
Acknowledgements
The authors thank Sara Svedlund for her assistance with data collection.

Funding
This research was supported by the Swedish Research Council (grant no. 2006-1959).

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Abstract

Previous research has demonstrated that anger increases the tendency to blame and punish others for harmful behaviors. This study investigated whether such attributions extend to judgments of criminal intent, and examined the mechanisms by which anger influences punitiveness. In an experiment, angry, sad, or neutral participants read about an ambiguously criminal behavior. As hypothesized, angry participants judged the behavior as more intentional and the perpetrator as having more causal control than did neutral participants, and were more willing to punish the wrongdoer. Sadness did not have a demonstrable effect on judgments, indicating a role of anger specifically, rather than general negative affect. Moreover, the effect of anger on punitiveness was mediated by perceived criminal intent but not by perceived causal control. Implications for legal judgments and theories of blame attribution are discussed.

Keywords: Anger, Attribution, Blame, Criminal intent, Emotion
On Being Angry and Punitive: How Anger Alters Perception of Criminal Intent

In many legal settings, people must deal with emotionally charged events. Although it is a core assumption in modern legality that the law admits only reason and stands above moral passions, researchers have recently begun to acknowledge the ways in which emotions may come to influence legal decisions (Bornstein & Wiener, 2009; Maroney, 2006). Examples include jurors or judges being affected by a victim’s poignant description of his or her suffering (Ask & Landström, 2010; Greene, 1999) or by gruesome graphic evidence illustrating the brutality of a violent offender (Kassin & Garfield, 1991; Thompson & Dennison, 2004). Most previous studies on the law–emotion interface, however, have not operationalized emotions in the most precise way, often treating them as a single concept or plainly distinguishing between positive and negative emotions (for notable exceptions, see Ask & Granhag, 2007; Skovran, Wiener, & Nichols, 2009). Given the very diverse influence of specific emotions on social judgments (Keltner, Ellsworth, & Edwards, 1993; Lerner & Keltner, 2000; Lerner & Tiedens, 2006), there is reason to expect a wide array of effects on legally relevant judgments. This study focuses on anger, an emotion particularly likely to arise in response to criminal events, and its influence on judgments of criminal intent, causal control, and punishment.

Most theoretical accounts of blaming and punishment consider perceptions of a wrongdoer’s intention and causal control as central to the attribution of blame (Alicke, 2000; Shaver, 1985; Tetlock, 2002; Weiner, 1995). Although intention and causal control often go hand in hand, a clear distinction can be made: Intention (or volitional control) refers to the extent to which a person’s behavior is performed purposely and knowingly, whereas causal control refers to the person’s actual impact on the harmful outcome (Alicke, 2000).¹ An individual who performs a harmful behavior on purpose, or who is in control of the process
that produces the outcome, is typically seen as more culpable and deserving of punishment (Lagnado & Channon, 2008). In this line of research, anger is considered an important motivational force behind the attribution process. For instance, according to Tetlock’s (2002) social functionalist framework, anger is associated with an ‘intuitive prosecutor’ mindset, which motivates individuals to detect and punish norm violators. Among other things, the mindset, once activated, causes people to set lower thresholds for attributing intentionality to wrongdoers. Tetlock (2002) argues that the enforcement of social rules poses a key adaptive problem to humans. Hence, a strong punitive motive as an intuitive response to perceived unfairness is regarded as functional, even if it sometimes leads to indiscriminate blaming and punishment (for related evolutionary arguments, see Cosmides & Tooby, 2005). Similarly, culpable control theory (Alicke, 2000) argues that anger over a harmful event activates the desire to punish the person who is responsible for the elicited negative affect. This may influence blaming directly, such that an angry juror might recommend a harsher penalty solely on the basis of his or her affective reaction to the crime. The influence may also occur through what Alicke (2000) termed indirect spontaneous evaluation effects, by which anger elicits a biased search for, and interpretation of, evidence of culpable control (e.g., intention, causal control), which is in turn used to support the blaming and punishment of the wrongdoer.

