognitive resources that perception processes do not require. So, whereas the perception

of an emotionally arousing injustice should trigger a script of deservingness, given time

and cognitive resources, participants may still engage in judgment processes that are

conducive to motivations of self-interest. Among participants using judgment processes,

anger should increase self-interest motivations.

Significance of the Study

In this study, I used an experimental paradigm to test whether our current

knowledge about how decision recipients and decision makers make fairness judgments

was generalizable to emotionally arousing situations, like a forceful police arrest.

Hypotheses

Based on the literature reviewed above, I expect deservingness criteria to explain

more of the variance in justice reasoning than relational criteria in a situation where

emotion is high compared to a situation in which emotion is low. The following

hypotheses test this prediction.

Hypothesis 1: Negative emotional engagement will interact with role and

deservingness information to affect perceptions of procedural fairness, outcome fairness,

procedural satisfaction, and outcome satisfaction. The direction of this interaction will yield the following simple effects:

H1.1. In the low emotion condition, I expect to replicate the findings of previous research. Role will moderate the effects of deservingness information such that information about the harm that a suspect might have caused will affect judgments of fairness and satisfaction more strongly for police officers than it will for suspects.

H1.2 In the high emotion condition, I expect that role will have a diminished effect in the interaction. The deservingness heuristic will be activated for both decision makers and decision recipients. Deservingness information about the suspect's guilt and the harm that he might have caused will affect judgments of fairness and satisfaction equally for both police officers and suspects; all participants will find the forceful arrest procedure and outcome to be more fair and satisfactory when the suspect has committed a potentially harmful crime.

Hypothesis 2: Negative emotional engagement will interact with role and voice to affect perceptions of procedural fairness and outcome fairness. The direction of this interaction will yield the following simple effects:

H2.1. In the low emotion condition, I expect to replicate the findings of previous research. Role will moderate the effects of voice, such that information that the suspect received voice will increase judgments of procedural and outcome fairness more strongly among suspects than it will among police officers.

H2.2. In the high emotion condition, voice and role will have diminished effects in the interaction. The deservingness heuristic will be activated by the emotional context for both decision makers and decision recipients, decreasing the importance of relational

(self-interested) information presented by voice.

Hypothesis 3: Role and voice will interact to affect perceptions of procedural satisfaction and outcome satisfaction. Negative emotional engagement should not influence this interaction. The direction of this interaction will yield the following simple effects:

H3. In both the low and high emotion conditions, I expect to replicate the findings of previous research. Role will moderate the effects of voice. Procedural and outcome satisfaction will be increased by information that the suspect received voice and this effect will stronger among suspects than police officers. These effects will persist in the high emotion condition because *satisfaction* judgments are based in self-interest and therefore not subject to the deservingness heuristic that is activated under high emotion.

Hypothesis 4: Perceptions of deservingness, efficacy of the procedure, threat to the group, responsibility to protect the group, and perceptions of respect will mediate the effects of the independent variables on perceptions of procedural fairness, outcome fairness, procedural satisfaction, and outcome satisfaction.

H4. Because I expect that emotion will trigger the deservingness heuristic, I expect that deservingness motives will have a greater impact on fairness judgments than relational motives. Perceptions of deservingness will explain a greater amount of the variance in procedural fairness and outcome fairness compared to perceptions of respect.

Chapter 2: Method

Participants

Participants were students recruited from first year introductory psychology courses at UOIT in exchange for course credit. Of the 312 participants, 21 (6.73%) were excluded for skipping portions of the study (five participants), having previous experience with the study as a research assistant (one participant), recognizing the video stimuli (two participants), removing or putting down the hand restraints during the study (nine participants), malfunctioning technology (two participants), or violating the study's protocol (two participants). After I removed these 21 participants, 291 participants remained. An additional 33 participants were removed for failing categorical manipulation checks as detailed in the Results section below, resulting in a final N of 258 participants. Of these participants, 93 (36.04%) were male and 165 (63.95%) were female. Participants ranged in age from $16 - 54$ years ($M = 20.24$, $SD = 4.39$). Of the 258 participants, 105 (40.7%) indicated their race as "Caucasian", 43 (16.7%) indicated their race as "South Asian", 32 (12.4%) indicated their race as "Black", 24 (9.3%) indicated their race as "Other", 18 (7.0%) indicated their race as "Arab/West Asian", 15 (5.8%) indicated their race as "South East Asian", 14 (5.4%) indicated their race as "Chinese", 2 (.8%) indicated their race as "Aboriginal", 2 (.8%) indicated their race as "Filipino", 2 (.8%) indicated their race as "Hispanic", and 1 (.4%) indicated their race as "Korean".

Design and Materials

I conducted this study as a 2 (Video: Present, Absent) x 2 (Role: Police Officer, Suspect) x 2 (Voice: High, Low) x 3 (Guilt Harm Info: Guilty/Harmful, Guilty/Harmless, Innocent) between-subjects randomized factorial design.

Video presence. To manipulate participants' emotional engagement in the incident, I manipulated whether participants watched a video of a forceful arrest. Videos showing a vivid wrongdoing (e.g., a man beating up a helpless teenager, Goldberg et al., 1999) are commonly used to elicit an emotional response in experimental studies (also see Gross & Levenson, 1995). I expected that participants who watched the forceful arrest video in addition to reading the vignette would experience greater emotional engagement with the incident than participants who read the vignette but did not watch the video. Participants either watched a video of a violent police arrest before reading about the arrest incident in a vignette (Video present condition) or did not watch the video (Video absent condition).

Video clip. The clip was a cell phone video taken by a bystander during a forceful police arrest of an undergraduate university student at a southern Ontario university and posted on the video streaming site YouTube (dreddly, 2009). The relatively short clip (1:32 minutes long) was a news item at the time (Macleans.ca, 2009; Communication Staff, 2009). The video was taken from a distance of approximately 15 feet from the incident.

Participants in the video present condition watched as three police officers attempted to place hand restraints on the suspect. The suspect appears to be struggling, although, for the duration of the video, he is barely visible behind the police. Throughout the video, the police officers repeatedly yell commands at the suspect including "STOP RESISTING", "YOU'RE UNDER ARREST" and "GIVE US YOUR ARMS". At 0:30 seconds into the clip, two more police officers arrive on the scene and assist with the arrest for a total of five officers arresting the suspect. The actions taken by the police officers throughout the duration of the clip appear to be very violent. The police in the

video can be seen repeatedly striking the suspect in the back, legs, and head using their

fists, knee strikes, and collapsible batons. The video clip ends before the suspect is fully

subdued. According to news articles subsequent to the incident, the suspect was not

injured and the university and local police defended the force used by the police officers

as justified in the circumstances (CBC News, 2009; Toronto Star, 2009). Participants in

the video absent condition did not view this video.

Emotional engagement items. I assessed successful manipulation of emotion using

participants' self-report of emotional arousal. Goldberg et al. (1999) and Gross &

Levenson (1995) previously used the same items to measure emotional responses to

videos. Using a nine-point Likert scale, participants rated their level of emotional arousal

on 17 separate emotions (See Appendix B for questionnaire, organized by construct)

from (1) 'did not feel even the slightest bit' to (9) 'most you have ever felt in your life'.

The emotions were randomly ordered in the questionnaire.

Vignette. The vignette, which all participants read, was a document comprising

approximately 1,000 words, formatted and presented as a newspaper article reporting on

the incident observed in the video. The vignette presented a fictitious account of the

circumstances surrounding the video. Contextual information about the events leading to,

during, and after the arrest was presented from the perspective of a number of

eyewitnesses to the fictional incident. Participants read that the incident happened at a

southern Ontario university campus during midterm examinations. In the vignette,

participants read that several bomb threats had been made against the school in the days

leading up to the arrest. A worker in the cafeteria observed a male student leave a large

black bag under a table in a suspicious manner and then leave the cafeteria. Concerned

that the bag contained a bomb, the worker contacted police, who approached the suspect

from behind and attempted to arrest him. The vignette described how the suspect believed

that he was being attacked and panicked, providing a rationale for why the suspect

resisted the arrest, and then described the events depicted in the video. Participants were

informed that the subject was subdued and brought to the campus security office. The

voice and guilt/harm manipulations were administered in the vignette, as indicated in

Appendix D.

Role. Participants were asked to assume the role of one of the two main actors in

the arrest incident as they completed the study — either the police officer or the suspect.

Participants were instructed to imagine what that actor might be feeling while watching

the video and/or reading the vignette, and answering the questionnaire. Participants were

asked either "to imagine how you would feel if you were the first police officer who

arrived on the scene in a scenario like the one you are about to see" in the Police Officer

condition; or "to imagine how you would feel if you were the suspect being arrested in a

scenario like the one you are about to see" in the Suspect condition. This manipulation of

role is similar to the one successfully used in Study 3 by Heuer et al. (2007) in that it asks

participants to adopt the perspective of either a decision maker or a decision recipient.

To immerse participants in their roles, participants were asked to complete an

immersion exercise, writing one to two lines about their feelings and concerns as either a

police officer or suspect before being presented with any of the study materials. To

further immerse participants in their roles, participants were asked to either wear or hold

authentic metal handcuffs for the duration of the study. Participants in the suspect

condition were asked to wear the handcuffs on their non-dominant arm, whereas

participants in the police officer condition were asked to hold the handcuffs in their non-dominant hand. The use of physical props to prime role concerns is supported in the literature. For example, in their study of "enclothed cognition", Adam and Galinsky (2012) found that sustained attention was increased among participants who were asked to wear a white doctor's jacket. A similar increase was not observed among participants who wore a white painter's jacket – even though the jackets were identical.

To ensure that participants adopted their assigned role, the role manipulation was administered four times through the course of the study: during the immersion exercise, in writing before participants were administered the stimuli, before participants answered the manipulation checks, and before participants began the questionnaire. Correct adoption of the assigned role condition was evaluated using a dichotomous response question (see Appendix C for a list of manipulation check questions).

Voice. Participants received the voice manipulation as part of the vignette. Voice was manipulated so that participants were told that the suspect was either given a chance to provide input into the arrest procedure (High voice condition), or that the suspect was denied an opportunity to provide input (Low voice condition). In the voice present condition, participants were informed that, after the arrest and while he was being walked by police officers to the campus security office, the suspect was given the opportunity to proclaim his innocence, ask questions about the arrest, and that the police listened to the suspect as he offered information about the incident for which he was being arrested. In the voice absent condition, participants were informed that the student was denied the chance to protest his innocence or ask questions and that the police interrupted and shouted at the suspect, saying that they were only willing to listen to him if he provided

details about the bomb. See Appendix D for the voice manipulation.

I assessed correct manipulation of voice using a dichotomous response question and a two item, nine-point Likert scale construct measuring agreement with statements about whether the suspect received voice. (see Appendix C for manipulation check questions).

Guilt and harm information. I manipulated information about the outcome of the incident via the suspect's guilt and the harm that the suspect's actions could have caused. In the vignette, participants were either informed that the suspect was guilty of possessing a smoke bomb that could have harmed a number of people (Guilty harmful condition), that the suspect was guilty of possessing a smoke bomb that could not harm anyone (Guilty harmless condition), or that the suspect was innocent (Innocent condition). Participants received the guilt/harm information manipulation at the end of the vignette. The three levels of this manipulation combine information regarding whether the suspect was guilty of committing a crime (carrying banned materials), and whether the suspect's actions would have physically harmed members of the community. In the guilty/harmful condition, participants were informed that the bag contained a bomb and that although the student intended it to be a harmless prank, the smoke bomb would have produced toxic chemicals, potentially harming a number of people. In the guilty/harmless condition, participants were informed that the bag contained a harmless smoke bomb that would have scared a number of people. In the innocent condition, participants were informed that the student was innocent and the bag did not contain any harmful or illegal items. Guilt/harm information was manipulated in two places in the vignette. Participants first read the outcome of the incident in the newspaper headline. Then, near the end of the vignette, participants read the complete manipulation in the body of the article. See

Appendix D for the guilt/harm manipulation. I evaluated correct manipulation of guilt-harm based on participants' responses to a categorical response question (see Appendix C for manipulation check questions).

