

*European Journal of Social Psychology*  
*Eur. J. Soc. Psychol.* **29**, 781–795 (1999)

## Rage and reason: the psychology of the intuitive prosecutor

JULIE H. GOLDBERG,<sup>1\*</sup> JENNIFER S. LERNER<sup>2</sup> and PHILIP E. TETLOCK<sup>3</sup>

<sup>1</sup>*University of California, Berkeley, USA*

<sup>2</sup>*Carnegie Mellon University, Pittsburgh, USA*

<sup>3</sup>*The Ohio State University, USA*

### *Abstract*

*This study explores the conditions under which experimentally primed anger influences both attributions of responsibility and the processes by which people make such attributions. Drawing on social functional theory, it was hypothesized that people are best thought of as 'intuitive prosecutors' who lower their thresholds for making attributions of harmful intent and recommending harsh punishment when they both witness a serious transgression of societal norms and believe that the transgressor escaped punishment. The data support the hypotheses. Anger primed by a serious crime 'carried over' to influence judgments of unrelated acts of harm only when the perpetrator of the crime went unpunished, notwithstanding the arousal of equally intense anger in conditions in which the perpetrator was appropriately punished or his fate was unknown. Participants in the perpetrator-unpunished condition also relied on simpler and more punitive attributional heuristics for inferring responsibility for harm. Copyright © 1999 John Wiley & Sons, Ltd.*

A classic tension exists between rage and reason (for discussions, see Aristotle, 325 BC/1962; Freud, 1924; Kant, 1781/1900; Lerner, Goldberg & Tetlock, 1998; Solomon, 1990, 1994; Tavis, 1989). Scholars have long suspected, and researchers have subsequently demonstrated, that there are numerous ways in which anger, once activated, degrades subsequent reasoning processes. Even when the object of subsequent judgments bears no relation to the source of one's anger, anger increases: (1) a desire to blame individuals, (2) tendencies to overlook mitigating details before

\*Correspondence to: Julie Goldberg, 3210 Tolman Hall, Department of Psychology, University of California, Berkeley, Berkeley, CA 94720, USA. e-mail: [julieg@socrates.berkeley.edu](mailto:julieg@socrates.berkeley.edu)

Contract/grant sponsor: US National Science Foundation.  
Contract/grant number: SRB-9505680.

CCC 0046–2772/99/050781–15\$17.50  
Copyright © 1999 John Wiley & Sons, Ltd.

*Received 9 March 1998*  
*Accepted 12 October 1998*

attributing blame, (3) tendencies to perceive ambiguous behavior as hostile, (4) tendencies to discount the role of uncontrollable factors when attributing causality and (5) punitiveness in response to witnessing mistakes made by others (Keltner, Ellsworth & Edwards, 1993; Lerner & Dodge, 1993; Lerner *et al.*, 1998; Quigley & Tedeschi, 1996). One might conclude, just as Kant and Freud did, that rage and reason are mutually exclusive. Anger only interferes with 'rational' cognitive processes. It turns 'intuitive scientists' (who seek to understand why events occur) into 'intuitive prosecutors' (who have low thresholds for affixing blame and imposing penalties). But is indiscriminate punitiveness the inevitable result of anger? Are there no stopping mechanisms for the tendency of anger to color unrelated judgments? In this article, we test hypotheses derived from a new social-functional analysis of emotion and judgment that challenge the view that rage and reason are always mutually exclusive. More specifically, we specify the conditions under which anger will and *will not* influence subsequent judgments in situations that are unrelated to the source of one's anger.

This social-functional approach to emotion and judgment posits that the human emotion system serves both interpersonal and intrapersonal functions (for related discussions, see Durkheim, 1843/1984; Frijda & Mesquita, 1994; Lerner & Keltner, *in press*; Parkinson, 1997). The approach assumes that emotions serve *interpersonal* functions by producing specific action tendencies which allow individuals to adaptively interact with their social environment, such as by forming attachments, resolving injustices, negotiating hierarchies, and adhering to social norms (Barrett & Campos, 1987; Ekman, 1992; Frank, 1988; Keltner & Kring, *in press*; Lutz & White, 1986; Nesse, 1990; Schwarz, 1990). Emotions also serve *intrapersonal* functions by interrupting ongoing cognitive processes to direct attention, memory, and judgment to deal quickly with encountered problems or opportunities in the environment (see Johnson-Laird & Oatley, 1992; Lazarus, 1991; Schwarz, 1990; Simon, 1967; Tooby & Cosmides, 1990). For example, cognitive appraisals of injustice lead to anger, whereas appraisals of uncertainty regarding future harm invoke fear (Smith & Ellsworth, 1985). These appraisals then trigger a set of cognitions and actions to address the goal of redressing injustice, in the case of anger, and avoiding harm in the case of fear (Frijda & Mesquita, 1994; Lerner *et al.*, 1998; Lerner & Keltner, *in press*). Indeed, the tendency to perceive new information in ways that are consistent with the appraisal pattern underlying a salient emotion can be so strong that they persist beyond the event that elicited the emotion. For example, one study found that feelings of anger persisted to color participants' attributions of causality in other, unrelated situations, such that they were more likely to view individuals as causal agents rather than situational factors (Keltner *et al.*, 1993).

