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Feeling and Believing: The Influence of Emotion on Trust

Jennifer R. Dunn and Maurice E. Schweitzer
University of Pennsylvania

The authors report results from 5 experiments that describe the influence of emotional states on trust. They found that incidental emotions significantly influence trust in unrelated settings. Happiness and gratitude—emotions with positive valence—increase trust, and anger—an emotion with negative valence—decreases trust. Specifically, they found that emotions characterized by other-person control (anger and gratitude) and weak control appraisals (happiness) influence trust significantly more than emotions characterized by personal control (pride and guilt) or situational control (sadness). These findings suggest that emotions are more likely to be misattributed when the appraisals of the emotion are consistent with the judgment task than when the appraisals of the emotion are inconsistent with the judgment task. Emotions do not influence trust when individuals are aware of the source of their emotions or when individuals are very familiar with the trustee.

Keywords: emotion, trust, anger, happiness, affect

Trust is essential for effective management, effective government, and effective social systems (Bazerman, 1994; Donaldson, 2001). Yet, despite its importance, fundamental questions remain about how trust actually operates. Although theoretical work has identified a number of factors likely to influence trust (Lewicki & Wiethoff, 2000; Mayer, Davis, & Schoorman, 1995), recent experimental work has begun to challenge commonly held assumptions about trust (Glaeser, Laibson, Scheinkman, & Soutter, 2000; Pillutla, Malhotra, & Murnighan, 2003; Schweitzer, Hershey, & Bradlow, 2004).

In this article, we explore the influence of emotions on trust. This work addresses an important gap in the trust literature. Prior theoretical (see Jones & George, 1998, for an exception) and experimental work has largely ignored the role of emotional states in trust. This omission is striking because many important trust decisions are made in affect-rich contexts. This is true for contexts in which the decision itself is affect rich (e.g., the decision of which nursing home to trust with the care of your parent) as well as for contexts in which incidental emotions (e.g., frustration stemming from a prior conference call) influence an otherwise unrelated decision.

Jennifer R. Dunn and Maurice E. Schweitzer, Department of Operations and Information Management, The Wharton School, University of Pennsylvania.

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Correspondence concerning this article should be addressed to Jennifer R. Dunn, Department of Operations and Information Management, The Wharton School, University of Pennsylvania, Jon M. Huntsman Hall, Suite 500, 3730 Walnut Street, Philadelphia, PA 19104. E-mail: jrdunn@wharton.upenn.edu

Interpersonal Trust

Defining Trust

Trust has been studied across several disciplines, including economics (Williamson, 1993), sociology (Gambetta, 1988), and psychology (Rotter, 1971). Across these disciplines, different definitions of trust have been developed, and in this article, we define trust by adapting a definition developed by Rousseau, Sitkin, Burt, and Camerer (1998) that integrates a multidisciplinary approach to trust: Trust is the willingness to accept vulnerability based upon positive expectations about another's behavior.

In general, trust can exist between individuals, groups, and institutions and can represent either a global belief in humanity or a situation-specific and/or trustee-specific attitude (Butler, 1991). In this article, we focus on dyadic-level interpersonal trust.

Expectations of Trustworthiness

Prior work has conceptualized trust as a product of two factors: an individual's propensity to trust and an individual's expectations about a trustee's future behavior (Mayer et al., 1995). An individual's propensity to trust is one's general willingness to rely on others in situations in which opportunism is possible. Individual characteristics, such as personality and developmental history, influence an individual's propensity to trust (Mayer et al., 1995; Rotter, 1971).

In this article, we focus on an individual's expectations about a trustee's future behavior. Prior work has suggested that expectations of trustworthiness are influenced by trustee attributes such as ability, integrity, and benevolence (e.g., Butler, 1991; Mayer et al., 1995). These attributes are typically inferred from past experience with the trustee or from information a truster has about the trustee's reputation and intentions (Cook & Wall, 1980; Lewicki & Wiethoff, 2000). What is important to note is that trusters must rely on their perceptions of trustee characteristics to gauge trustworthiness. In this article, we describe how trusters' incidental emotions—emotions unrelated to the trustee—influence these per-

ceptions of trustworthiness. This approach offers a conservative test of the influence emotions are likely to exert on trust in general.