Dependent Measures. I evaluated participants' responses to the manipulations in this study based on their self-reported agreement with a series of statements on a nine-point Likert scale ranging from (1) 'Strongly Agree' to (9) 'Strongly Disagree' (see Appendix B for a list of the constructs and their items). I monitored the reliability of all scales using the Cronbach's alpha reliability index.

Dependent variables. The dependent measure constructs used in this study are procedural fairness, outcome fairness, procedural satisfaction, and outcome satisfaction. Constructs measuring procedural fairness and outcome fairness were adapted from Heuer, Penrod, Hafer, and Cohn (2002) to fit the scenario in this study. The authors reported that both procedural fairness ($\alpha = .89$, M = 5.87, SD = 2.57) and outcome fairness ($\alpha = .87$, M = 6.05, SD = 2.23) had good reliability. The procedural satisfaction construct was adapted to fit the study from Sivasubramaniam et al. (2008), who reported the construct had good reliability ($\alpha = .81$, M = 5.61). The outcome satisfaction construct was adapted to fit the study from a questionnaire designed by Sivasubramaniam and Heuer for an unpublished study; previous reliability statistics were not available for this measure.

Procedural fairness assessed participant perceptions of the fairness of the treatment that they have received and was measured using six items (e.g., 'the arrest procedure used by the police officers was fair'; $\alpha = .90$, $M = 3.7$, $SD = 2.0$). Outcome fairness assessed perceptions of the fairness of the outcome of the arrest and was measured using three

items (e.g., 'the outcome of this arrest was a fair one'; α = .90, *M* = 4.8, *SD* = 2.3).

Procedural satisfaction assessed participants' satisfaction with the suspect's treatment and

was measured using 2 items (e.g., 'I was pleased with the procedure the police officers

used to arrest the suspect'; α = .88, *M* = 3.1, *SD* = 2.2). Outcome satisfaction assessed

participants' satisfaction with the outcome of the arrest and was measured using two

items (e.g., 'I am satisfied with the outcome produced by this arrest procedure'; α = .84,

M = 5.0, *SD* = 2.4). See Appendix B for a list of the constructs and their items.

    Mediation measures. To investigate the mediation hypotheses, I measured

constructs assessing participants' perceptions of deservingness, responsibility to protect

the group, efficacy of the procedure, respectful treatment, and threat. The perception of

deservingness construct was adapted from Heuer et al. (1999, p. 1286) to fit the scenario

in the study and to change from first person to third person. They reported that perception

of deservingness had good reliability (α = .89, M = 6.93, SD = 2.15). The responsibility

to protect the group construct was adapted from Sivasubramaniam, et al. (2008) to fit the

study; previous reliability statistics were not available for this measure. Items for the

perceptions of respect, threat to the group and efficacy of the procedure constructs were

adapted from Heuer et al. (2007) to fit the scenario in this study. Heuer et al. (2007, p.

579, 599) reported that these measures had good reliability: respect (α = .88, *M* = 4.4, *SD*

= 2.2) threat to the group (α = .95, *M* = 4.7, *SD* = 2.8), efficacy of the procedure (α = .88,

M = 6.6, *SD* = 2.09).

    The deservingness construct assessed participants' perception that the treatment

that the suspect received was deserved and was measured using three items (e.g., 'The

police officers treated the suspect as he deserved to be treated'; α = .82, *M* = 3.3, *SD* =

2.1). The responsibility to protect the group construct assessed perceptions that the

participant was responsible for the protection of the university community in which the

incident occurred and was measured using three items (e.g., 'I am responsible for

protecting the welfare of my community'; $\alpha = .81$, $M = 6.2$, $SD = 1.9$). The efficacy of the

procedure construct assessed perceptions that the procedure was effective in protecting

the community from harm and was measured using four items (e.g., 'The arrest procedure

will be effective at protecting the welfare of the community'; $\alpha = .92$, $M = 5.0$, $SD = 2.2$).

The respectful treatment construct assessed participants' perception that the suspect was

treated respectfully and was measured using three items: (e.g., 'The police officers were

polite to the suspect'; $\alpha = .67$, $M = 2.6$, $SD = 1.6$). Finally, the threat construct assessed

perceptions that a threat to the community was averted and was measured using three

items (e.g., 'The suspect's behaviour posed a threat to people on campus'; $\alpha = .83$, $M =$

4.6, $SD = 2.3$).

Procedure

Participants were brought into the laboratory and presented with a consent form.

Once participants gave informed consent (see Appendix E for the consent form), they

were brought into individual cubicles and administered the stimuli and measures on PC

computers with 19-inch screens. All materials in this study were administered using

Media Lab, a program designed to facilitate the presentation of digital stimuli in research.

Use of the computer program was briefly explained to participants, and they were asked

to wear headphones to listen to the video. The handcuffs were applied and the

experimenter then left the room and monitored the study from the common area.

When participants began the study via the Media Lab program, they first read brief

instructions asking them to pay close attention to the video (in the video present condition) and news article as they would be asked questions about them later. Participants were then administered the role manipulation and completed the immersion exercise. In the video present condition, participants watched the video and then read the news article. In the video absent condition, participants simply read the news article. After reading the vignette, participants completed a paper based manipulation check questionnaire (containing only categorical manipulation checks) to assess their correct reception of the manipulations. Participants with incorrect responses were re-directed to the materials and asked to reconsider their answers. The data from participants who refused to change their incorrect responses or who answered more than one manipulation check question incorrectly were excluded from analysis. Participants then completed a questionnaire containing the emotional engagement items and the mediator and dependent measures. After the participants completed the questionnaire, they were debriefed regarding the nature and purpose of the study (see Appendix F for the debriefing sheet).

Chapter 3: Results

Manipulation Checks

Categorical manipulation checks. A manipulation check was administered to ensure that all participants correctly registered the manipulations. The experimenter evaluated participants' answers to the categorical manipulation check questions before they were allowed to continue with the dependent measures, so that participants who incorrectly answered one of the manipulation check questions could be referred to the materials and asked to reconsider their answers. Participants were considered to have failed the manipulation checks if they offered resistance after being asked to reevaluate their answer. Of the 18 participants who resisted reevaluation, 10 participants resisted the role manipulation, 6 participants resisted the voice manipulation, and 2 participants resisted the guilt/harm manipulation. Additionally, 15 participants were considered to have automatically failed the manipulation checks when they initially answered two or more questions incorrectly. Of the 291 participants, 11.34% (33) participants were identified as failing the categorical manipulation checks and were excluded from the study. After I removed all participants who failed the manipulation checks, the total sample size was ($n = 258$).

"Rehabilitated" participants ($n = 52$) were those who answered only one categorical manipulation check question incorrectly and changed their answers after being asked once to reread the relevant section in the materials and reevaluate their answers. Of these rehabilitated participants, 26 participants had initially answered the voice manipulation check question incorrectly, 13 participants had initially answered the

role manipulation check question incorrectly, and 13 participants had initially answered

the guilt/harm manipulation check question incorrectly.

To ensure that the group of rehabilitated participants did not differ substantially

from non-rehabilitated participants, I conducted eight analysis of variance (ANOVA)

tests on the main dependent variables. Four tests excluded the rehabilitated participants,

and four tests included the rehabilitated participants.

On the dependent variable of procedural satisfaction differences were observed

for the two-way interaction between deservingness information and role on procedural

satisfaction. The interaction was non-significant when rehabilitated participants were

excluded, F (2, 183) = 1.405, p = .248, $\eta\rho^2$ = .015. But, the interaction became significant

when rehabilitated participants were added to the analysis, F (2, 234) = 3.262, p = .040,

$\eta\rho^2$ = .027.

On outcome fairness, differences were observed for two interactions. The two-

way interaction between role and video presence on outcome fairness was non-significant

when rehabilitated participants were excluded, F (1, 183) = 3.512, p = .063, $\eta\rho^2$ = .019,

but became significant when rehabilitated participants were included, F (1, 234) = 4.019,

p = .046, $\eta\rho^2$ = .017. A three-way interaction between deservingness information, voice,

and video presence was significant when rehabilitated participants were excluded, F (2,

183) = 3.338, p = .038, $\eta\rho^2$ = .035, but became non-significant when rehabilitated

participants were included, F (2, 234) = 2.398, p = .093, $\eta\rho^2$ = .020. It is possible that

these observed differences are entirely due to an increase in power from the inclusion of

the rehabilitated participants. This argument is supported by the fact that the differences

are observed on higher order interactions. Considering this possibility, and because I

observed no consistent differences in patterns of responding across any particular IV's

between the rehabilitated and non-rehabilitated participants, I included the rehabilitated

participants in the analyses.

Continuous manipulation checks. To confirm that the manipulations worked as

intended among remaining participants, I conducted four, three-way analyses of variance

(ANOVA) tests on scales measuring perceptions of responsibility to protect the group,

voice, threat to the group, and negative emotional engagement.

Responsibility to protect the group. I conducted a 2 (Role: officer, suspect) x 2

(Voice: high, low) x 3 (Guilt/harm: guilty/harmful, guilty/harmless, innocent) x 2 (Video

Presence: present, absent) between-subjects ANOVA on perceptions of responsibility to

protect the group. The ANOVA revealed the intended effect of the role manipulation, F

$(1, 234) = 76.32$, $p < .001$, $\eta\rho^2 = .246$. As expected, participants who were asked to

imagine themselves as police officers ($M = 7.16$, $SD = 1.53$) felt a greater responsibility

to protect the group than participants who were asked to imagine themselves as suspects

($M = 5.36$, $SD = 1.72$).

Perceptions that the suspect received voice. I conducted a 2 (Role: officer,

suspect) x 2 (Voice: high, low) x 3 (Guilt/harm: guilty/harmful, guilty/harmless,

innocent) x 2 (Video Presence: present, absent) between-subjects ANOVA on

perceptions that the suspect received voice. The ANOVA revealed the intended effect of

the voice manipulation, $F (1, 234) = 299.40$, $p < .001$, $\eta\rho^2 = .561$; participants who read

that the suspect received voice ($M = 5.18$, $SD = 2.28$) reported greater perceptions of

voice than participants who read that the suspect did not receive voice ($M = 1.49$, $SD =$

.89). There was also a significant but small main effect of video presence, $F (1, 234) =$

4.59, $p = .003$, $\eta\rho^2 = .019$; participants in the video absent condition ($M = 3.57$, $SD = 2.65$) reported greater perceptions of voice than participants in the video present condition ($M = 3.11$, $SD = 2.35$). The ANOVA also revealed a significant but small main effect of guilt/harm information, $F(2, 234) = 3.11$, $p = .046$, $\eta\rho^2 = .026$; but post-hoc comparisons using the Tukey HSD test did not indicate any significant differences between groups.

  Threat to the group. I conducted a 2 (Role: officer, suspect) x 2 (Voice: high, low) x 3 (Guilt/Harm: guilty/harmful, guilty/harmless, innocent) x 2 (Video Presence: present, absent) between-subjects ANOVA on perceptions of threat to the group. The ANOVA revealed the intended effect of the guilt/harm manipulation, $F(2, 234) = 100.53$, $p < .001$, $\eta\rho^2 = .462$; post-hoc comparisons using the Tukey HSD test indicated that the mean score for the guilty/harmful group ($M = 6.67$, $SD = 1.55$) was significantly different from the guilty/harmless group ($M = 4.35$, $SD = 2.05$) and that the innocent group ($M = 3.00$, $SD = 1.72$) was significantly different from the guilty/harmful and guilty/harmless groups. The ANOVA also revealed main effects of video presence and role. There was a significant but small difference in perceptions of threat between the video presence conditions $F(1, 234) = 6.40$, $p = .012$, $\eta\rho^2 = .027$; participants in the video absent condition ($M = 4.94$, $SD = 2.49$) reported greater perceptions of threat to the group than participants in the video present condition ($M = 4.40$, $SD = 2.20$). There was also a significant but small difference in threat between the role conditions, $F(1, 234) = 9.57$, $p = .002$, $\eta\rho^2 = .039$; participants who were asked to imagine themselves as police officers ($M = 5.00$, $SD = 2.35$) reported greater perceptions of threat compared to participants who were asked to imagine themselves as suspects ($M = 4.34$, $SD = 2.30$).