The results of empirical studies investigating the relationship between anger and blame attributions are consistent with the theoretical assumptions above. Individuals who feel angry, as opposed to sad or neutral, show a stronger tendency to blame persons rather than situations for negative events (Keltner, Ellsworth, et al., 1993), and are more willing to punish negligent and harmful behaviors (Goldberg, Lerner, & Tetlock, 1999; Lerner, Goldberg, & Tetlock, 1998). The study of Goldberg et al. (1999) serves as a nice illustration. They had participants watch a video of a clear act of wrongdoing, and told participants either that the
wrongdoer had been punished, that he had escaped punishment, or gave no information about punishment. Subsequently, participants read and evaluated a set of vignettes describing ambiguously negligent acts with harmful consequences. The amount of anger experienced when watching the video significantly predicted participants’ punitiveness towards the negligent actors in the vignettes, but only for participants who thought that the wrongdoer in the video had escaped punishment and those who had not received any information regarding punishment. For participants who thought that the initial wrongdoer had been punished, increased anger was not associated with harsher punishment. These results lend support to the assumption that anger activates the desire to punish, and that this motivation diminishes when justice has been administered to the perceived cause of the anger (Tetlock, 2002).

The present research differs from previous demonstrations in several important regards. First, whereas earlier research has focused on judgments of everyday social behavior or negligence, the present study examines judgments of a more active form of norm violation—the intentional commission of crime. One of the court’s biggest challenges in criminal trials is to judge mens rea—whether or not an act was committed with a “guilty mind” (Malle & Nelson, 2003). For instance, a defendant whose actions destroy a valuable object cannot be convicted for vandalism unless it is found that he or she actually intended to damage the property in question. In the absence of conclusive evidence, establishing criminal intent is left to the subjective judgment of individual decision makers. Moreover, the defense routinely claims that the defendant lacked premeditation and intent as a strategy to negotiate a lighter sentence. The high degree of ambiguity should make assessments of criminal intent susceptible to a number of extralegal influences, including feelings of anger.

Furthermore, earlier studies demonstrating a link between anger and punitiveness (Goldberg, et al., 1999; Lerner, et al., 1998) did not use other specific emotions as a comparison. Hence, it has not been established whether it is anger specifically, or negative
affect in general, that causes the increased willingness to punish wrongdoers. This is a significant gap in knowledge, which relates to the assumption of appraisal theories that different negative emotions can have very specific and distinct influences on cognition (Lerner & Keltner, 2000; Smith & Ellsworth, 1985). Moreover, Goldberg et al. (1999) did not include a control condition, but used naturally occurring variations in anger responses to a stimulus video as a predictor of punitiveness. Hence, it is not clear whether their demonstrated relationship can be attributed to situationally induced anger or to preexisting individual differences in appraisals and the propensity to experience anger (Kuppens, Van Mechelen, Smits, De Boeck, & Ceulemans, 2007). Finally, the actual cognitive mechanism underlying the anger–punitiveness link has received little empirical attention. From an appraisal-theory perspective, it would be expected that the explanation for the increased punitiveness lies in the potential of anger to enhance attributions of events to the internal, personal control of the actor (Keltner, Ellsworth, et al., 1993). A similar prediction follows from culpable control theory (Alicke, 2000), although it ascribes the altered perception of intention and causal control to motivational forces rather than to the temporary accessibility of cognitive appraisals. However, the mediational relationship suggested by both theories has never been tested empirically.

Participants in the present study were first placed in an angry, sad, or neutral emotional state. Subsequently, they were presented with a criminal case where a man was accused of embezzlement after failing to return a large sum of money to its rightful owner. We expected that angry individuals would be more likely than neutral individuals to view the man’s behavior as intentional and the man as having causal control of the outcome, and be more willing to punish the man for his harmful behavior. As the hypothesized effects are thought to be due to anger specifically, and not negative affect in general, we expected that sad participants’ judgments would not differ from those of neutral participants. We also
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wanted to test the assumption of culpable control theory (Alicke, 2000) that anger can influence punitiveness indirectly, by altering perceptions of evidence indicative of a perpetrator’s intent and causal control. We propose that this indirect influence occurs even when the anger is incidental and not directly relevant to the judged event. Thus, perceptions of intention and causal control should mediate the effect of anger on punitiveness.

Method

Participants and Design

One hundred and forty-three undergraduate students (75% female), ranging in age from 17 to 47 years ($M = 26.53, SD = 6.70$), at a large Swedish university participated in the study in exchange for monetary reimbursement. Participants were randomly assigned to one of three emotion conditions (angry, sad, or neutral).