Affect–Cognition

Previous research has identified significant links between affective states (moods and emotions) and normatively unrelated judgments (see Forgas & George, 2001; Isen & Baron, 1991, for reviews). The specific relationship between affective states and judgment depends on a number of important factors, such as the nature of information processing (Forgas, 1995; Hirt, Levine, McDonald, Melton, & Martin, 1997) and the criteria used for an evaluation (Martin, Abend, Sedikides, & Green, 1997). Although prior research has primarily examined positive and negative moods, researchers have also found that specific emotional states influence unrelated judgments. This work has found that valence alone (i.e., positive–negative feelings) cannot explain the relationship between affective states and unrelated judgments (e.g., DeSteno, Petty, Wegener, & Rucker, 2000; Keltner, Ellsworth, & Edwards, 1993; Tiedens & Linton, 2001).

Mood Effects on Judgments: Affect as Information and Affect Infusion Models

A number of mood models have been advanced. For example, Bower (1981) has suggested that moods influence judgment through biased retrieval of mood-congruent information from memory; Martin, Ward, Achee, and Wyer (1993) have suggested that the relationship between mood and judgment depends on an individual's interpretation of his or her own mood; and mood maintenance models have suggested that people engage in specific actions because they are motivated to maintain or repair a current mood state (e.g., Isen, Nygren, & Ashby, 1988; Manucia, Baumann, & Cialdini, 1984).

In this article, we develop our theoretical framework with respect to the affect-as-information model (Schwarz & Clore, 1988) and the affect infusion model (Forgas, 1995). These two mood models have received substantial empirical support (see Forgas, 2001; Schwarz & Clore, 2003). The affect-as-information model suggests that people often misattribute their mood to the judgment at hand. Specifically, Schwarz and Clore (1988) have argued that when people make evaluative judgments, they unconsciously ask themselves "how do I feel about (the judgment)?" In responding to this question, a person may use the valence of his or her unrelated feelings to inform the judgment. This misattribution process is more likely to occur when the original cause of the mood is not salient. For example, when Schwarz and Clore (1983) asked people to rate their life satisfaction, they found that people provided higher ratings of life satisfaction on sunny days than they did on rainy days. When the authors prompted people to attribute their mood to the weather before making their judgment, however, they found no significant difference in ratings between people who provided ratings on sunny and rainy days. Schwarz (1990) postulates that the affect-as-information heuristic is most likely to influence judgments that are complex or affective in nature (Schwarz, 1990). Notably, in many cases, trust judgments are both complex and affective in nature (Johnson-George & Swap, 1982; McAllister, 1995; Williams, 2001).

The affect infusion model identifies the type of cognitive processing required for a judgment task as a key moderator of the relationship between mood and judgment. According to this model, affect will not influence judgment when people engage in either direct access processing (in which they retrieve preformed judgments) or motivated thinking. Affect, however, may influence judgment when people use open-ended processing strategies, such as heuristic processing or substantive processing. When people engage in heuristic processing they are likely to make judgments consistent with the affect-as-information model. When people engage in substantive processing, their feelings are likely to influence the way in which they process information (e.g., the type of information people retrieve from memory and the type of new information to which people attend).

The affect infusion model suggests that different types of judgments will be differentially influenced by moods. In this work, we consider how different types of trust judgments might be differentially influenced by incidental emotions. One factor likely to moderate the relationship between emotions and trust is the familiarity of the trustee. When the truster has little history with the trustee (e.g., an acquaintance), he or she will use heuristic information processing to form a trust judgment; as a result, trust judgments of unfamiliar trustees are frequently influenced by the affect-as-information heuristic. When the trustee is well known to the truster, trust judgments are likely to involve either direct access or substantive information processing. A truster may automatically associate a close friend with high levels of trust without thinking of specific evidence that supports or refutes the judgment (direct access processing). In this case, incidental emotions are likely to exert little influence on trust judgments. There may also be cases in which trust judgments are formed for familiar people who have acted inconsistently in the past. In such cases, the truster will engage in substantive processing and incidental emotions may influence the information recalled and attended to in forming the judgment. In this article, we examine the influence of emotion on trust judgments of unfamiliar acquaintances and highly familiar friends. We expect incidental emotions to influence trust judgments of acquaintances more than trust judgments of close friends.