Finally, the ANOVA revealed two interaction effects, video x voice, $F(1, 234) = 7.17$, p = .008, $\eta\rho^2$ = .030; and video x guilt/harm x voice, $F(2, 234) = 5.33$, p .005, $\eta\rho^2$ = .044.

Simple effects analysis revealed that participants who did not watch the video perceived a significantly greater threat to the group when voice was high ($M = 5.39$, $SD =$ 2.46) than when voice was low ($M = 4.49$, $SD = 2.47$; $F(1, 234) = 9.25$, $p = .003$, $\eta\rho^2$ = .038). But, there was no significant difference in perceptions of threat among participants who watched the video regardless of whether voice was high ($M = 4.28$, $SD = 2.27$) or low ($M = 4.53$, $SD = 2.14$; $F(1, 234) = .629$, $p = .428$, $\eta\rho^2 = .003$).

Simple interaction effects analysis also revealed that among participants who did not watch the video and read that the suspect was innocent, a significantly greater threat to the group was observed when voice was high ($M = 3.65$, $SD = 1.96$) than when voice was low ($M = 2.22$, $SD = 1.22$; $F(1, 122) = 7.59$, $p = .007$, $\eta\rho^2 = .059$). No other significant interaction effects were observed among participants who did not watch the video.

Among participants who watched the video and read that the suspect was innocent, they perceived a significantly greater threat to the group when voice was low ($M = 3.89$, $SD = 1.82$) than when voice was high ($M = 2.23$, $SD = 1.14$; $F(1, 112) =$ 11.04, $p = .001$, $\eta\rho^2 = .090$). No other significant simple interaction effects were observed among participants who watched the video.

Negative emotional engagement. The 17 emotional engagement items were subjected to principal components analysis. Before performing the factor analysis, the suitability of the data for running a factor analysis was assessed. Inspection of the correlation matrix revealed the presence on a number of coefficients of .3 and above. The

KMO value was .868 exceeding the recommended value of .6 (Kaiser, 1970, 1974;

Pallant, 2007, p. 197), and Bartlett's Test of Sphericity (Bartlett, 1954) reached statistical

significance, supporting the factorability of the correlation matrix.

Principal components analysis revealed the presence of four components with

eigenvalues exceeding one, explaining 32.9%, 15.0%, 6.5%, and 6.0% of the variance.

An inspection of the scree plot revealed a clear break after the second component. Using

Cattell's (1966; Pallant, 2007, p. 197) scree test, it was decided to retain two components

for further investigation. The two-component solution explained a total of 47.93% of the

variance, with Component 1 contributing 32.93% and Component 2 contributing 14.99%.

To aid in the interpretation of these two components, Varimax rotation was performed.

The rotated solution revealed the presence of a complex structure with arousal, interest,

and contempt loading on more than one component with values < .6. To achieve a

solution with a simple structure (Thurstone, 1947), I dropped arousal, interest, and

contempt and ran a second analysis with two components. This two-component solution

explained a total of 53.09% of the variance, with Component 1 contributing 38.04% and

Component 2 contributing 15.06%.

With arousal, interest, and contempt removed from the analysis, both components,

and the solution as a whole, explain more of the variance, supporting the decision to

remove those items from the analysis. To aid in the interpretation of these two

components, Varimax rotation was performed. With the removal of arousal, interest, and

contempt, the rotated solution revealed the presence of a simple structure, (Thurstone,

1947) with each item loading on only one component and all items loading strongly on

their respective components. The interpretation of the two components was consistent

with expectations, negative affect items loaded strongly on Component One and positive

affect items loaded strongly on Component Two (for factor loadings see Table 1).

Because the theoretical focus of this study is on the effects of negative emotional

engagement on justice judgments, only Component One will be examined further.

To ensure that the 10 items that loaded on Component One have high internal

reliability, I calculated the Chronbach's Alpha for the variables anger, confusion,

embarrassment, fear, hopelessness, pain, sadness, disgust, surprise, and tension. The

Cronbach's Alpha value for the negative emotional engagement scale is high at .898

indicating high internal reliability.

I then ran a 2 (Role: officer, suspect) x 2 (Voice: high, low) x 3 (Guilt/harm:

guilty/harmful, guilty/harmless, innocent) x 2 (Video Presence: present, absent) between-

subjects ANOVA on a composite scale of participants' responses to the negative

emotional engagement items. The ANOVA revealed the intended main effect of the

video presence manipulation, $F(1, 234) = 10.36$, $p = .001$, $\eta\rho^2 = .042$. Participants who

watched the video ($M = 5.60$, $SD = 1.72$) reported stronger negative emotional

engagement than participants who did not watch the video ($M = 4.96$, $SD = 1.82$). The

ANOVA also revealed a significant main effect of role, $F(1, 234) = 61.44$, $p < .001$, $\eta\rho^2$

$= .205$; participants who were asked to imagine themselves as suspects ($M = 6.06$, $SD =$

1.70) reported stronger negative emotions than participants who were asked to imagine

themselves as police officers ($M = 4.50$, $SD = 1.52$). These analyses indicated a problem

with the manipulation of negative emotional engagement via video presence: the effect

size for that manipulation was very small – smaller than the effect of role on negative

emotional engagement. This small effect size indicates that video presence should not be

used as a manipulation of negative emotional engagement in this study. As a result, I

decided to discard the video presence manipulation from further analyses and instead

directly examine the effects of the naturally occurring variance in negative emotional

engagement on the dependent variables.

Assumption Tests

Following Tabachnick and Fidell (2007), I conducted a series of tests to ensure

that the assumptions for regression were met. First, I inspected the univariate statistics for

accuracy of input, out-of range values, plausible means and standard deviations,

skewness, and univariate outliers; no substantial violations were observed. See Table 2

for descriptive statistics. To test for multivariate assumptions, I conducted a series of

preliminary analysis using four linear regression equations on the criterion variables. I

then checked pairwise plots for nonlinearity and heteroscedasticity; no substantial

violations were observed. To identify and deal with multivariate outliers, I calculated

Mahalanobis values for the four criterion variables. Following Tabachnick and Fidell

(2007), I calculated the critical chi-square value of 29.58 for 10 degrees of freedom and

an alpha value of .001; no cases exceeded this value.

Justice Reasoning Path Model

A series of nine hierarchical regression models (see Tables 3 through 5) were

used to create a path model (Figure 1; Kenny, 2012; Tabachnick & Fidell, 2007). Prior to

running the regression equations, I dummy coded the categorical independent variables.

Because negative emotional engagement is a continuous variable, I zero-centered all

continuous variables in the model to aid in the interpretation of simple effects and to

control for multicollinearity (Kenny, 2012; Tabachnick & Fidell, 2007). I then calculated

all three-way and simple interaction terms between the independent variables: role, voice, guilt/harm, and negative emotional engagement.

The model (Figure 1) consists of four columns of analysis. Moving from right to left, all direct paths were calculated at each step of the model, beginning with the dependent variables: procedural satisfaction and outcome satisfaction in column four, through each subsequent column. Dependent variables: procedural fairness and outcome fairness were contained in the third column, the second column contained the mediation variables: deservingness, respect, efficacy, responsibility to protect the group, and threat to the group, and the first column contained the independent variables: role, voice, guilt/harm, and negative emotional engagement and their two-way and three-way interactions. The final model (Figure 1) displays paths that were significant at a 95% confidence interval. Non-significant paths are not shown in the model, unless necessary to interpret moderation effects, in which case they are plotted with dashed lines.

I inspected tolerance and VIF values in all nine models for indications of multicollinearity. When tolerance and VIF values indicated multicollinearity, following Tabachnick and Fidell (2007), I examined the relevant correlation table for covariances over ($r = .70$). Across all models, there was a strong, positive correlation between negative emotional engagement and the two-way interaction, negative emotional engagement x role, $r = .708, p < .001$. I also found a strong, positive correlation across all models between negative emotional engagement and the two-way interaction, negative emotional engagement x voice, $r = .742, p < .001$. According to Kenny (2012), because these correlations occur between an interaction and its simple effect, multicollinearity is to be expected and is not an issue for the analysis.

Hypothesis 1: Negative Emotional Engagement x Role x Guilt / Harm Information

Hypothesis 1 predicts that among participants who are less emotionally engaged, role will moderate the effects of deservingness (guilt/harm) information on the dependent variables procedural fairness, outcome fairness, procedural satisfaction, and outcome satisfaction. When negative emotional engagement is low, guilt/harm information should affect justice judgments more strongly for police officers than for suspects. However, among participants who are more engaged emotionally, the moderating effect of role will be diminished although guilt/harm information will continue to affect justice judgments. Of the eight tests of this hypothesis contained in the model, two paths were significant. Negative emotional engagement interacted with role and guilt/harm information to affect *procedural fairness* and *outcome fairness*. While these contrasts have significant effects on justice judgments, neither of these effects supports Hypothesis 1 as the effects occurred opposite to the predicted direction.

On procedural fairness. The interaction between negative emotional engagement, role, and guilty/harmless information (*NegEmo x Role x DD1* in Figure 1) significantly affected perceptions of procedural fairness. When negative emotional engagement was high, guilty/harmless information was exerting a greater effect on police officers' procedural fairness judgments than on suspects' procedural fairness judgments. Contrary to Hypothesis 1.2; the simple effect of the role moderation on procedural fairness judgments was *stronger* among participants who experienced stronger negative emotions.

On outcome fairness. The interaction between negative emotional engagement, role, and guilty/harmless information (*NegEmo x Role x DD1* in Figure 1) significantly affected perceptions of outcome fairness. When negative emotional engagement was

high, guilty/harmless information had a greater effect on police officers' outcome fairness

judgments than on suspects' outcome fairness judgments. As above, the predicted role

moderation effect on outcome fairness judgments was *stronger* among participants who

experienced stronger negative emotions and *weaker* among participants who experienced

weaker negative emotions— contrary to the direction of simple effects predicted by

Hypothesis 1.2.

Hypothesis 2: Negative Emotional Engagement x Role x Voice on Fairness

Judgments

Hypothesis 2 predicts that among participants who are less emotionally engaged,

role will moderate the effects of voice on the dependent variables procedural fairness and

outcome fairness. When negative emotional engagement is low, voice should affect

justice judgments more strongly for suspects than for police officers. However, the

effects of voice and role will be diminished among participants who are more engaged

emotionally. Of the two tests of this hypothesis contained in the model, one path was

significant. Negative emotional engagement interacted with role and voice to affect

perceptions of *procedural fairness,* completely mediated by perceptions of respect.

Because Hypothesis 4 predicts respect as a mediator, in this section, I will only be

discussing the effect of the three-way interaction on respect. This section considers the

effect of the interaction on respect instead of on procedural fairness because the

mediation is inconsistent[2], resulting in a non-significant total effect between the

interaction and procedural fairness when respect is not considered in the model (Kenny,

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[2] Inconsistent mediation occurs when the direct effect (path from X to Y when M is present) and
the indirect effect (path from X to $M,$ multiplied by the path from M to Y) are the opposite sign
and cancel each other out, resulting in a non-significant total effect (path from X to Y when M is
not in the model) (Kenny, 2012; MacKinnon, Fairchild & Fritz, 2007).

2012; MacKinnon, Fairchild & Fritz, 2007). Note that respect has a positive effect on procedural fairness.

   On respect. Hypothesis 2.1 is supported by the significant interaction between negative emotional engagement, role, and voice (*NegEmo x Voice x Role* in Figure 1) on procedural fairness, mediated by perceptions of respect. When negative emotional engagement is low, information that the suspect received voice had a greater effect on suspects' perceptions of respect than on police officers' perceptions of respect — as predicted. Further, as predicted, the negative direction of the three-way interaction indicates that this role moderation effect on perceptions of respect was *weaker* among participants who experienced stronger negative emotions and *stronger* among participants who experienced weaker negative emotions.