Procedure

Participants were told that they would participate in two separate studies. The first task, described as an investigation of “memory for experiences”, served as emotion induction procedure. Participants were asked to read a vignette describing a social event, and to imagine as vividly as possible how they would experience the situation if they were in the role of the protagonist (Keltner, Ellsworth, et al., 1993). In the angry condition, the vignette described how the protagonist was treated unfairly by her employer, and how the employer took credit for the success of the business while the protagonist had to work very hard to compensate for the employer’s sloppy management. In the sad condition, the protagonist described how her grandfather had died of cancer, how close they had been, and how sad she was that she couldn’t be there with him when he passed away. In the neutral condition, the protagonist was said to be a participant in a previous study and described the mundane events that had happened to her earlier that day. Participants were informed that they would later be asked questions about their experience of the described event.
The second task was described as a study investigating “judgments of social behavior”. Participants read a vignette about a man, Jakob, suspected of embezzlement after having withheld money from the local sports club where he was the treasurer. Jakob had withdrawn a large sum of money from the club’s account to make payments for renovations of the club premises. After the renovations were finished, however, the club president discovered that Jakob had failed to return the money that was left over (approx. $1,000). Jakob claimed that he had simply forgotten to return the money, and that he had no intention of keeping it. This particular scenario was chosen because it is a prototypical representation of legal cases where the determination of criminal intent is both problematic and pivotal. Pretesting confirmed that the scenario was indeed perceived as ambiguous concerning Jakob’s volitional control. Moreover, since the depicted transgression is non-violent and only moderately harmful, it is unlikely to evoke strong emotional reactions which would interfere with the experimental manipulation of emotions.

After reading the vignette, participants rated how intentional Jakob’s behavior seemed (“How likely is it that Jakob intended to keep the money?”, “How likely is it that Jakob simply forgot to return the money?”, “How likely is it that Jakob would have returned the money if no one else had discovered that it was missing?”; α = .70), how much causal control Jakob had of the event (“To what extent was Jakob’s failure to return the money caused by factors that he could control?”, “To what extent was Jakob’s failure to return the money caused by external factors beyond his control?”, “To what extent has Jakob put himself in the situation?”; α = .73), and how much punishment he deserved (“Do you think Jakob should be punished for his actions?”, “How severe a punishment should Jakob get?”, “Should Jakob lose his position as treasurer of the club?”, “Should Jakob be prosecuted for embezzlement?”; α = .77). All ratings were made on scales of 1 – 7.
Finally, participants completed a manipulation check for the emotion induction, described as follow-up questions for the study on “memory for experiences”. They were asked to rate the extent to which they experienced each of 16 feelings (0 = “not at all”, 8 = “extremely”) when imagining being in the role of the protagonist in the first vignette. The items related to anger (“angry”, “mad”; $\alpha = .91$) and sadness (“sad”, “depressed”; $\alpha = .88$) were used to evaluate the success of our manipulation. These ratings were collected at the end of the experimental session, rather than immediately after the emotion induction, since labeling emotions has been found to reduce their influence on subsequent judgments (Keltner, Locke, & Audrain, 1993).

After completing the experiment, participants were probed for suspicion about the true nature of the study using a funneled debriefing procedure (Bargh & Chartrand, 2000). Importantly, none of the participants correctly identified the emotion induction task as an attempt to influence their judgments on the subsequent task, indicating that any effects of emotion on the target judgments occurred without participants’ conscious awareness.

**Results**

*Initial Analyses*

Analyses of the emotion ratings confirmed that our experimental manipulation was successful. ANOVAs indicated that the effect of emotion condition was significant for ratings of both anger, $F(2, 140) = 80.84, p < .001, \eta^2 = .54$, and sadness, $F(2, 140) = 132.58, p < .001, \eta^2 = .65$. As expected, participants in the angry condition reported significantly more anger ($M = 5.30, SD = 2.02$) than did participants in the sad ($M = 1.86, SD = 1.91$) and the neutral ($M = 0.92, SD = 1.19$) conditions, both $ps < .001$ (Bonferroni). Also as expected, participants in the sad condition reported significantly more sadness ($M = 5.91, SD = 1.58$) than did participants in the angry ($M = 3.38, SD = 1.89$) and the neutral ($M = 0.62, SD = 1.22$) conditions, both $ps < .001$. 
**Target Ratings**

Table 1 presents the means and standard deviations of the ratings of the target vignette. An ANOVA of the criminal intent ratings revealed a significant effect of emotion condition, $F(2, 140) = 3.40, p < .05, \eta^2 = .046$. As predicted, angry participants perceived the target’s behavior as more intentional than did neutral participants, $p < .05$, whereas the ratings of sad and neutral participants did not differ from each other, $p = .98$.