In summary, like other advocates of a social functional approach to emotion (e.g., Barrett & Campos, 1987; Frijda & Mesquita, 1994; Lazarus, 1991), we argue that emotions tie individuals to their social world by rapidly activating cognitive and behavioral response tendencies which allow individuals to adapt to their environment. More importantly, though, as Lerner and Keltner (*in press*) also suggest, we specify a stopping mechanism for these tendencies. To the extent that the emotionally arousing situation is resolved or the opportunity responded to, emotions should no longer influence subsequent judgments (cf. Frijda, 1988; Haidt, Silvia & Dias, 1993), even if the emotion persists experientially.

When applied to anger, two testable hypotheses flow from this social-functional approach. The first hypothesis addresses whether anger activated in one situation will

influence judgments in other, unrelated situations. Specifically, we predict that if participants learn that justice was *not* served after an anger-eliciting event, then their anger will direct attention, memory, and judgment toward the goal of redressing injustice, creating 'intuitive prosecutors'. As a consequence, participants' anger over injustice in one situation should predict participants' willingness to punish future, unrelated transgressors. By contrast, learning that justice was served should deactivate the goal of redressing past injustice. Under these circumstances, participants' anger should not predict their subsequent willingness to punish in unrelated situations, even if their anger persists experientially.

The second hypothesis addresses whether or not facts in subsequent judgment tasks will be assessed in a selective and simplistic way or in an open-minded and complex way. If participants learn that justice was *not* served, their anger should activate an indiscriminate tendency to punish others in unrelated situations without regard for whether their actions were intentional or not. By contrast, learning that the perpetrator was punished should deactivate this tendency. As a consequence, participants in this condition should take into account whether others' actions were intentional before determining the severity of punishment (Figure 1 presents a schematic summary of these hypotheses).

**METHOD**

In order to arouse anger, this study presented participants with a situation in which a harm was committed while systematically varying the extent to which justice was

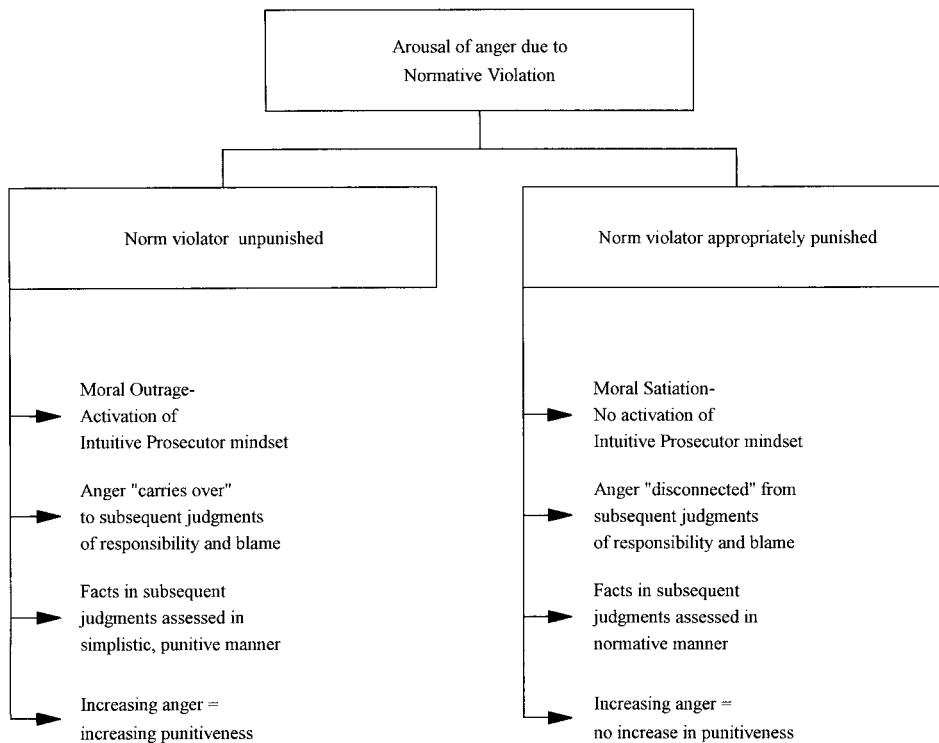


Figure 1. The activation and effect of the intuitive prosecutor mindset on justice judgments

served. The goal was to determine whether anger, coupled with the knowledge that an injustice had occurred, would differentially affect participants' willingness to punish future transgressors, compared with anger coupled with the knowledge that justice had been served. To test this hypothesis, we used as dependent measures participants' judgments about situations which were unrelated to the original instance of wrongdoing: attributions about four fictional vignettes describing acts of negligent and reckless behavior.

### **Design**

We used a mixed factorial design, crossing four levels of justice feedback and emotional arousal (punished, unpunished, justice-ambiguous, no emotion)  $\times$  four types-of-harm vignettes (repeated-measures). One hundred and thirty-three undergraduate students participated in partial fulfillment of a course requirement.

### **Procedural overview**

We employed a standard 'multiple unrelated studies' paradigm. Upon entering the lab, small groups of participants were informed by an experimenter, blind to the experimental condition, that in order to give the participants credit for a full hour of research participation, she would administer two short, unrelated studies. Participants were told that the first study was being administered on behalf of another professor and that the second study was 'ours'.