Hypothesis 3: Role x Voice on Satisfaction Judgments

   Hypothesis 3 predicts that role and voice will interact to affect procedural and outcome satisfaction judgments regardless of participants' level of emotional engagement. Voice should affect satisfaction judgments more strongly for suspects than for police officers. Of the two tests of this hypothesis, no paths were significant; Hypothesis 3 was not supported.

   Instead, the model reveals the opposite result. Negative emotional engagement interacts with voice and role (*NegEmo x Voice x Role* in Figure 1) to significantly affect procedural satisfaction, mediated by perceptions of respect. Similar to the path to procedural fairness, the mediation of the path to procedural satisfaction by respect is inconsistent. Because of this inconsistent mediation, the analysis is the same as the one conducted in Hypothesis 2. I explore the respect mediation for procedural satisfaction

below in Hypothesis 4.

Hypothesis 4: Perceptions of Deservingness and Respect

Hypothesis 4 predicts that perceptions of deservingness, efficacy of the procedure, threat to the group, responsibility to protect the group, and perceptions of respect will mediate the effects of the independent variables on justice judgments. However, only perceptions of respect and threat mediated participants' justice judgments. Hypothesis 4 further predicts that perceptions of deservingness will explain a greater amount of the variance in procedural and outcome fairness than perceptions of respect.

Respect as a mediator of justice judgments. Respect mediated the effects of two higher-order interactions on perceptions of procedural fairness and satisfaction. These findings show that emotional engagement affects how justice judgments are mediated by perceptions of respect.

Inconsistent mediation of negative emotional engagement x role x voice on procedural fairness and procedural satisfaction. Following Baron and Kenny's (1986) four steps to establishing mediation, I conducted a mediation analyses on the paths from the three-way interaction (*NegEmo x Voice x Role* in Figure 1) through respect to the dependent variables procedural fairness and procedural satisfaction. Respect completely mediated the effects of the three-way interaction on procedural fairness and on procedural satisfaction. However, when respect was not considered in the model, the paths from the three-way interaction to procedural fairness ($\beta = -.142$, $p = .271$), and to procedural satisfaction ($\beta = -.220$, $p = .087$) were negative and non-significant indicating inconsistent mediation (Kenny, 2012; MacKinnon, et al., 2007). Note that the effects of the interaction on procedural fairness and procedural satisfaction were in the same

direction as the effect on respect – voice increased perceptions of respect more strongly for suspects that experienced weaker negative emotional engagement.

Although the interaction had a negative effect on respect and on procedural fairness, respect had a positive effect on procedural fairness. When emotion is high, voice and role had a reduced effect on respect, but increased perceptions of respect continued to increase perceptions of procedural fairness.

Similarly, the three-way interaction had a negative effect on respect and on procedural satisfaction while respect had a positive effect on procedural satisfaction. When emotion was high, voice and role had a reduced effect on respect, but increased perceptions of respect continued to increase perceptions of procedural satisfaction.

Inconsistent mediation of negative emotional engagement x voice x guilty / harmful information on procedural fairness and satisfaction. The interaction between negative emotional engagement, voice, and guilty/harmful information (*NegEmo x Voice x DD2ful* in Figure 1) significantly affected perceptions of procedural fairness and procedural satisfaction, completely mediated by perceptions of respect.

I investigated these mediations using Baron and Kenny's (1986) four steps. When respectful treatment was removed from the model, information that the suspect was guilty of possessing a harmful smoke bomb *decreased* the effects of voice on perceptions of procedural fairness and procedural satisfaction, and these effects were *stronger* among participants that experienced stronger negative emotions. But, the effect of the three-way interaction on respect occurred in the opposite direction to its effects on procedural fairness and procedural satisfaction, indicating inconsistent mediation. When respect was included as a mediator, information that the suspect was guilty of possessing a harmful

smoke bomb *increased* the effect of voice on perceptions of respect, and these effects were *stronger* among participants that experienced stronger negative emotions.

Respect had a positive effect on procedural fairness and procedural satisfaction. When emotions were high, voice and guilty/harmful information had an increased effect on respect, and as perceptions of respect increased, so did perceptions of procedural fairness and procedural satisfaction. This pattern of results suggests that participants perceived the giving of voice to an undeserving suspect as respectful (and this was particularly true when participants' negative emotions were high). Respectful treatment was itself seen as fair – so, the granting of voice to an undeserving suspect was seen as fair and satisfactory, to the extent that it was seen to be respectful.. It is interesting to note that if we do not take respect into account, negative emotional engagement strengthens participants' identification of undeserved treatment as procedurally unfair and unsatisfactory. However, if we do take respect into account, granting voice to an undeserving suspect is seen as fair and satisfactory to the extent that it is seen to be respectful.

Threat as a mediator of guilt/harm information on fairness judgments.
Information that the suspect was guilty of possessing a smoke bomb (*DD1 Harmless &DD2 Harmful* in Figure 1) positively affected perceptions of procedural and outcome fairness, mediated by perceptions of threat to the group. A mediation analysis of these paths revealed that threat completely mediated the relationship between guilt/harm information and procedural fairness and between guilt/harm information and outcome fairness (Baron and Kenny, 1986). Information that the suspect was guilty of possessing either a harmless or harmful smoke bomb increased perceptions of threat to the group.

Increased perceptions of threat to the group increased perceptions that the forceful police arrest procedure and the outcome of the arrest were fair.

Perceptions of deservingness vs. perceptions of respect. Although deservingness did not act as a mediator in the model, it still significantly contributed to explaining the variance in procedural fairness, outcome fairness, and procedural satisfaction. Similarly, respect significantly contributed to explaining the variance in procedural fairness. Using the reported *beta* weights, it is possible to compare the relative contributions of each variable towards explaining the variance in procedural fairness. As predicted in Hypothesis 4.1, perceived deservingness ($\beta = .523$, $p < .001$) explained more of the variance in procedural fairness than perceived respect ($\beta = .229$, $p < .001$).

Chapter 4: Discussion

This study examined the effects of emotional engagement on the antecedents of justice reasoning proposed by four prominent theories and models in the procedural justice literature (Heuer, et al., 1999; Heuer, et al., 2007; Lerner, 1980; Lind & Tyler, 1988). Among participants who responded to the stimuli with stronger negative emotions, deservingness criteria explained more of the variance in justice reasoning than relational criteria. Guilt / Harm information exerted a greater effect on the procedural and outcome fairness judgments of decision makers than decision recipients, and this interaction was stronger among participants who had a greater negative emotional response to the stimulus. Voice exerted a stronger effect on the procedural fairness judgments of decision recipients compared to decision makers, but this interaction effect was weakened among participants who experienced stronger negative emotions. Finally, perceptions of deservingness explained a greater amount of the variance in procedural fairness judgments than perceptions of respect.

Hypothesis 1: Negative Emotional Engagement x Role x Guilt / Harm.

Results support the hypothesis that emotional engagement activates deservingness concerns. When participants were emotionally engaged, information that the suspect was guilty of possessing a harmless smoke bomb affected their perceptions of procedural fairness and outcome fairness. For both effects, the interaction between role and guilt / harm information only became significant when moderated by negative emotional engagement. These findings support Lerner's (2003) critique that modern justice researchers have failed to find a unique deservingness motivation for justice judgments because their methods have not been emotionally engaging.

Further supporting the hypothesis that emotional engagement activates deservingness concerns, the model revealed a path between a three-way interaction (*NegEmo x Voice x DD2* in Figure 1) and outcome fairness. This effect replicates Heuer et al.'s (1999) finding that deservingness moderates the effect of relational information on fairness judgments, and extends that finding to this emotional context. The effect of voice on outcome fairness was weaker when the suspect was guilty of possessing a harmful smoke bomb, and this interaction was strengthened among participants who were more engaged emotionally. This finding provides further support for the hypothesis that emotional engagement activates deservingness concerns.

The secondary hypothesis, that activation of the deservingness heuristic among emotionally engaged participants would cause role to have a diminished effect in the interaction, was not supported. Contrary to expectations, role moderated the effects of guilt / harm information among participants who were emotionally engaged. This finding suggests that, in this study, the psychological processes enacted by the deservingness script did not supersede role-specific concerns.

It is possible that, contrary to Lerner's (2003) reasoning, deservingness does not act as a heuristic that, when activated, supersedes other concerns, such as self-interest or concerns specific to one's role. Before such a conclusion could be reached, however, other alternative explanations must be ruled out. First, having established that emotional engagement activates the deservingness heuristic, it is possible that the psychological impact (or strength) of the deservingness heuristic varies according to the intensity of emotional engagement. This possibility is left open by the current data; on average, participants in the study were not highly engaged emotionally ($M = 5.29$, $SD = 1.80$; on a

nine-point Likert Scale). Lerner (2003) suggests that when participants have a *strong* emotional engagement with the stimuli, they lack the cognitive resources to consider other concerns. Considering that, on average, participants in the current study did not respond to the stimuli with strong emotions, it is possible that they retained the cognitive resources to consider other, role-specific concerns. When the present study is compared to the extremely emotionally arousing methods employed by Lerner and his colleagues — where participants watched a volunteer receive repeated electrical shocks — it is understandable that these stimuli did not produce the same level of deservingness response (e.g., Lerner, 1980; Lerner & Matthews, 1967; Lerner & Simmons, 1966).

Second, it is important to consider Heuer, et al.'s (2007) suggestion that decision makers may be particularly motivated in their justice judgments by deservingness concerns. It is possible that role and deservingness interacted among participants experiencing greater emotional engagement because the deservingness concerns activated by emotion produce additive effects in conjunction with deservingness concerns typically held by decision makers. Further, it is possible that police officers — charged with enforcing the state's justice — are particularly concerned with ensuring that people receive their just deserts. The distribution of the simple effects for the three-way interaction predicted by this hypothesis (*NegEmo x Role x DD1* in Figure 1) support this explanation. Among participants who were more emotionally engaged, the effects of information that the suspect was guilty of possessing a harmless smoke bomb on procedural and outcome fairness were stronger among police officers than suspects.

Additionally, the interaction between role, voice, and guilty / harmful information on procedural fairness (*Role x Voice x DD2* in Figure 1) offers further support for Heuer

et al.'s (1999) assertion that decision makers' justice judgments may be particularly

motivated by deservingness concerns. This path replicates Heuer et al.'s (1999) finding

that deservingness moderates the effect of respectful treatment on justice judgments, and

extends this effect to the justice judgments of decision makers. In this study, information

that the suspect was guilty of possessing a harmful smoke bomb increased perceptions

that the forceful arrest procedure was fair more strongly among participants who were

asked to imagine themselves as police officers than among participants asked to imagine

themselves as suspects. This finding also supports speculation by Heuer et al. (2007) that

the justice judgments of decision makers are more strongly driven by deservingness

concerns.

It is important to note that the explanations posited by Lerner (2003) and Heuer et

al. (1999, 2007) are not incompatible. It is also possible that this unexpected interaction

between deservingness and role represents these two processes working together to affect

justice reasoning. Emotional engagement with stimuli may interact with role-specific

concerns in different ways depending on the strength of the emotional response. Further

research is needed. This research should attempt to elicit a greater range of emotional

engagement from participants by using particularly vivid and compelling injustices that

have deeper emotional consequences for participants. Using decision makers with roles

outside the legal system will help to identify whether role specific concerns with

deservingness are limited to police officers or can be generalized to decision makers

more broadly.

Hypothesis 2: Negative Emotional Engagement x Role x Voice on Fairness

Judgments

Results also support the hypothesis that emotional engagement suppresses

relational concerns (i.e., voice and perceptions of respect). As predicted in Hypothesis

2.1, the direction of the simple effects replicates the results of Heuer et al. (2007), and

Lind and Tyler (1988) among participants with weaker emotional responses. Information

that the suspect was given voice increased perceptions of respect among participants

asked to imagine themselves as suspects. As predicted in Hypothesis 2.2, the effect of

this interaction between role and voice was diminished among participants who

experienced greater emotional engagement. These findings support Lerner's (2003)

prediction that self-interested, relational concerns are diminished in emotionally engaging

contexts as participants are focused on deservingness concerns that are activated by their

emotional response.