Emotion condition had a significant effect also on participants’ perception of the target’s causal control, $F(2, 140) = 3.17, p < .05, \eta^2 = .043$. Consistent with our hypothesis, angry participants attributed higher causal control to the target than did neutral participants, $p < .05$. Again, the ratings of sad and neutral participants did not differ from each other, $p = .51$.

Finally, emotion condition had the predicted influence on participants’ punitiveness, $F(2, 139) = 5.93, p < .01, \eta^2 = .079$. Angry participants tended to be more punitive towards the target than did neutral participants, $p < .05$, whereas sad and neutral participants did not differ from each other, $p = .99$.

-- Table 1 here --

**Mediation Analysis**

A mediation analysis was conducted to examine the hypothesis that anger increases punitiveness indirectly, by altering perceptions of criminal intent and causal control. Because our hypothesis targeted the effect of anger specifically, participants in the sadness condition were excluded from the analysis. First, a series of regression analyses were run with emotion condition as the independent variable, punitiveness as the dependent variable, and perceived criminal intent and causal control as the mediators. Replicating the main analyses, emotion was a significant predictor of punitiveness ($B = .70, SE = .25, p < .01$) and of both the proposed mediators (criminal intent: $B = .58, SE = .25, p < .05$; causal control: $B = .46, SE = .18, p < .05$). Our mediators were in turn positively related to punitiveness, though
significantly so only for criminal intent ($B = .59, SE = .09, p < .001$) and not for causal control ($B = .13, SE = .11, p = .25$). Finally, when the proposed mediators were included in the regression analysis, the direct effect of emotion on punitiveness dropped to non-significance ($B = .30, SE = .21, p = .16$).

As the critical test of our mediation hypothesis, we employed a bootstrapping method recommended by Preacher and Hayes (2008). Using 10,000 bootstrap re-samples and a 95% confidence level, we obtained confidence intervals for the total indirect effect, as well as for both proposed mediators separately. The confidence intervals for the total indirect effect (CI = .10 – .75) and for criminal intent (CI = .07 – .66) did not include zero, whereas the confidence interval for causal control did so (CI = -.03 – .24). Thus, perceived criminal intent significantly mediated the effect of anger on punitiveness ($p < .05$), whereas perceived causal control did not.

**Discussion**

The results of this study show that anger has the potential to enhance perceptions of intent and causal control behind harmful behaviors, and to increase punitiveness towards the perpetrator. Consistent with appraisal theories of emotions (Lerner & Keltner, 2000; Smith & Ellsworth, 1985), we found that these effects are due to anger specifically, as opposed to negative affect in general. Importantly, our findings add to the literature by showing that the effects of anger extend beyond judgments of everyday behavior (Keltner, Ellsworth, et al., 1993; Quigley & Tedeschi, 1996) or ambiguous acts of negligence (Goldberg, et al., 1999) to include assessments of premeditated criminal behavior. This type of judgment is made by jurors and judges in most criminal trials and, thus, our findings have implications for decisions with considerable consequences for crime victims, defendants, and others involved in the aftermath of crime.
Our experiment provided a straightforward test of the proposed indirect spontaneous evaluation effect featured in culpable control theory (Alicke, 2000). In line with Alicke’s theorizing, we found that anger influenced punitiveness indirectly, by altering perceptions of the perpetrator’s volitional control over the event. There was no evidence of a direct anger–punitiveness link when perceived intention and causal control were controlled for. It is notable that this effect took place even though participants’ emotional state was completely incidental to the evaluated target event. This strongly suggests that the experience of anger activates an ‘intuitive prosecutor’ mindset which may influence judgments in subsequent unrelated situations (Goldberg, et al., 1999).

In this study, perceived intention, but not perceived causal control, came out as a significant mediator. Interestingly, the current legislative stance in most Western countries emphasizes intentionality rather than causal control when distinguishing between guilty and innocent people. The concept of mens rea—a definitive factor in establishing criminal guilt—in itself implies conscious thought and intent. Although research indicates that folk concepts of intentionality differ somewhat from established legal definitions, for most people it denotes some sort of prior thinking, will, and pre-planning behind action (Malle & Nelson, 2003). Thus, believing that someone committed a crime with a “guilty mind” involves perceiving that the person had the desire, purpose, and conscious awareness of doing so. It should be noted that nature of our target scenario may have precluded the detection of perceived causal control as a mediator of the anger–punitiveness link. There were no indications that the wrongdoer’s causal control would have been restricted by external circumstances, and participants’ high ratings of causal control across conditions suggest that there may have been limited latitude for interpretation in this regard. On the other hand, the magnitude of the effect of emotion on causal control ratings ($\eta^2 = .043$) was comparable to that found for ratings of
criminal intent ($\eta^2 = .046$), and thus it seems unlikely that the lack of mediation through causal control was due to a restricted range of data.