The first 'study' was said to be about participants' emotional responses to videos. In actuality, this was our experimental manipulation. All participants in the experimental conditions watched a video of a clear act of wrongdoing which consistently aroused anger—a video of a man beating up a helpless teenager. However, prior to watching the film, we manipulated expectations about the extent to which justice was served through three levels of randomly assigned justice feedback—either the man was said to have been punished, to have escaped punishment, or there was no information about the fate of the man. After watching the video, participants completed an Emotional Arousal Questionnaire. They also responded to a series of open-ended questions about the content of the video in keeping with our cover story. The order of receiving the Emotional Arousal Questionnaire and the open-ended questions was counterbalanced between participants. The second 'study' was said to be about how individuals make attributions of responsibility. This study contained our dependent measures. Participants read each of four counter-balanced vignettes that depicted acts of negligence or recklessness and then completed a series of questions on their perceptions of responsibility, blame and punishment.

### **Independent variable**

#### *Justice feedback*

Before viewing the anger-eliciting crime video, participants were randomly assigned to one of four levels of justice feedback. The crime-video was a scene from the movie *My Bodyguard*. This video clip was selected out of an initial pool of 250 films by

Gross and Levenson (1995) because it reliably elicits anger.<sup>1</sup> The choice of a video, rather than a traditional pen-and-paper emotional arousal technique, provided for a more engaging emotional experience (Gross & Levenson, 1995) and removed the possibility that the perpetrator or victim had any personal relevance to the participants. The different justice feedback conditions described a state of the world in which: (1) the wrongdoer was caught and appropriately punished (the 'Punished' condition,  $n = 27$ ); (2) the wrongdoer was caught but escaped punishment because of 'a technicality' (the 'Unpunished' condition,  $n = 29$ ); or (3) there was no information about the fate of the wrongdoer (the 'Justice-ambiguous' condition,  $n = 50$ ). The fourth condition was a 'No emotion' control condition in which participants were not exposed to the emotionally-arousing crime video and, hence, received no justice feedback (the 'No-emotion' condition,  $n = 27$ ).

### *Emotional arousal*

Participants' emotional arousal in response to the crime video was assessed using Gross and Levenson's (1995) self-report method. The measure consisted of 17 separate emotions that participants rated on an 8-point Likert scale. The scale ranged from (1) 'did not feel even the slightest bit' to (8) 'most you have ever felt in your life'. The emotions were presented in alphabetical order so as not to indicate our interest in any single emotion. The emotions that participants rated were: amusement, anger, arousal, confusion, contempt, contentment, disgust, embarrassment, fear, happiness, hopelessness, interest, pain, relief, sadness, surprise, and tension.

### **Dependent measures**

#### *Negligence vignettes*

The repeated-measures variable consisted of four vignettes that described an individual's negligent or reckless behavior that resulted in the harm of an innocent victim. In order to increase the generalizability of our findings, we used four different vignettes that varied in the nature and severity of the harm, the type of perpetrator and victim, and the level of intentionality. Two of these vignettes (vignettes III and IV) were adopted from Hamilton and Sanders (1981). All four vignettes were previously tested by Lerner, Goldberg and Tetlock (1998) (see Appendix for the text of all four vignettes).

#### *Punitiveness*

The main dependent measures assessed perceptions of how blameworthy and deserving of punishment the defendants were in the four vignettes. Specifically, we asked, on a scale of 1 to 7, (a) how intentional the defendant's actions were; (b) to what extent

<sup>1</sup>The film clip tends to elicit feelings of disgust in conjunction with anger. As Gross and Levenson (1995) discovered, eliciting anger, alone, is extremely difficult. There is a natural tendency for anger to co-occur with other negative emotions, particularly disgust.

the defendant should be blamed for not preventing the harmful outcome that occurred; (c) to what extent the defendant should be punished for not preventing the harmful outcome that occurred; (d) how much money, if any, should be paid to the victim; (e) how reckless the defendant seemed to be in the vignette; and (f) how reckless the defendant might be in future situations. We also asked participants (g) how much personal control the defendant had, and (h) how mitigating circumstances might affect their assignment of blame.

## RESULTS

### Preliminary analyses

#### *Aggregation of emotion measures*

The seventeen emotion items were subject to a Principal Components analysis and reduced to four orthogonal components. The same component structure emerged when using both a varimax and oblimin rotation. The first or 'Distress' component accounted for 32.1% of the variance, with factor loadings ranging from 0.64 to 0.75.<sup>2</sup> The second or 'Anger' component accounted for an additional 13.6% of the variance, with factor loadings ranging from 0.53 to 0.78.<sup>3</sup> The third or 'Contentment' component accounted for an additional 9.3% of the variance, with factor loadings ranging from 0.61 to 0.83.<sup>4</sup> The final or 'Interest' component accounted for an additional 7.0% of the variance, with factor loadings ranging from 0.40 to 0.82.<sup>5</sup> Component scores were calculated for all four emotion components by averaging the items that loaded onto the component.

#### *Aggregation of attribution of responsibility measures*

To reduce the complexity of the analyses and to avoid Family-wise Type I error, we collapsed across all four vignettes to create average vignette items and submitted these eight items to a principal components analysis with varimax rotation. The analysis yielded two components. An identical component structure emerged when the analysis was repeated with a nonorthogonal (oblimin) rotation. The first or 'Punitive' component accounted for 40.5% of the variance, with factor loadings ranging from 0.57 to 0.80.<sup>6</sup> The second or 'Control' component accounted for an additional 20% of the variance, with factor loadings of 0.91 and 0.92.<sup>7</sup> Component scores were calculated for both components by averaging the items that loaded onto the component.