Following Lerner's (2003) critique, the finding that relational concerns are

diminished among emotionally engaged participants also challenges the universal

applicability of Lind and Tyler's (1988) group value model. In this experimental context,

emotional engagement moderated the effect of relational concerns on participant's justice

judgments. The group value model only held explanatory power in the path model when

suspects were less engaged emotionally.

Hypothesis 3: Role x Voice on Satisfaction Judgments

Results did not support Hypothesis 3. The hypothesis predicted that voice would

interact with role (without influence by negative emotional engagement) to affect

satisfaction judgments, according to Heuer et al.'s (2007) decision maker, decision

recipient disparity. I based this prediction on the differences between fairness and satisfaction (Skitka et al., 2003) and Lerner's (1977, 2003) justice motivation theory. Lerner argued that deservingness concerns are triggered heuristically by highly compelling situations that are emotionally engaging. The deservingness heuristic should influence fairness judgments but not satisfaction judgments. So, I expected that effects on satisfaction would occur regardless of participants' level of emotional engagement. The results did not support this prediction.

To identify why the results failed to support this hypothesis, it is helpful to consider that the hypothesis was not supported because role and voice interacted with negative emotional engagement to affect procedural satisfaction, mediated by perceptions of respect. Voice and role only influenced procedural satisfaction when negative emotional engagement was low. This finding fits with another aspect of Lerner's (2003) argument involving how emotional engagement influences cognitive resources. Pointing to his earlier findings of counternormative responses (i.e., victim derogation) to vivid injustices (see Lerner & Matthews, 1967; Lerner & Simmons, 1966), Lerner argued that people express these counternormative responses because they lack the cognitive resources to consider more socially appropriate responses.

A lack of cognitive resources can explain why role and voice only interacted to affect procedural satisfaction when emotional engagement was low. When emotional engagement is low, participants have the cognitive resources to engage in role-specific relational concerns and to make attributions about respect and satisfaction based on those concerns. But, when emotional engagement is high, participants' cognitive resources are consumed by their efforts to re-establish their sense of justice and they are unable to

consider relational concerns.

Hypothesis 4: Perceptions of Deservingness and Respect

Hypothesis 4 predicted that perceptions of deservingness, efficacy of the procedure, threat to the group, responsibility to protect the group, and perceptions of respect would mediate the paths between the independent variables and the dependent variables. The hypothesis was partially supported. Perceptions of respect and threat to the group acted as mediators in the path model. Additionally, as predicted, perceptions of deservingness explained a greater amount of the variance in procedural fairness judgments than perceptions of respect.

Respect mediates the effect of negative emotional engagement x role x voice on procedural fairness and satisfaction. The mediation of these paths by respect is consistent with the group value model's assertion that voice increases procedural fairness and satisfaction for relational reasons (Lind et al., 1990; Lind & Tyler, 1988; Tyler, 1989). These effects confirm that in certain conditions, participants' justice reasoning followed the group value model. But, the inconsistent nature of the respect mediation, in conjunction with the effects discussed in Hypothesis 2, also suggests that the generalizability of the group value model is limited. Among decision makers and participants that were emotionally engaged, voice has a diminished effect on perceptions of respect, procedural fairness and satisfaction. This respect mediation adds further support to Lerner's (2003) claim that negative emotional engagement diminishes the importance of relational criteria for justice reasoners.

Respect mediates the effect of negative emotional engagement x voice x guilty / harmless information on procedural fairness and satisfaction. This finding suggests

that deservingness concerns, triggered with emotional engaging stimuli, can influence the

interpretation of relational stimuli. On its face, this mediation effect appears to occur

counter to Lerner's (1977; 1980; 2003) theory of justice motivation and Heuer et al.'s

(1999) deservingness moderation effect. According to Lerner and Heuer et al., offering

respectful treatment when the suspect is least deserving should be viewed as unfair – the

suspect received respectful treatment when it was not deserved. The inconsistent

mediation by respect suggests that participants in these conditions construed the police's

granting of voice when it was not deserved as being especially respectful. This construal

of respect suppressed participants' negative procedural fairness and satisfaction

judgments that were based in a violation of the justice motive (the guilty suspect received

voice that was not deserved). Instead, participants that construed this undeserved

treatment as respectful increased their perceptions of procedural fairness and satisfaction.

The judgment that undeserved respect is fair and satisfactory may represent a

limitation to the generalizability of Lerner's (1977; 1980; 2003) justice motivation theory

and the deservingness heuristic. That this effect occurs when negative emotion is high

presents a problem for the alternative explanation that the construal of respect is a

normative response based in impression management. Lerner (2003) warns that

participants with sufficient cognitive resources may engage in impression management

and respond to the injustice normatively when they otherwise would have responded

counternormatively (e.g., victim derogation). However, further research is needed to

determine whether the observed effect is the result of a limitation to the deservingness

heuristic or a function of impression management. This research might present people at

various levels of emotional arousal with information about persons with varying levels of

deservingness who receive positive and negative treatment. If the observed effect is the result of impression management, then participants should only judge respectful treatment to be fair and satisfactory in the low emotion conditions.

Threat mediates the effect of guilt / harm information on procedural and outcome fairness. This mediation by perceptions of threat to the group supports Heuer et al. (2007) by finding that a threat to the group can motivate procedural and distributive fairness judgments. The mediation speaks to how participants interpreted the guilt / harm manipulation. The manipulation of guilt and harm in this study closely follows Heuer et al.'s manipulation of outcome benefits in their first two studies. In both cases, a suspect is guilty of possessing contraband and the severity of that contraband is manipulated. The key difference in this study is the inclusion of an innocent condition comparison group. Heuer et al. assumed that their manipulations of outcome were perceived as threats to the group. But, in addition to conveying information about the threat to the group, the manipulation also communicates information about the suspect's deservingness. The mediation by threat and not deservingness in this study raises the question, why was deservingness not a significant mediator of these paths? Another similarity between Heuer et al.'s studies and the present study may provide clarity. Participants in these studies were asked to determine the fairness of procedures that involved the use of coercive force. It is possible that when determining the fairness of procedures that are particularly coercive and possibly abusive, participants consider whether the state's response is proportionate to the threat that the state's actions are attempting to ameliorate. This explanation does not exclude Lerner's (1977; 1980; 2003) justice motive and the deservingness heuristic. We still do not know what psychological mechanism causes the

perception of a threat to affect perceptions of fairness. It is possible that this mechanism

is the deservingness heuristic. The lack of a role moderation with guilt / harm information

on threat offers support for deservingness over other motivations that Heuer et al.

suggested were specific to decision makers: efficacy in protecting the group and

responsibility to protect the group.

Deservingness and respect on procedural fairness. Hypothesis 4 predicted that

perceptions of deservingness would explain a greater amount of the variance in the

dependent variables compared to perceptions of respectful treatment. Results support this

hypothesis. While both respectful treatment and deservingness acted as antecedents to

procedural fairness judgments in the path model, deservingness explained more variance

in procedural fairness than respect. This finding provides further support that in this

experimental context, deservingness concerns were more salient for participants than

relational concerns. It is important to note that both the respect and deservingness paths

were significant in the model, suggesting that participants were motivated by both a

desire to see that people receive procedures they deserve, and a desire to see the

defendant treated respectfully (Lerner, 1977, 2003; Lind & Tyler, 1988). This finding

suggests that procedural justice researchers should consider models that integrate the

combined effects of both deservingness and relational motivations on justice reasoning.

Limitations and Future Directions

There were several limitations in this study. The design of the study might have

allowed participants to regain their cognitive resources, rather than have those cognitive

resources consumed by their emotional engagement. Two separate issues with the design

that may have allowed recovery of cognitive resources include asking participants to

adopt a role, and the time between administering the stimuli and questionnaire.

Role adoption and impression management. Lerner (2003) specifically mentions how asking participants to adopt a particular role can cause participants to act based on impression management instead of their initial deservingness based responses. I included role in the study, because it was important to test Heuer's decision maker, decision recipient disparity in the context of greater emotional engagement, particularly because Heuer et al. (2007) specifically discuss the importance of deservingness. However, the unexpected finding that role continues to moderate deservingness information when emotional engagement is high (contrary to Hypothesis 1) could have partially been due to this focus on role. Additionally, pilot testing revealed that it was necessary to stress the role manipulation several times in order for participants to successfully adopt their role. Because role instructions were issued four times during the procedure while the emotional engagement manipulation was delivered only once, this may have contributed to the importance of role concerns over deservingness concerns triggered with emotional engagement.

Future research should examine Lerner's (2003) claims that assigning participants to a role leads them to attempt to manage experimenters' impressions, resulting in justice judgments based on self-interest. Following Lerner's assertions, this research project should present participants with a vivid injustice, and encourage participants to make counternormative judgments to restore their sense of justice (e.g., victim derogation). Participants should be randomly assigned either to a non-role observer control group, a decision maker observer group (e.g., a professor), or a decision recipient observer group (e.g., a school employee). If Lerner's assertions about role are correct, participants in the

non-role control group should make more counternormative judgments and have stronger deservingness effects than participants in either role group.

Time between stimuli and questionnaire. Lerner (2003) also identified the length of time between the treatment and measuring phases of a study as a factor in whether participants are afforded the cognitive resources to consider other, self-interested, concerns. The use of a forced manipulation check procedure meant that participants often waited for the experimenter between receiving the stimulus and answering the questionnaire. In most cases, participants waited between one to two minutes. According to Lerner, this delay may have given participants time to recover the cognitive resources needed to make justice judgments that are based more on self-interest instead of the deservingness heuristic. Although a serious issue, this limitation does provide a more conservative test of the hypotheses, and the pattern of results aligns with predictions of this more conservative test.

Future research should examine the impact of time on whether participants use the deservingness heuristic or self-interest to respond to survey questions about justice. This research should show participants a vivid and emotionally engaging injustice and then vary the time between observing the injustice and when the participant completes a questionnaire about procedural and distributive justice with respect and deservingness as mediators. If Lerner's (2003) assertions about time and the deservingness heuristic are correct, the longer the amount of time between observing the injustice, the more strongly participants should base their justice judgments on respect. Conversely, the shorter the time between observing the injustice, the more strongly participants should base their justice judgments on deservingness.

Emotion Manipulation. Second, the study was limited by a weak manipulation of emotion. I attempted to manipulate emotional engagement in the study by showing half of the participants a video of the forceful arrest. Watching the video did manipulate negative emotional engagement, but the effect size of this manipulation indicated that other factors were contributing more strongly to variance in emotional engagement. Two possibilities might explain this lack of engagement (despite other studies having successfully manipulated emotions using video clips (e.g., Goldberg et al., 1999; Gross &Levenson, 1995). First, participants may be desensitized to the violence in the video due to the rising popularity of YouTube and other video streaming sites that were not available in the mid to late 1990s. Padilla-Walker, Nelson, Carroll, and Jensen (2010) found that emerging adults (aged 18 – 25), on average, spend 3 ½ hours per day on online entertainment. YouTube receives a large proportion of this traffic, reaching more emerging adults than traditional media (YouTube, 2013). Video streaming sites make depictions of violence in real-world scenarios readily available on the internet. For example, Liveleak.com, a popular video-streaming site specializing in videos depicting graphic violence (which also hosts the video used in this study) receives over 12 million unique visitors a month, with 1.31 times more traffic from emerging adults than the average website (Quantcast, 2013). Second, the video may not have been as impactful on participants' emotions because of a ceiling effect. The vignette by itself may have evinced close to as strong of an emotional response as can be expected from the scenario that watching the video did not greatly increase the response in participants. Although there was a significant mean difference in negative emotional engagement between the video present ($M = 5.60$) and absent ($M = 4.96$) conditions, the mean difference is

relatively small (.64 on a 9-point Likert scale). Future research should investigate better manipulations of emotional response, by either using a live study paradigm, or testing other video stimuli that may have stronger effects. Further, the use of a live study that manipulates emotion would be an instructive way to attempt to replicate these effects in a different experimental context.