Emotions and Judgments

Most of the affect–cognition literature has explored how moods (positive or negative feelings) influence subsequent judgments. Relatively little research has considered how specific emotions (e.g., guilt) influence subsequent judgments. Unlike moods, emotional states are typically shorter in duration, more intense, and characterized by a number of different cognitive appraisals (Schwarz, 1990; Smith & Ellsworth, 1985). A cognitive appraisal is an assessment that a person makes regarding the current situation he or she faces. For example, an individual assesses the appraisal of valence by determining whether the current situation is positive or negative.

Emotions are more complex than moods (Smith & Ellsworth, 1985). Emotions can be characterized not only by the primary appraisal of valence but also by a number of secondary appraisals, including perceptions of certainty (e.g., how certain am I about the situation?), required attention and effort (e.g., how much attention do I need to devote to this situation?), and control over the outcome (e.g., to what extent am I, another person, or exogenous

factors responsible for this situation?). Although all of these secondary appraisals are important for understanding emotions, prior work has identified the secondary appraisal of control as particularly important in distinguishing emotional states (Ellsworth & Smith, 1988; Frijda, 1993; Izard, 1992; Lazarus, 1991; Smith & Ellsworth, 1985; Weiner, 1993). In this work, we consider distinctions among emotions according to the secondary appraisal of control. For example, the emotions of anger, sadness, and guilt are all negative in valence, but they differ with respect to the appraisal of control. Anger is characterized by high other-person control, sadness by high situational control, and guilt by high personal control. That is, when assessing a negative situation, people typically feel angry if they perceive another person to be responsible, sad if they perceive nonhuman factors (e.g., illness or natural disaster) to be responsible, and guilty if they perceive themselves to be responsible.

Prior work has found that emotions with the same valence, but different control appraisals, have different effects on judgment (Bodenhausen, Sheppard, & Kramer, 1994; DeSteno et al., 2000; Keltner, Ellsworth & Edwards, 1993; Lerner & Keltner, 2000, 2001). For example, Lerner and Keltner (2001) found that fear and anger, two emotions with negative valence, had significantly different effects on risk assessments. They found that people feeling angry had more optimistic risk assessments than did people feeling fear and that different appraisals of control mediated this relationship.

Some scholars have postulated that moods are more likely to influence judgments than are emotions (Forgas & George, 2001; Schwarz, 1990). These scholars have argued that emotions are more likely to be properly attributed to their original cause than are moods. Other work, however, has demonstrated that emotions that have a known, but not salient, cause exert significant influence over unrelated judgments. For example, Gasper and Clore (1998) found that state anxiety from a known cause (upcoming final exams) influenced judgment when the cause of the anxiety was not salient but did not influence judgment when the cause of the anxiety was highlighted. In many cases, individuals may correctly attribute their emotional state initially, but misattribute it later, when the cause of their emotional feelings is less proximal. For example, a manager may become angry during a difficult meeting with a client. On leaving the meeting, the manager may still feel angry, but the cause of the anger may no longer be salient. In this example, the manager may misattribute his or her feelings when judging a subordinate in an unrelated context.

Overview of Present Research

In this work, we explored the influence of discrete emotions on unrelated trust judgments. We focused on dyadic-level trust judgments—judgments that reflect feelings and beliefs about another person—and we considered both the valence and the control appraisals of several different emotions: anger, happiness, sadness, gratitude, pride, and guilt.

Consistent with the affect-as-information model, we expected misattributed emotions to influence trust in the direction of the emotion's valence. In particular, we expected gratitude and happiness to increase trust and we expected anger to decrease trust. We also expected the salience of the emotion to moderate this relationship. By making the cause of emotion salient, we expected individuals to attribute their emotional state correctly and not to be influenced by their emotional state.

We also expected the type of information processing required for the trust judgment to moderate the relationship between incidental emotions and trust. Consistent with Forgas's affect infusion model, we expected familiarity with a trustee to moderate the influence of emotional states on trust. When people judge trust in acquaintances, we expect them to use a heuristic information-processing strategy and to be influenced by the valence of their emotional state. When they judge familiar trustees, however, we expect them to use a direct access processing strategy and not to be influenced by the valence of their emotional state.