<sup>2</sup>The 'Distress' component included the items 'hopelessness', 'fear', 'embarrassment', and 'pain'.

<sup>3</sup>The 'Anger' component included the items 'contempt', 'anger', 'arousal', 'disgust', 'sadness', and 'tension'.

<sup>4</sup>The 'Contentment' component included the items 'contentment', 'happiness', 'amusement', and 'relief'.

<sup>5</sup>The 'Interest' component included the items 'surprise', 'confusion', and 'interest'.

<sup>6</sup>The 'Punitive' component contained the items about intention, blame, recklessness, predicted recklessness, monetary damage, and punishment.

<sup>7</sup>The 'Control' component contained the items about control and mitigation.

*Validity check*

Given the need for participants to believe that the two studies were separate, we developed an extensive demand awareness coding scheme. At the end of the experiment, we employed a funnel interview format which began by asking participants to indicate what hypotheses they thought were being tested in the second study (the study about attributions of responsibility). Participants were then asked whether they had participated in more than one study during the hour and, if so, to indicate if they saw any connection between the studies. If they replied 'yes', they were asked to explain what that connection was. These responses were then coded to indicate the participant's level of demand awareness. A score of 'zero' indicated no awareness of any relationship between the studies; a score of 'one' indicated an awareness of some relationship between the studies but no threat to the actual research hypotheses; a score of 'two' indicated some awareness of a plausible but unrelated research hypothesis; and a score of 'three' indicated full awareness of the research hypothesis. No participant indicated awareness of our research hypothesis; hence, no participants were dropped from the analyses.

*Manipulation check*

Our manipulation proved to be successful: participants felt more anger than any other emotion after viewing the crime video. Specifically, when comparing the emotion component scores, participants reported significantly more Anger ( $M = 4.18$ ) compared with the average of the other three emotions, Distress, Contentment, and Interest ( $M = 1.85$ ), in all three conditions in which they viewed the crime video (Punished, Unpunished, and Justice Ambiguous) ( $F(1,104) = 371.62, p < 0.001$ ). There were no significant differences in participants' level of anger across the three experimental conditions (Punished  $M = 4.24$   $F(2,103) = 0.67, ns$ ). Participants felt significantly more anger in the three experimental conditions, averaged together ( $M = 4.18$ ), than did participants in the No Emotion control condition ( $M = 1.56, F(1,131) = 69.95, p < 0.001$ ).

**Hypothesis testing***Anger's influence on future punitiveness is moderated by perceived injustice*

We hypothesized that the influence of anger on subsequent punitiveness would depend on the justice feedback, such that only anger over injustice should persist to influence future punitiveness. To test this hypothesis, we first created three dummy variables to account for the main effect of the four experimental conditions on the dependent variable, punitiveness. Then we created three interaction product variables to account for the interaction effect. Punitiveness scores were regressed on the dummy variables and the anger component scores in the first step of a regression equation. In the second step, the interaction product variables were added to the equation as a set. If the interaction is significant, the addition of the interaction product variables should significantly increase the variance accounted for.

Our hypothesis received support: the interaction product variables significantly increased the variance accounted for ( $R^2\Delta = 0.12$ ,  $p < 0.001$ ).<sup>8</sup> To test the simple effects of this interaction, we regressed participants' punitiveness score on their anger component score within each justice-feedback condition. As predicted, anger aroused in the Unpunished condition significantly predicted willingness to punish the defendants in the negligence vignettes ( $F(1,25) = 25.53$ ,  $p < 0.0001$ ,  $R^2 = 0.51$ ). By contrast, when anger was not in response to a unequivocal act of injustice (either because the wrongdoer in the crime video was appropriately punished, the nature of the punishment remained ambiguous, or participants did not view the crime video), anger was not significantly related to willingness to punish the defendants in the negligence vignettes ( $F(1,25) = 0.74$ , ns,  $R^2 = 0.03$ ;  $F(1,46) = 0.50$ , ns,  $R^2 = 0.01$ ;  $F(1,24) = 0.01$ , ns,  $R^2 = 0.00$ , respectively). In other words, as participants got angrier, they became more punitive only when they believed that an injustice had occurred in the original crime video. Figure 2 displays the relationship between anger and punitiveness as a function of the justice feedback.<sup>9</sup>

*Anger over injustice mediates the relationship between perceived intention and punishment*

We hypothesized that anger over injustice would also influence the standards that participants employ for determining who deserves punishment. We distinguished two attributional pathways to punishment. The first path represents the legally and normatively defensible attributional pathway: greater perceived intent leads to greater punishment. Holding all else constant, we predicted that participants should be willing to punish the defendants in the vignettes only to the degree that they were clearly intending harm. However, participants who believed that the perpetrator in the crime-video had not been properly punished and justice had failed should be motivated to punish more indiscriminately. Therefore, in this condition, anger should completely mediate the relationship between perceived intention and punishment such that intention no longer predicts punishment when anger is entered into the equation.