Taken together, the present results confirm the hypothesis of appraisal theories that emotions increase the accessibility of their component appraisals, which may affect subsequent judgments, even those unrelated to the source of the emotion (Keltner, Ellsworth, et al., 1993). Moreover, our findings go one step further in showing how temporary variations in appraisal accessibility can indirectly affect secondary judgments with important applied consequences. Hence, while demonstrating the relevance of appraisal theory to the legal domain, the results show on a more general level how application of the theory to a new host of issues may contribute to its development. Although sadness was included in this study mainly as a valid comparison to demonstrate the unique influence of anger as opposed to negative affect, it is worth noting that some interesting predictions regarding the role of sadness follow from appraisal theory. Given that one of the component appraisals of sadness is a focus on situational, as opposed to personal, causes of events (Smith & Ellsworth, 1985), one might expect that sad participants in this study would attribute less causal control to the wrongdoer and, hence, become less punitive than neutral participants. A look at the results, however, shows that participants did not react this way to the sadness manipulation. Again, the fact that the target scenario did not suggest any situational circumstances that may have reduced the wrongdoer’s causal control may be responsible for this null finding; the use of a scenario that presents such circumstances would provide a stronger test of this hypothesis.

Because our target scenario related to a specific type of white-collar crime, it is necessary to investigate whether our findings would generalize to other forms of criminal offences. For instance, would the effect of anger be similar if observers were presented with physically violent behavior or events with more severe consequences? In assault or homicide cases where incriminating evidence exists, the issue of dispute is often not whether the
defendant intended to harm the victim, but rather the extent of harm that was intended or anticipated (cf. volitional outcome control; Alicke, 2000). For instance, the legal distinction between murder and manslaughter rests on the presence or absence of the intention to kill, and, thus, requires jurors and judges to assess the defendant’s volitional control of the outcome. Researchers should be aware, however, that studying events which are, in and of themselves, emotionally provoking introduces possible interference with experimental manipulations of emotions. In the present study, we avoided this issue by using only a moderately harmful crime as our stimulus scenario.

This research has demonstrated the need to take into account the effects of emotions on social judgments when trying to understand how people assign legal responsibility and punishment. Although such considerations have begun to emerge in the legal literature (Bornstein & Wiener, 2009; Feigenson & Park, 2006), attempts to examine the causal role of specific emotions in legal judgments are still rare. Our findings have shed light on some of the mechanisms involved, underlined the necessity for further exploration of the topic, and, ultimately, illustrated how the intuitive prosecutor may enter the courtroom.
References


Footnotes

1 Alicke (2000) identified a third control component—volitional outcome control—which refers to whether the event’s consequences were desired and foreseen. This aspect of culpable control is, however, beyond the scope of this article.

2 Corresponding analyses using the sadness manipulation as the independent variable were conducted, but yielded no significant mediated effects.
Table 1

**Attributions of Target Behavior and Punitiveness as a Function of Emotion Condition**

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<th>Emotion</th>
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<tbody>
<tr>
<td></td>
<td>Anger</td>
<td>Sadness</td>
<td>Neutral</td>
<td></td>
</tr>
<tr>
<td>Criminal intent</td>
<td>4.52&lt;sub&gt;a&lt;/sub&gt; (1.14)</td>
<td>4.11&lt;sub&gt;a,b&lt;/sub&gt; (1.21)</td>
<td>3.87&lt;sub&gt;b&lt;/sub&gt; (1.29)</td>
<td></td>
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<tr>
<td>Causal control</td>
<td>6.23&lt;sub&gt;a&lt;/sub&gt; (0.76)</td>
<td>6.00&lt;sub&gt;a,b&lt;/sub&gt; (1.04)</td>
<td>5.73&lt;sub&gt;b&lt;/sub&gt; (1.02)</td>
<td></td>
</tr>
<tr>
<td>Punitiveness</td>
<td>3.80&lt;sub&gt;a&lt;/sub&gt; (0.95)</td>
<td>3.09&lt;sub&gt;b&lt;/sub&gt; (1.10)</td>
<td>3.09&lt;sub&gt;b&lt;/sub&gt; (1.38)</td>
<td></td>
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*Note.* Means with different subscripts differ at \( p < .05 \) by post-hoc comparisons (Bonferroni). Numbers in parentheses represent standard deviations.