Implications for Research

In support of Lerner's (2003) critique, the results suggest that emotional engagement activates deservingness concerns and suppresses relational concerns, although participants in this study were still able to consider relational concerns. The results of this study have far reaching implications for justice research. Modern justice research, particularly research on procedural fairness, has largely ignored the impact of emotion on justice reasoning. Although the group value model is among the most cited theories in social science (MacCoun, 2005), it may not generalize to many of the contexts in which it has been applied. Considering the impact that these findings have on the field of justice research, further research is needed to test and confirm the study's findings in other experimental contexts, using different methods. A live study that manipulates a highly salient emotional response is necessary to further investigate and confirm the findings in this study. If further research confirms these findings and Lerner's (2003) critique that justice judgments are affected by the emotional salience of the methods used by researchers, the challenge to justice researchers will be to consider the emotional salience of the methods they use. Replication of these findings would also suggest the need for a revised model of procedural and distributive justice judgments that considers the effects of emotional engagement, role, and deservingness concerns, as well as

relational concerns, on the justice judgments of both those witnessing and experiencing an injustice.

The results of this study also have implications for researchers working with Lerner's (1980) belief in a just world theory. Researchers struggling to manipulate belief-in-a-just-world attributions in experimental contexts (e.g., wrongful conviction research) should maximize the emotional salience of their stimuli for participants to ensure the activation of the deservingness heuristic.

Implications for Practice

Research by Sunshine and Tyler (2003) highlights the importance of increasing the public's perception that the police are fair. Through two surveys, they found that perceptions that the police act procedurally fair increased evaluations that the police are legitimate authorities that should be trusted and obeyed. In turn, evaluations of legitimacy increased compliance with the law and cooperation with the police (Sunshine & Tyler, 2003). The results from this study offer several practical recommendations for how the police can maximize perceptions of fairness and satisfaction during their encounters with the public.

First, the results showed that the police's role as an authority figure causes them to hold different concepts of fairness than the public. The results also support Heuer et al.'s (2007) finding of a decision maker-decision recipient disparity and extend their findings to the emotionally charged authority-subordinate dynamic of a police-citizen encounter Whereas the public are concerned with procedural fairness, (e.g., being treated with respect), the police are more concerned with ensuring outcomes that protect the public. This study builds on Heuer et al.'s findings by identifying the impact of emotion

on these perceptions of justice. Although controlling one's emotions is widely considered to be an aspect of professionalism, emotion management training is not often discussed. When emotion management is discussed, it typically focuses on tragic events and not everyday policing (e.g., Guy, Newman, & Ganapati, 2013; Pogrebin & Poole, 1995).

The results of this study highlight the importance of training the police in procedural fairness, deservingness, and the impacts of emotion on both officers and suspects. Understanding the impacts of emotion on the perceptions and actions of police officers may help with identifying when an officer is at risk of committing excessive violence that is justified as deserving. Additionally, we know that under certain circumstances, deservingness concerns can lead to counter-normative attributions such as victim derogation (Lerner & Matthews, 1967; Lerner & Simmons, 1966). So, the finding that the police are more concerned with seeing that people receive the things they deserve suggests a psychological mechanism for why some officers engage in excessive uses of coercive force.

This training would benefit the police by helping them understand both their own reactions to the many injustices they witness as frontline workers in the justice system and the reactions of the citizens they are dealing with. For example, the officer in a police-citizen encounter might think that he or she are being fair when he or she treats a citizen no better or worse than the citizen "deserves to be treated". But, if that fairness attribution is based in emotion caused by the encounter, the officer's sense of what is deserved may not align with natural justice or their obligations under the Charter of Rights and Freedoms or the Criminal Code.

Understanding how emotion impacts the perceptions and actions of citizens in contact with the law can also help the police understand how to provide procedures that are considered to be fair and gain legitimacy within their communities. If a citizen is motivated by relational concerns, or by emotionally motivated deservingness concerns, police actions that are based on differing deservingness attributions may lead to decreased perceptions of fairness and erode the citizen's sense that the police are legitimate.

Finally, the results suggest that even though respectful treatment may not always be deserved, treating an undeserving suspect respectfully does not necessarily lead to decreased perceptions of fairness or satisfaction. This is a "good news" finding because many citizens who interact with the police may not be considered particularly deserving of respectful treatment. Police can treat citizens more respectfully than they deserve to be treated while still appearing to be fair, highlighting the importance of procedural justice-based strategies of policing (e.g., Sunshine & Tyler, 2003). The psychological literature informs us that the most effective strategies for changing behaviour involve targeting the determinants of behaviour (e.g. Ajzen, 1985). In this thesis, I have highlighted several motivations that drive peoples' perceptions of justice. Some of these motivations (i.e., deservingness concerns, public safety concerns) provide insight into the determinants of police behaviour. This information will help in designing training that targets motivations that actually drive police officers to engage in respectful or disrespectful behaviour towards suspects.

Chapter 5: Summary and Conclusions

In this study, I considered how negative emotional engagement affects a model of justice reasoning informed by four theories in the justice literature, three of which represent theoretical challenges to the fourth – the group value model. In summary, these initial findings are promising. Our results support Lerner's (2003) critique, and indicate that emotional engagement affects how people reason about fairness. When participants were emotionally engaged, deservingness effects were strengthened, and treatment concerns were suppressed. These findings suggest that participants used different psychological mechanisms to subjectively determine what is fair depending on whether they were more or less emotionally engaged.

Practically, these findings demonstrate the importance of using emotionally engaging contexts when studying justice in the laboratory. This study adds to Lerner's (2003) critique in calling for justice researchers to use emotionally engaging methods. Researchers should expect different results depending on the emotional salience of their methods. Theoretically, these results suggest the need for a new model justice reasoning that accommodates the challenges to the group value model. Considering that the group value model is among the most cited theories in social psychology (MacCoun, 2005), it is important that its theoretical limitations be recognized. In the future, these results could be strengthened through replication, particularly using physiological measures of emotion and different experimental paradigms.

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Appendix A: Figures and Tables
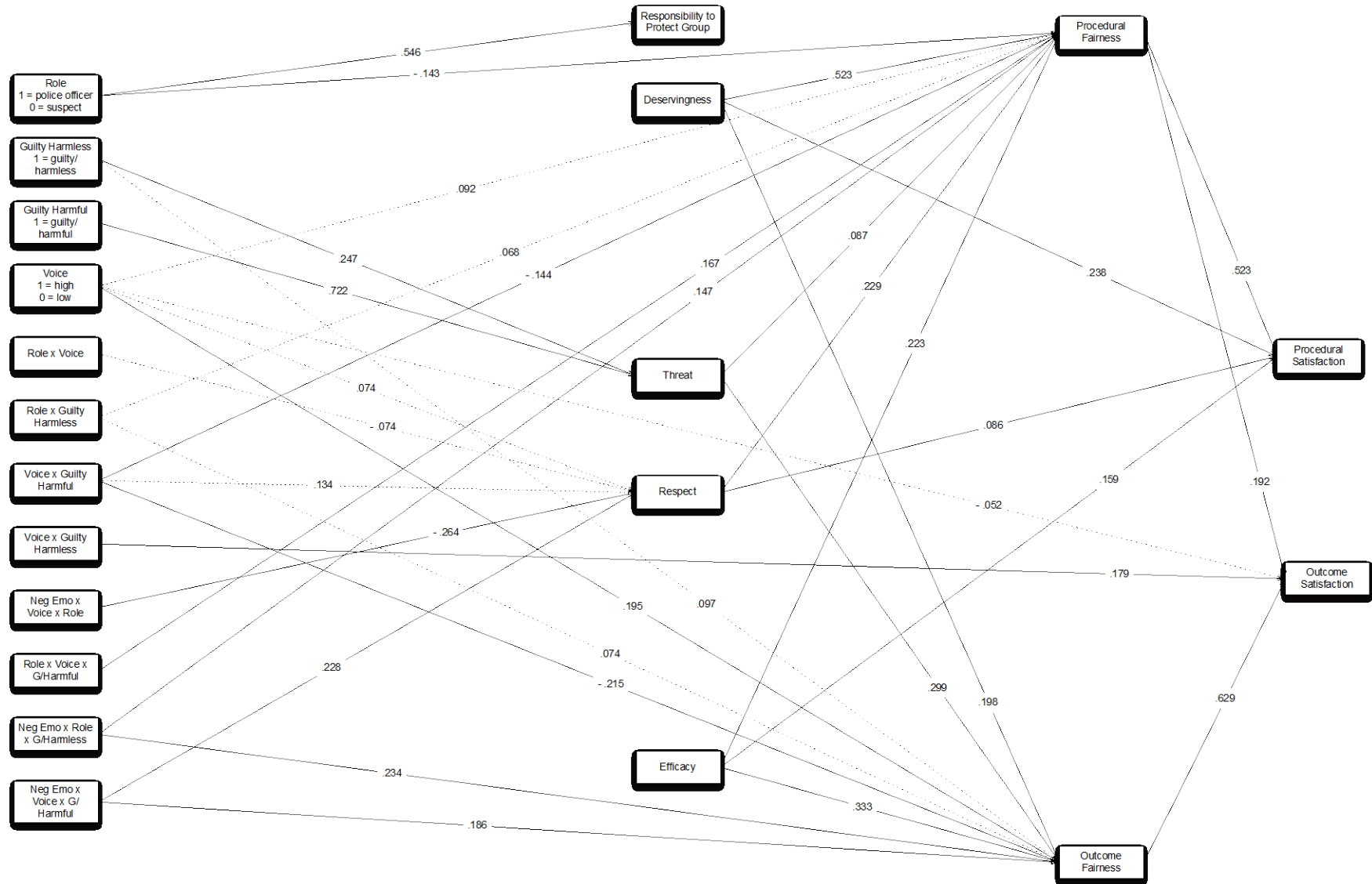
Figure 1: Causal Path Model of Justice Reasoning
Note. Beta weights for significant paths (*p* < .05) are displayed as solid lines. Non-significant paths are not shown, unless required to interpret interactions are displayed as dashed lines.

Table 1

Factor Loadings for Exploratory Factor Analysis with Varimax Rotation of Emotional Measures

Scale	Negative Emotional Engagement	Positive Emotional Engagement
Anger	**.69**	-.10
Confusion	**.69**	.02
Disgust	**.66**	-.10
Embarrassment	**.74**	-.08
Fear	**.78**	.04
Hopelessness	**.79**	-.18
Pain	**.77**	-.12
Sadness	**.74**	-.02
Surprise	**.65**	.20
Tension	**.71**	.01
Amusement	-.04	**.58**
Contentment	.11	**.70**
Happiness	-.19	**.80**
Relief	-.05	**.76**

Note. Factor loadings > .40 are in boldface.