We conducted a path analysis to test whether the process by which participants determined the appropriate level of punishment differed by experimental condition. In the first step, punishment was regressed on intention for each experimental condition. As expected from attribution theory, intention significantly predicted the level of punishment for all three experimental conditions (Unpunished  $\beta = 0.43$ ,  $p < 0.05$ ; Punished  $\beta = 0.60$ ,  $p < 0.01$ ; Justice Ambiguous  $\beta = 0.34$ ,  $p < 0.05$ ). In the second step, anger was added to the equation. Intention still significantly predicted the level of punishment in the Punished ( $\beta = 0.57$ ,  $p < 0.01$ ) and the Justice Ambiguous ( $\beta = 0.37$ ,  $p < 0.05$ ) conditions. By contrast, in the Unpunished condition, the

<sup>8</sup>The differential strength of the relationship between anger and punitiveness by experimental conditions is not due to differential variance among conditions. Barlett's test of homogeneity for both participants' Anger scores and Punitiveness scores were not significant ( $p = 0.225$ ,  $p = 0.394$ , respectively).

<sup>9</sup>It looks as though low anger scores (<4) lead to less punitiveness among participants in the Unpunished condition compared with participants in the Punished condition. A test of the simple effects reveals no significant differences in mean-level punitiveness for those participants whose Anger score is less than four ( $F(1,16) = 3.81$ , ns).



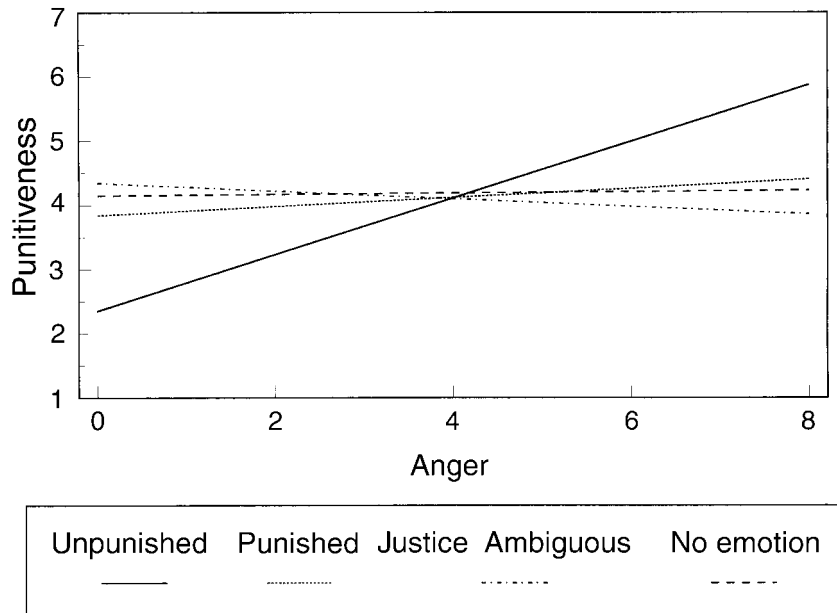


Figure 2. The relationship between self-reported anger and punitiveness is moderated by the level of justice feedback

relationship between intention and punishment dropped to insignificance ( $\beta = 0.26$ , ns). Only anger predicted the level of punishment ( $\beta = 0.29$ ,  $p = 0.05$ ).

## DISCUSSION

The social-functional view of anger explained key aspects of the data that are difficult to explain in terms of established appraisal theory. Appraisal theory predicts that increasing anger will lead to an increasing willingness to blame individuals for wrongdoing. However, we predicted and found that anger did not uniformly lead to blame and punishment. Rather, this relationship depended on the social context of wrongdoing. Specifically, we found that only anger combined with the belief that an explicit injustice had occurred led to increasingly punitive judgments of other wrongdoers (the defendants in the vignettes). However, when either the wrongdoer in the video was appropriately punished or issues of punishment remained ambiguous, anger did not 'carry over' onto subsequent judgments of the defendants in the vignettes. Moreover, this occurred even though participants experienced the same level of anger after viewing the crime-video in all three experimental conditions. In addition, those participants who were explicitly told that justice had been served, or those for whom issues of justice were not raised, took into consideration the defendants' intentions in determining an appropriate level of punishment, a normatively defensible attributional pathway (Shaver, 1985). This pathway contrasts sharply with that for participants who believed that an injustice had occurred: the relationship between intention and punishment was completely mediated by anger, and intention

no longer predicted punishment. Moreover, these effects appear to be both reliable and strong. Evidence of their reliability comes from the fact that we found these results despite substantial differences among the vignettes (differing types of harm, perpetrators and victims, and differing levels of intentionality) and despite the fact that the 'unrelated studies' paradigm was successfully implemented (probes of demand awareness revealed that participants saw little or no connection between the two phases of the study).

### **Participants as intuitive prosecutors**

One could conclude from our results that social motives influence both how individuals perceive a situation of wrongdoing and how their ensuing emotions influence subsequent judgments. The particular motive that seems to be active here is the need to re-establish a sense of justice after it has failed. This finding provides some initial support for a relatively unexplored social motive: the need to enforce the norms and values underpinning the social order. We suggest that this goal might be activated in a situation very much like our experimental manipulation: when individuals both witness a serious transgression of societal norms and believe the transgressor to have escaped punishment. Under conditions like these, Tetlock (1992) has suggested that the fundamental attribution error may no longer be erroneous. It may be adaptive to simplify the process by which one attributes responsibility for harm by both (1) raising one's threshold for accepting situational accounts for conduct and (2) lowering one's threshold for making dispositional attributions and recommending harsh punishment.

Individuals whose goal is specifically to uphold the social order could be labeled 'intuitive prosecutors' who are upset by and want to punish wrongdoers. This metaphor provides a means for understanding our findings. First, one would expect intuitive prosecutors to get angry over norm violations and to be more likely to perceive future acts of wrongdoing as meriting punishment. Second, since intuitive prosecutors believe that people are getting away with violating the social order, they should also see little need to engage in an effortful attributional search to determine whether others are responsible for wrongdoing. Their prosecutorial mindset lowers their threshold for concluding that injustice has occurred (cf. Bodenhausen, Sheppard & Kramer, 1994; Frijda, 1988). Therefore, their focus shifts from appraising the situation to being in a state of punishment-readiness, whose aim is to halt further erosion of the social order.

This goal of punishing wrongdoers should not occur if there is no belief that the moral order is deteriorating (no belief that an injustice has occurred). Without the activation of the prosecutorial mindset, individuals may still get angry over wrongdoing, but their anger should not color the way they perceive future violations or influence their inclination to punish future transgressors. This may explain why there was no relationship between anger and punitiveness in the experimental condition in which it was ambiguous whether the perpetrator had been punished for the transgression. Intuitive prosecutors may need explicit 'situational warrant' or plausible justification for translating feelings of anger into social policy in the form of punitiveness. From a Durkheimian perspective, this situational warrant might well be the knowledge both that fundamental social norms have been violated and that these

violations have gone unpunished (Durkheim, 1893/1984). Lacking sufficient reason in the Justice Ambiguous condition, participants may have refrained from expressing their emotional outrage in the form of social sanctions.

The Intuitive Prosecutor mindset may influence judgment through a process similar to the notion of a 'moral zeigarnik effect'. For those participants who believed that justice was served, the hypothesized prosecutorial mindset was either never aroused, or aroused briefly and promptly closed. Therefore, these participants experienced some resolution or closure for the anger elicited by the crime-video. Even though negative feelings persisted, their anger did not color judgments of other events unrelated to the original transgression. The case had been closed, both legally and mentally. However, for those participants in the unpunished condition who did not experience this cognitive-emotional closure, anger did color judgments of other events.

The notion of an intuitive prosecutor mindset may also begin to explain the nature of the cross-over interaction. There were eight participants who failed to be angered by the assault-and-battery portrayed in the crime video and subsequently failed to punish the transgressors in the Unpunished condition. Though there were no significant mean-level differences in punitiveness between low-anger participants in the Punished and Unpunished conditions, this pattern still warrants some explanation. One possible explanation is that these participants in the Unpunished condition may have had a very different level (from most participants) for assessing outrageousness of conduct and/or an appropriate societal response. A second explanation, more in keeping with our theoretical approach, is that they may have perceived that there was no act of injustice. Perhaps the feedback that the perpetrator had been caught, but not subsequently punished, motivated a group of ultra-fairminded participants, who deeply believed in the legal system, to find potentially exculpatory or mitigating evidence to warrant the perpetrator 'getting off'. Therefore, (1) they did not get angry, and as a result, (2) the Intuitive Prosecutor mindset was never activated. Consequently, there was no impetus to punish future transgressors. This leads to a testable hypothesis: the most moral outrage, and therefore the greatest arousal of the Intuitive Prosecutor mindset, should result when participants learn that a perpetrator had never been apprehended, as opposed to a perpetrator who was caught but whom the legal system decided could not be punished for the deed.<sup>10</sup>

### Theoretical implications

Our findings demonstrate that although emotions can influence future judgments, they can also be 'disconnected' from future judgments. This is a very encouraging result: we are not at the whim of our emotional experiences. Perhaps what determines whether emotions persist and shape our perceptions are the values or cognitions linked to our emotions, such as beliefs about injustice. In our study, we believe that anger increased future punitiveness because of the accompanying salient belief that

<sup>10</sup>One could put forth a purely rational explanation: participants were more punitive because they perceived the world to be unjust. However, this interpretation does not receive empirical support because no participants saw a relationship between the anger-eliciting video and the negligence vignettes. If this were a *purely* rational process, participants would have reported that there was a connection between perceived injustice in the first study and punishment in the second.

justice had failed and must be restored. When this belief was disconnected from participants' emotional experience (through the knowledge that justice had been served or because issues of justice remained ambiguous), participants' anger did not 'carry over' to influence future judgments.