Table 2

Descriptive Statistics for Measured Mediator and Dependent Variables

Measured Variables	Descriptive Statistics		
	n	*M*	*SD*
Mediator Variables			
Deservingness	258	3.32	2.11
Responsibility to protect the group	258	6.22	1.87
Efficacy of the procedure	258	5.02	2.17
Threat to the community	258	4.60	2.35
Respectful treatment	258	2.58	1.59
Dependent Variables			
Procedural Fairness	258	3.65	1.99
Outcome Fairness	258	4.79	2.29
Procedural Satisfaction	258	3.11	2.22
Outcome Satisfaction	258	4.97	2.43
Independent Variable			
Negative Emotional Engagement	258	5.29	1.80

Note. All variables measured on 9 point Likart Scales

Table 3

Hierarchical Multiple Regression Analysis Predicting Judgments of Procedural and Outcome Satisfaction

Predictor	Satisfaction Judgments			
	Procedural Satisfaction		Outcome Satisfaction	
	ΔR^2	β	ΔR^2	β
Step 1: (IVs and their interactions)	.25***		.23***	
Role (1 = Officer)		.004		-.006
Voice (1 = present)		.029		-.052
Guilt/Harm Info DD1 (1 = harmless bomb)		-.017		-.040
Guilt/Harm Info DD2 (1 = harmful bomb)		-.002		.055
Negative Emotional Engagement (Neg. Emo.)		-.019		-.019
Voice x Role		-.070		.054
Neg. Emo. x Role		.066		-.098
Role x DD1		-.011		.007
Role x DD2		.035		-.040
Neg. Emo. x Voice		-.075		-.036
Voice x DD1 (harmless)		-.078		.179*
Voice x DD2 (harmful)		-.049		.003
Neg. Emo. x DD1 (harmless)		-.102		.009
Neg. Emo. x DD2 (harmful)		-.066		-.043
Neg. Emo. x Voice x Role		-.091		.077
Neg. Emo. x Voice DD1 (less)		.121		-.046
Neg. Emo. x Voice x DD2 (ful)		.098		.076

Note. All *Beta* weights are taken from the final step in the model
* *p*≤ .05, ** *p*≤ .01, *** *p* ≤ .001;

Table 3 (Continued)

Hierarchical Multiple Regression Analysis Predicting Judgments of Procedural and Outcome Satisfaction

	Satisfaction Judgments			
	Procedural Satisfaction		Outcome Satisfaction	
Predictor	ΔR^2	β	ΔR^2	β
Voice x Role x DD1 (less)		.095		-.161
Voice x Role x DD2 (ful)		.007		.067
Neg. Emo. x Role x DD1 (less)		.013		.012
Neg. Emo. x Role x DD1 (less)		.013		.012
Step 2 (IVs and their interactions plus mediator variables)	.54***		.32***	
Deservingness		.238***		-.024
Respect		.086*		-.003
Efficacy of the procedure		.159***		.054
Threat to the community		.010		.025
Responsibility to protect the group		.030		.002
Step 3 (IVs and their interactions, plus mediator variables, plus dependent variables)	.05***		.17***	
Procedural Fairness		.523***		.192*
Outcome Fairness		-.067		.629***
Total R^2	.83***		.72***	
N	258		258	

Note. All *Beta* weights are taken from the final step in the model
* $p \le .05$, ** $p \le .01$, *** $p \le .001$;

Table 4

Hierarchical Multiple Regression Analysis Predicting Judgments of Procedural and Outcome Fairness

Predictor	Fairness Judgments			
	Procedural Fairness		Outcome Fairness	
	ΔR^2	β	ΔR^2	β
Step 1: (IVs and their interactions)	.23***		.23***	
Role (1 = Officer)		-.143*		-.161
Voice (1 = present)		.092		.195*
Guilt/Harm Info DD1 (1 = harmless bomb)		-.050		.097
Guilt/Harm Info DD2 (1 = harmful bomb)		-.013		.053
Negative Emotional Engagement (Neg. Emo.)		-.079		-.041
Voice x Role		.012		-.020
Neg. Emo. x Role		-.080		-.172
Role x DD1		.068		.074
Role x DD2		-.031		.026
Neg. Emo. x Voice		-.044		.029
Voice x DD1 (harmless)		-.047		-.191
Voice x DD2 (harmful)		-.144*		-.215*
Neg. Emo. x DD1 (harmless)		-.044		-.118
Neg. Emo. x DD2 (harmful)		.066		-.138
Neg. Emo. x Voice x Role		.016		-.169
Neg. Emo. x Voice DD1 (less)		.035		.098
Neg. Emo. x Voice x DD2 (ful)		.093		.186*

Note. All *Beta* weights are taken from the final step in the model
* $p \le .05$, ** $p \le .01$, *** $p \le .001$;

Table 4 (Continued)

Hierarchical Multiple Regression Analysis Predicting Judgments of Procedural and Outcome Fairness

Predictor	Fairness Judgments			
	Procedural Fairness		Outcome Fairness	
	ΔR^2	B	ΔR^2	B
Voice x Role x DD1 (less)		.043		.090
Voice x Role x DD2 (ful)		.167*		.156
Neg. Emo. x Role x DD1 (less)		.147**		.234**
Neg. Emo. x Role x DD2 (ful)		-.047		.170
Step 2 (IVs and their interactions plus mediator variables)	.59***		.38***	
Deservingness		.523***		.198**
Respect		.229***		.080
Efficacy of the procedure		.223***		.333***
Threat to the community		.087*		.299***
Responsibility to protect the group		.015		.032
Total R^2	.82***		.61***	
N	258		258	

Note. All *Beta* weights are taken from the final step in the model
* $p \le .05$, ** $p \le .01$, *** $p \le .001$;

Table 5: *Predictors of Proposed Mediators of Fairness and Satisfaction*

	Mediator Variables				
Predictor	Deservingness	Responsibility to Protect Group	Efficacy of the Procedure	Threat	Respect
	β	β	β	β	β
Role (1 = Officer)	.134	.546***	.107	.234	.039
Voice (1 = present)	.002	.065	.069	-.018	.074
Guilt/Harm Info DD1 (1 = harmless bomb)	.216	.176	.113	.247*	-.013
Guilt/Harm Info DD2 (1 = harmful bomb)	.255	.015	.198	.722***	.050
Negative Emo. Engage.	-.179	.095	-.022	.065	-.219
Voice x Role	.002	.018	.006	-.018	-.074
Neg. Emo. x Role	.179	-.099	.036	.106	-.258
Role x DD1	-.139	-.085	-.025	-.101	-.018
Role x DD2	-.003	.013	.072	-.091	-.021
Neg. Emo. x Voice	.047	.133	-.055	.011	.057
Voice x DD1 (harmless)	-.069	-.182	-.099	.099	.112
Voice x DD2 (harmful)	.012	.059	.099	.069	.134
Neg. Emo. x DD1 (less)	.009	-.012	-.066	-.111	-.007
Neg. Emo. x DD2 (ful)	-.191	.055	-.275	-.077	-.147
Neg. Emo. x Voice x Role	-.120	-.061	-.120	-.086	-.264*
Neg. Emo. x Voice x DD1	.052	.057	.199	.155	.060
Neg. Emo. x Voice x DD2	.196	.069	.187	.122	.228*
Voice x Role x DD1 (less)	.261	.153	.190	-.032	.237
Voice x Role x DD2 (ful)	.167	-.016	-.031	.034	.143
Neg. Emo. x Role x DD1	-.142	.029	-.121	-.131	-.137
Neg. Emo. x Role x DD2	-.043	.018	.136	-.105	-.098
Total R^2	.21***	.23***	.13***	.43***	.27***
N	258	258	258	258	258

*$p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

Appendix B: Dependent and Mediation Measures

Emotion Manipulation Check Scale: (Scale of 1-9 Did Not Feel Even the Slightest Bit – Most You have Ever Felt in Your Life)

Select the number that best describes the GREATEST amount of this emotion that you felt at any time during this study. [New paragraph:] On this scale, 1 means that you did not feel even the slightest bit of this emotion, and 9 is the most you have ever felt of this emotion in your life.

Circle the number that best describes the greatest amount of emotion you felt at any time during this study. On this scale, 1 means you did not feel even the slightest bit of emotion and 9 is the most you have ever felt in your life.

() Amusement
() Anger
() Arousal
() Confusion
() Contempt
() Contentment
() Disgust
() Embarrassment
() Fear
() Happiness
() Hopelessness
() Interest
() Pain
() Relief
() Sadness
() Surprise
() Tension

Voice Manipulation Check: (Scale of 1-9 Strongly Disagree—Strongly Agree)
() The suspect had a chance to tell his side of the story.
() The police officers listened to the suspect.

Mediation Questions

The following questions refer to the arrest procedure that you have witnessed. When answering these questions please think about the arrest from the time the officer first made contact with the suspect to the time the suspect was in custody in the campus security office.

Deservingness (Scale of 1-9 Strongly Disagree—Strongly Agree)
() The suspect deserved to be arrested in this way by the police officer.
() The police officers treated the suspect as he deserved to be treated.
() The suspect did not deserve to be treated by the police as he was during the arrest.

Protect Group - My Responsibility to protect welfare of community/victim/suspect
(Scale of 1-9 Strongly Disagree—Strongly Agree)
() It is my responsibility to protect the members of my community.
() If I do not succeed in protecting members of my community, justice will be denied.
() I am responsible for protecting the welfare of my community.

Effectiveness of the procedure at protecting university community
(Scale of 1-9 Strongly Disagree—Strongly Agree)
() The procedure used by the police officers during the arrest will most likely protect the public.
() The police officer's arrest procedures seem like they are effective at protecting the university community.
() The arrest procedure will be effective at protecting the welfare of the community.
() The methods used by the police during the arrest are effective in protecting the university community.

Respect – Ability of Police to convey respect and value to participants (Scale of 1-9 Strongly Disagree—Strongly Agree)
() The police officers were disrespectful to the suspect.
() The suspect was treated with respect by the police officers.
() The police officers were polite to the suspect.

Threat (Scale of 1-9 Strongly Disagree—Strongly Agree)
() The suspect would pose a serious threat to the community if he was released from police custody.
() The suspect's behavior posed a threat to people on campus.
() If the suspect had not been arrested, members of the university community would have been in danger.

Dependent variables
The following questions refer to the arrest procedure that you have witnessed. When answering these questions please think about the arrest from the time the officer first made contact with the suspect to the time the suspect was in custody in the campus security office.

Procedural Fairness (Scale of 1-9 Strongly Disagree—Strongly Agree)
() The arrest procedure used by the police officers was fair.
() The police officers treated the suspect fairly during the arrest.
() The police officers used unfair methods to arrest the suspect.
() The suspect was treated unfairly during the arrest.
() The arrest procedure was just.
() Under the circumstances, the arrest procedures are justified.

Outcome Fairness (Scale of 1-9 Strongly Disagree—Strongly Agree)
() The outcome of this arrest was a fair one.
() This arrest produced a fair result.
() I think that the arrest procedure produced a just result.

Procedural Satisfaction (Scale of 1-9 Strongly Disagree—Strongly Agree)
() I am satisfied with the procedure used by the police officers to arrest the suspect.
() I was pleased with the procedure the police officers used to arrest the suspect.

Outcome Satisfaction (Scale of 1-9 Strongly Disagree—Strongly Agree)
() I am satisfied with the outcome produced by this arrest procedure.
() I am pleased with the outcome that resulted from this arrest procedure.

Excessive Force?
() The police used excessive force during the arrest.
() The police did not use excessive force during the arrest.
() The police used appropriate force during the arrest.

Demographic Variables

Gender: (circle one)
     Male   *Female*

Age: _____

Ethnic origin: My Ethnic Background is (check the one that *most* describes you):
_____ Aboriginal (Inuit, Métis, North American Indian)
_____ Arab/West Asian (e.g., Armenian, Egyptian, Iranian, Lebanese, Moroccan)
_____ Black (e.g., African, Haitian, Jamaican, Somali)
_____ Chinese
_____ Filipino
_____ Hispanic
_____ Japanese
_____ Korean
_____ Latin American
_____ South Asian
_____ South East Asian
_____ White (Caucasian)
_____ Other _____

Appendix C: Manipulation Check Questions

DO NOT LOOK AT THIS UNTIL PROMPTED

[Police Officer Condition] As you answer these questions, do your best to imagine what you would feel if you were the first police officer who arrived on the scene in a scenario like this one.

[Suspect Condition] As you answer these questions, do your best to imagine what you would feel if you were the suspect who was arrested in a scenario like this one.

Please answer the following questions by circling the appropriate response:

1. The large black bag left in the cafeteria by the suspect contained:

(a)   A smoke bomb that would not have physically harmed anyone.

(a)   No illegal substances or weapons.

(a)   A toxic smoke bomb that could have caused severe illness.

1. Before he was taken into the campus security office, the suspect had an opportunity to ask questions about the arrest.

         Yes   No

1. As I read about this incident I imagined myself as:

(a)   the first police officer on the scene

(a)   the suspect who was arrested.