The intuitive-prosecutor hypothesis also complements existing theoretical analyses, such as Weiner's (1995) work on how attributions of responsibility precede and guide emotional arousal. He found that when individuals attribute individual suffering to a controllable, internal, and stable cause, they get angry and are unwilling to help those victims who caused their own fate. Extending those findings, we have focused on the reverse relationship: how emotional arousal precedes and elicits differential attributions of responsibility and blame. Another theory related to attributions for wrongdoing is Lerner's just world theory (Lerner & Miller, 1978). Whereas Lerner has found that individuals are more likely to re-assess past harmful acts and blame the victim when they cannot rectify injustice, we have found that, in the face of injustice, individuals are more likely to blame, not victims in the past, but perpetrators in the present. Lerner and colleagues have also examined how a past injustice can motivate, or discourage, future altruistic behavior (Braband & Lerner, 1974; Regan, 1971; Simmons & Lerner, 1968). Again, we focus on another pathway to re-establishing justice: punishing future transgressors. Finally, the present study also differs from Schwarz and Clore's affect-as-information theory (Schwarz, 1990; Schwarz & Clore, 1983). They have shown that individuals can misattribute their pre-existing mood and use it as a judgmental heuristic, essentially asking themselves 'How do I feel about this?' rather than engage in a time-consuming analysis for a specific judgment. Whereas the affect-as-information model focuses on unattributed global moods that are irrelevant to the judgment at hand, this study focused on discrete emotions (rather than global moods) that are arguably quite relevant to the judgment at hand—how anger over injustice influences future judgments about punishment. Moreover, in this study, the source of participants' anger was quite clear, and it would be difficult to argue that this anger was somehow 'misattributed' to the defendants' behavior.

Taken together, several theoretical implications emerge from these findings. First, they provide additional evidence that discrete emotional states—not just global moods—can influence perceptions of future, unrelated situations. Second, from Aristotle to Kant to modern-day theorists, many scholars have presumed that emotions are dysfunctional and cloud or bias judgment (Batson, Turk, Shaw & Klein, 1995). The prosecutorial perspective casts emotional carry-over in a more complicated light. From the standpoint of most normative theories of legal or attributional reasoning, the carry-over is inappropriate. Individuals should judge each case on its own merits and give careful thought to issues of intentionality and mitigation in determining punishment. By contrast, from a social functional standpoint, attributing responsibility and blame cannot be separated from the social and emotional context. This reminds us that such decisions are inherently social acts in which social goals and values matter and can even persist to influence future judgments.

#### ACKNOWLEDGEMENTS

We would like to give heartfelt thanks to Alan Schwartz, Melvin Lerner, David Schultz, Christina Maslach, and Dacher Keltner for their invaluable advice and

guidance in writing this paper. We would also like to recognize the effort and dedication of our undergraduate research assistants, without whom this research could not have been conducted: Katherine Burson, Lisa Guzman, Mary Catherine Hultz, and Kelly Schram.

## REFERENCES

- Aristotle (1962). *Nicomachean Ethics* (translation by M. Ostwald) Indianapolis: The Liberal Arts Press. (Original work c. 325 BC.)
- Barrett, K. C. & Campos, J. J. (1987). Perspectives on emotional development II: A functionalist approach to emotions. In J. D. Osofsky (Ed.), *Handbook of infant development* (2nd edn, pp. 555–578). New York: Wiley.
- Batson, C., Turk, C., Shaw, L. & Klein, T. (1995). Information function of empathic emotion: Learning that we value the other's welfare. *Journal of Personality and Social Psychology*, **68**(2), 300–313.
- Bodenhausen, G., Sheppard, L. & Kramer, G. (1994). Negative affect and social judgment: The different impact of anger and sadness. *European Journal of Social Psychology*, **24**, 45–62.
- Braband, J. & Lerner, M. (1974). 'A little time and effort:' Who deserves what from whom? *Personality & Social Psychology Bulletin*, **1**(1), 177–179.
- Durkheim, E. (1984). *The Division of Labor in Society* (translation by W. D. Hall) New York: Free Press. (Original work published 1893)
- Ekman, P. (1992). Facial expressions of emotion: New findings, new questions. *Psychological Science*, **3**, 34–38.
- Frank, R. (1988). *Passions within reason: The strategic role of the emotions*. New York: W. W. Norton.
- Freud, S. (1924). *A general introduction to psychoanalysis*. New York: Washington Square Press.
- Frijda, N. H. (1988). The laws of emotion. *American Psychologist*, **43**, 349–358.
- Frijda, H. & Mesquita, B. (1994). The social roles and functions of emotions. In S. Kitayama & H. Markus (Eds), *Emotion and culture: Empirical studies of mutual influence*. Washington, DC: APA.
- Gross, J. & Levenson, R. (1995). Emotion elicitation using films. *Cognition and Emotion*, **9**(1), 87–108.
- Haidt, J., Silvia, H. & Dias, M. (1993). Affect, culture, and morality, or is it wrong to eat your dog? *Journal of Personality and Social Psychology*, **65**(4), 613–628.
- Hamilton, V. & Sanders, J. (1981). The effect of roles and deeds on responsibility judgments: The normative structure of wrongdoing. *Social Psychology Quarterly*, **44**(3), 237–254.
- Johnson-Laird, P. N. & Oatley, K. (1992). Basic emotions, rationality, and folk theory. *Cognition & Emotion*, **6**, 201–223.
- Kant, I. (1900). *Critique of pure reason*. (translation by J. M. D. Meiklejohn) New York: Wiley. (Original work published 1781)
- Keltner, D., Ellsworth, P. & Edwards, K. (1993). Beyond simple pessimism: Effects of sadness and anger on social perception. *Journal of Personality and Social Psychology*, **64**(5), 740–752.
- Keltner, D. & Kring, A. (in press). Emotion, social function, and psychopathology. *Review of General Psychology*.
- Lazarus, R. S. (1991). *Emotion and adaptation*. New York: Oxford University Press.
- Lemerise, E. A. & Dodge, K. A. (1993). The development of anger and hostile interactions. In M. Lewis & J. M. Haviland (Eds), *Handbook of emotions* (pp. 537–546). New York: Guilford Press.

- Lerner, J. S., Goldberg, J. & Tetlock, P. (1998). Sober second thought: The effects of accountability, anger, and authoritarianism on attributions of responsibility. *Personality and Social Psychology Bulletin*, **24**, 563–574.
- Lerner, J. & Keltner, D. (in press). Beyond valence: toward a model of emotion-specific influences on judgment and choice. *Cognition and Emotion*.
- Lerner, M. & Miller, D. (1978). Just world research and the attribution process: Looking back and ahead. *Psychological Bulletin*, **85**, 1030–1051.
- Lutz, C. & White, G. M. (1986). The anthropology of emotions. *Annual Review of Anthropology*, **15**, 405–436.
- Nesse, R. M. (1990). Evolutionary explanations of emotions. *Human Nature*, **1**, 261–289.
- Parkinson, B. (1997). Untangling the appraisal–emotion connection. *Personality and Social Psychology Review*, **1**(1), 62–79.
- Quigley, B. & Tedeschi, J. (1996). Mediating effects of blame attributions on feelings of anger. *Personality and Social Psychology Bulletin*, **22**(12), 1280–1288.
- Regan, J. (1971). Guilt, perceived injustice, and altruistic behavior. *Journal of Personality and Social Psychology*, **18**(1), 124–132.
- Schwarz, N. (1990). Feelings as information: Informational and motivational functions of affective states. In E. T. Higgins & R. M. Sorrentino (Eds), *Handbook of motivation and cognition* (Vol. 2, pp. 527–561). New York: Guilford Press.
- Schwarz, N. & Clore, G. (1983). Mood, misattribution, and judgments of well-being: Informative and directive functions of affective states. *Journal of Personality and Social Psychology*, **45**(3), 513–523.
- Shaver, K. (1985). *The attribution of blame: Causality, responsibility, and blameworthiness*. New York: Springer-Verlag.
- Simon, H. A. (1967). Motivational and emotional controls of cognition. *Psychological Review*, **74**, 29–39.
- Simmons, C. & Lerner, M. (1968). Altruism as a search for justice. *Journal of Personality and Social Psychology*, **9**(3), 216–225.
- Smith, C. & Ellsworth, P. (1985). Patterns of cognitive appraisal in emotion. *Journal of Personality and Social Psychology*, **48**(4), 813–838.
- Solomon, R. (1990). *A passion for justice: Emotions and the origins of the social contract*. Reading, MA: Addison-Wesley.
- Solomon, R. (1994). Sympathy and vengeance: The role of the emotions in justice. In S. Van Goozen, N. Van de Poll & J. Sergeant (Eds), *Emotions: Essays on emotion theory*. Hillsdale, NJ: Erlbaum.
- Tavris, C. (1989). *Anger: The misunderstood emotion*. New York: Touchstone.
- Tetlock, P. (1992). Good judgment in international politics: Three psychological perspectives. *Political Psychology*, **13**(3), 517–539.
- Tooby, J. & Cosmides, L. (1990). The past explains the present: Emotional adaptations and the structure of ancestral environments. *Ethology & Sociobiology*, **11**, 375–424.
- Weiner & B (1995). *Judgments of responsibility: A foundation for a theory of social conduct*. New York: Guilford Press.

## APPENDIX: TEXT OF NEGLIGENCE HARM VIGNETTES

### Vignette I

You were on a motorscooter in the city when a car came out of a hidden intersection and ran into you. As a result of the incident, you broke several bones that required you use a wheelchair for 6 months. You later discovered that the car that ran into you had been a ‘runaway’: it was parked on the top of a steep hill and had rolled into the intersection without any possibility for you to get out of the way.

The person who parked the car, Bill, works for a valet parking service. He had been told that the car's parking brake was not working correctly, but he chose to park it at the top of a hill because it was the first space available. He was in a hurry to park the rest of the cars in line so he could get good tips from customers.

Bill usually enjoyed his job; he had been parking cars with this agency for many years. Bill has never received any procedural guidelines at all about how to park cars with faulty parking brakes.

### **Vignette II**

You were walking down a street that was undergoing construction when your foot fell through a hidden gap between two boards. Your ankle got caught in the gap as you fell forward, breaking both your ankle and your collar bone. You couldn't use crutches because of the broken collar bone, so you had to spend 6 months in a wheelchair. You later found out that Mark, a construction worker, chose to leave the job site before adequately checking the boards that were covering the sidewalk. He did not check the boards because his shift was over and he was told that the construction workers would no longer be paid any overtime, since this job was losing money.

The end-of-the-day guidelines Mark received provided absolutely no instructions about how to check the safety of the site before leaving. At the time of the incident, he was the safety manager, a job he had long looked forward to obtaining.

### **Vignette III**

Joe is a foreman on an assembly line. The company was trying to fill a large order and Joe did not want to stop the line. Joe had always been careful about safety procedures in the past. On this particular day, he noticed the safety guard was improperly attached but decided to do nothing until the end of the day. As a consequence, a worker lost two fingers.

### **Vignette IV**

Dave is a used car salesman. Dave had always been honest with his customers in the past. One particular day, on his own initiative, he sold a customer a used car which he knew to have a hidden defect. As a consequence, the customer has to spend an additional, unexpected \$1000 to repair the car.