Appendix D: Vignette with Voice and Guilt/Harm Conditions

[**GUILTY/HARMFUL CONDITION:** Student arrested in toxic smoke bomb scare]

[**GUILT/HARMLESS CONDITION:** Student arrested in harmless smoke bomb scare]

[**INNOCENT CONDITION:** Student falsely arrested over bomb scare]

February 5, 2010

SOUTHERN ONTARIO– A student, identified as 19 year old, Tyler Scott, was arrested at a southern Ontario university campus yesterday following reports that he had brought explosives onto campus. Campus security has been on high alert this week, after three bomb threats phoned in over the last four days disrupted midterm exams and caused concern among students, faculty and staff.

Yesterday's incident began after campus security received several reports of a bulky black bag left in a busy cafeteria on campus. A food services worker who called campus security reported watching a student, later identified as Mr. Scott, leave a large bag in the cafeteria in what the worker described as a "suspicious manner". "I noticed him [Mr. Scott] standing by some tables." says food services worker Marisol del los Santos. "He looked around then put the bag under a table and left… he seemed in a hurry. It was very suspicious; with all the threats lately I was really concerned that it was a bomb."

The witnesses described Mr. Scott as wearing a distinctive short-sleeved white t-shirt with a large blue, red and black symbol on the front.

Upon receiving the call, campus security alerted the police. The police responded promptly, dispatching a number of officers, the Emergency Tactical Force (ETF), and the bomb squad. An

officer already on campus attending a campus security meeting was the first to arrive on scene. The officer located Mr. Scott in a main floor hallway leading from the cafeteria and was able to identify him by the distinctive symbol on his tee-shirt.

Eyewitnesses on the scene report that the arrest was conducted forcefully: The officer approached Mr. Scott, seized the front of his shirt, and pushed him against a nearby wall where he attempted to handcuff the suspect's hands behind his back. Witnesses report that Mr. Scott did not comply with the officer; instead, the suspect resisted the arrest, yelling and pushing against the officer and trying to break away from his hold.

"The cop just grabbed him without warning and pushed him into the wall. I think he thought he was getting jumped," said 20 year old student Britney Saini, who witnessed the arrest. "The cop was yelling, telling him to stop resisting and…[the suspect] was like, 'what did I do?'"

Witnesses report that the officer threw the suspect to the ground, at which point several other officers arrived on scene and began to try to restrain him. As the suspect continued to resist, several eyewitnesses report that the officers began to aggressively punch and kick the suspect in his torso, head, neck, and arms while yelling, "Stop resisting" and "Give us your arms". After two more officers arrived on scene, the police were able to handcuff the suspect. After being subdued, the suspect became compliant and allowed the initial arresting officer to lead him to the campus security office.

"Once they [the police] got him on his feet and started walking him away he said he was going to cooperate. It was at a point where he was saying 'OK, yeah, I'll relax now'", said a witness to the tail end of the arrest, 21 year old student Leif Munaz.

Witnesses report that the police continued to handle Mr. Scott quite forcefully as they walked him to the campus security office. "I was on my way to a class, but they were ahead of me in the hallway, so I was behind them for quite a while as they were walking this student towards the security office" says faculty member Dr. Anna Heuer. "There were six or seven police officers walking this one student, and they had him restrained the whole time that I saw them – two of them were holding his arms behind his back. **[VOICE CONDITION:** He [Mr. Scott] seemed to be talking a lot – he was asking the cops a lot of questions, like why he was under arrest and what was going to happen next. He just kept saying over and over that he had just left his hockey bag in the cafeteria and had been on the way to the washroom, that he hadn't done anything wrong and didn't deserve to be arrested. The cops seemed to actually be listening to what he was saying, and at one point I heard them explain to him that he was under arrest for the stuff in the large black bag he had left in the cafeteria, and that he would remain in custody until they determined its contents.**]**; **[NO VOICE CONDITION:** He Mr. [Scott] seemed to be trying to speak – he would start to ask questions, like why he was under arrest and what was going to happen next. He kept trying to say that he had just left his hockey bag in the cafeteria and had been on the way to the washroom, that hadn't done anything wrong and didn't deserve to be arrested. But they weren't listening to him at all. Whenever he tried to speak they just kept yelling at him and cutting him off. At one point I heard one of them yell at him that they didn't care what he had to say, and they didn't want to hear anything from him except what was in the bag that he had left in the cafeteria.**]** They said that they were taking him into custody to find out why he had brought that stuff to campus. By the time they got to the campus security office he seemed pretty subdued."

Mr. Scott was questioned by police and campus security for several hours.

[GUILTY/HARMFUL CONDITION: A search of the suspect's large bag by the bomb squad revealed a package containing an explosive mixture of chemicals. The bomb squad was able to conduct a controlled explosion several miles from the university campus and concluded that the package contained a smoke bomb made from readily available ingredients that experts say would have released toxic fumes into the campus, potentially requiring the hospitalization of hundreds of students and staff. Mr. Scott has been charged with possessing an explosive device, assaulting a police officer, and resisting arrest, and is in custody awaiting a bail hearing. Mr. Scott's attorney has released a statement saying that Tyler Scott will plead guilty to the charges, and that he "deeply regrets having placed his fellow students in such great danger. Mr. Scott was playing a practical joke that went too far. He was unaware that the mix of chemicals was toxic or harmful in any way. His intent was to play a harmless prank that would disrupt midterm examinations, and he would never knowingly take part in any action that would harm any of his fellow students."

Mr. Scott's bail hearing will be held tomorrow morning.**];**

[GUILTY/HARMLESS CONDITION: A search of the suspect's large bag by the bomb squad revealed a package containing an explosive mixture of chemicals. The bomb squad was able to conduct a controlled explosion several miles from the university campus and concluded that the package contained a harmless smoke bomb made from readily available ingredients. Mr. Scott has been charged with possessing an explosive device, assaulting a police officer, and resisting arrest, and is in custody awaiting a bail hearing. Mr. Scott's attorney has released a statement saying that Tyler Scott will plead guilty to the charges, and that he "deeply regrets having scared his fellow students. Mr. Scott was playing a practical joke that went too far. He created a smoke bomb that would not physically harm anyone. His intent was to play a harmless prank that would

disrupt midterm examinations, and he would never have taken part in any action that would

actually harm any of his fellow students."

Mr. Scott's bail hearing will be held tomorrow morning.**]**;

 [INNOCENT CONDITION: A search of the suspect's hockey bag by the police did not reveal

any weapons or illegal substances. A search of the building by police also did not produce any

weapons or explosives, and Mr. Scott was released without being charged. Mr. Scott's attorney

has released a statement saying that Tyler Scott had "left his bag in the cafeteria while going to

use the washroom, and would never have taken part in any action that would harm any of his

fellow students".**]**

Appendix E: Consent Form

<u>Consent Form</u>

You are invited to voluntarily participate in the following research project: **Bomb Scare**. In this study, you may be asked to watch a video, read a newspaper article, and then answer some questions about your reaction to the video and article. We expect that it will take 40-45 minutes for you to complete this study.

Please note that your participation in this study is completely voluntary and if you feel any discomfort, you may withdraw from this study at any time without any consequences or penalties. You are not obliged to answer any questions that you find objectionable or which make you uncomfortable.

You will be given one credit for your participation in this study. Full credit will be awarded whether you complete the study or not.

All information will be stored in a secure area. Individual responses will remain anonymous and will not be released to professors or in publications. Only group results will be reported (e.g., conferences presentations, journal articles). Dr. Diane Sivasubramaniam and her research assistants will be responsible for keeping and analyzing the anonymous data files based on your responses. Also, other researchers could request to analyze these anonymous files for other valid research purposes (e.g., for meta-analyses).

This study has been reviewed and cleared by the Research Ethics Board at UOIT (REB # 09-147). The principal investigator is Jeremiah Baarbe, under the supervision of Dr. Diane Sivasubramaniam of the Faculty of Social Science and Humanities, UOIT. In the event that you have any questions, concerns, or complaints, you may contact Dr. Diane Sivasubramaniam (diane.sivasubramaniam@uoit.ca; 905-721-8668 ext. 3806), or the REB Administration (compliance@uoit.ca; 905-721-8668, ext. 3693).

I have read and understood the statements above. My signature, below, indicates my free and informed consent to participate in this research.

Name (please print): _____

Signature: _____   Date: _____

Appendix F: Debriefing Sheet

Thank you for participating in this study!

The study you just participated in is designed to test a theory suggesting that decision makers and decision recipients evaluate the fairness of arrest procedures differently in emotional contexts. Although all of you read a story with the same basic outline, the details of the story varied. In addition to variations in the story, we also varied whether or not you were shown a video before you read the story. These variations are the key factors that we manipulated in our study, and I will summarize them briefly for you now.

The first variable that we manipulated was Role. You were asked to imagine that you were one of the people involved in the arrest you just read about. Some of you were in the Authority role, in which you were asked to imagine that you were the police officer who first approached the suspect. Some were in the Target role, in which you were asked to imagine yourselves as the arrested student.

The second variable that we manipulated was whether you viewed a Video of the incident described in the news story. Some of you viewed a video of the forceful arrest while some of you did not.

The third variable that we manipulated was Voice; that is, we varied whether or not the police gave the suspect the opportunity to present his version of events, and listened while the suspect expressed his opinion about the arrest. In the No-voice condition, the suspect was told that the police were only interested in the contents of the bag and did not care what he had to say. In the Voice condition, the police listened to the suspect while he asked questions and expressed his opinion about the arrest.

Finally, we manipulated was how Deserving the suspect was of their treatment by the police. We manipulated this variable by varying whether or not the large black bag contained an explosive device. Some of you (in the Guilty-Harm condition) were informed that the suspect had been trying to plant a smoke bomb that would have released toxic fumes and might have hospitalized a number of students and staff. Others (in the Guilty-Harmless condition) were told that a search of the bag revealed a harmless smoke bomb that the suspect planned on setting off as a prank. Lastly, some of you (in the Innocent condition) were told that the bag did not contain any harmful or illegal substances and that the suspect had simply set the bag down before going to the washroom.

Our four manipulations led to a design of 24 cells (or combinations of the variables). You were randomly assigned to one of these 24 conditions.

This study examines whether your reactions to the story and your judgments about the fairness of the forceful arrest differ based on whether you watch the video or not.

We also test a hypothesis about how authorities (in this case, the police) view the fairness of procedures, when compared to decision recipients (arrested suspects). In line with previous research, we expect to find that information that the suspect was guilty of possessing a harmful smoke bomb will increase the perception that the violent arrest procedure was fair but that this

effect will be stronger for authorities than for suspects. We expect that this is because authorities determine the fairness of the arrest procedure based on a perceived responsibility to protect the community, are more concerned with whether a procedure is effective in protecting the community, the threat to the community, and are more likely to use deservingness information to determine fairness, compared to suspects.

We also expect that being told that the suspect was offered voice will increase the perception that the arrest was fair, and that this will be stronger for suspects that for authorities. We expect that this effect occurs because suspects are perceiving voice to be an indication of respectful treatment.

Finally, we expect that the fairness judgments of participants who watch the video will be based more on guilt/harm information than on voice while the judgments of participants who did not watch the video will be based more on whether the suspect was given voice.

The questionnaire you completed after reading this story provides us with the data we need in order to test our predictions.

The incident that you read about in the article is not real: The newspaper article is completely fictitious. However, the video that you may have watched is from a real incident that occurred at the University of Western Ontario in October, 2009. This incident was only partially captured on the video. The incident was reported in a number of major papers at the time. In the actual incident, the suspect seen in the video was arrested for barricading himself in an office and violently accosting students and staff. He was charged with mischief under $5000, assaulting a police officer, resisting arrest, and escaping lawful custody, and was taken to the hospital after being subdued. If, after the experimental session has ended, you feel any discomfort as a result of watching this video, we encourage you to contact the UOIT Counselling Service on 905 721 8668, x2182.

If you have any additional questions, please feel free to stay and discuss them with us now or to contact Dr. Diane Sivasubramaniam at diane.sivasubramaniam@uoit.ca.

Thank you again for your participation and assistance with our research!

Jeremiah Baarbé and Dr. Diane Sivasubramaniam

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