Trust judgments are made about another person, and in this work, we considered the role of control appraisals in moderating the influence of the valence of an emotion on unrelated trust judgments. Emotions are multidimensional constructs, and we expected the secondary appraisals to convey information and to influence the extent to which emotions are misattributed. Schwarz and Clore (1988) have postulated that when people make complex, affective judgments they ask themselves, "How do I feel about (the judgment)?"

In their experiments, Schwarz and Clore (1988) considered moods, characterized by valence, and they suggest that the mood's valence (positive or negative) influences the response (e.g., "I feel good"). When experiencing an emotion, the answer to the question "How do I feel about (the judgment)?" may be more complicated. In particular, when individuals answer this question, their response may be influenced by both the valence and the secondary appraisals of the emotion. For example, when judging a subordinate, a manager's incidental anger (e.g., anger with a client in an unrelated setting) may prompt him or her to develop a response characterized by both the valence and the other-control appraisal of the emotion (e.g., "I have bad feelings about somebody other than myself"). If the source of the emotion (the client) is not salient, the manager may consider this negative other-person feeling to be informative in judging the subordinate. Conversely, a manager who feels guilty about something he or she has done may answer the same question with "I have bad feelings about *myself*" and consider those feelings to be less relevant for an other-person judgment. That is, we expected individuals to be more likely to misattribute the valence of an emotion to an unrelated judgment when the dominant secondary appraisal of the emotion is consistent with the judgment task. In our case, we expected incidental emotions with other-person control appraisals (e.g., anger and gratitude) to be more frequently misattributed for judgments about other people than are emotions with personal or situational control appraisals (e.g., guilt and sadness, respectively).

Our predictions contrast those of a valence-centric model, which would predict that all negative-valence emotions would decrease trust and that all positive-valence emotions would increase trust. We also expected emotions without strong control appraisals (e.g., happiness) to be misattributed because these emotions lack constraining secondary appraisals of control (e.g., happy feelings may be caused by oneself, another person, or a situation).

We conducted five studies to explore the relationship between incidental emotions and trust. In each study, we induced incidental emotions and subsequently measured trust in a specific trustee. In the first study, we considered happiness, sadness, and anger—three common emotions that vary in cognitive appraisals of control. In

the second study, we ruled out priming as an explanation for our results. In our third study, we considered four emotions that vary along valence (positive–negative) and control (personal–other) appraisals and tested whether appraisals of control mediate the relationship between emotion and trust. In the fourth study, we tested whether highlighting the emotion's cause eliminates the influence of the emotion. Finally, in the fifth study, we examined the moderating role of familiarity in influencing emotion. In this study, we compared gratitude and anger with a neutral condition for trustees who were either familiar or unfamiliar.

Study 1

In this study, we consider the influence of happiness, sadness, and anger on trust in an unfamiliar coworker. These three emotions have different valences, different appraisals of control, and often are used to study the effects of positive and negative moods (e.g., Forgas, 1998; Park & Banaji, 2000). Happiness is an emotion with positive valence, and both sadness and anger are emotions with negative valence. According to Smith and Ellsworth's (1985) analysis, happiness lacks strong appraisals of control, sadness has a strong appraisal of situational control, and anger has a strong appraisal of other-person control.

We expected incidental happiness to increase trust because happiness is a positive valence emotion with a weak appraisal of control. In particular, because happiness has a weak appraisal of control, we expected the positive valence of happiness to be misattributed to targets. In contrast, we expected incidental sadness to have little influence on trust because sadness is an emotion with a strong appraisal of situational control. As a result, we did not expect the negative valence of sadness to be misattributed to judgments of another person. We expected anger to reduce trust because anger is a negative valence emotion with a strong appraisal of other-person control. Because of the strong appraisal of other-person control, we expected the negative valence of anger to be frequently misattributed to judgments about other people.

Method

Participants. We recruited participants from a large Northeastern train station to complete one of six versions of a survey in exchange for a candy bar. A total of 120 participants, evenly divided across the six conditions, completed the survey. An additional 24 participants started the survey, but were unable to complete it (e.g., they ran out of time and had to catch a train). The respondents' average age was 36.4 years ($SD = 17.2$), and respondents were evenly split between genders (51% male). Most respondents were single (57%), most were employed (79%), and almost two thirds (64%) had completed at least a 4-year college degree.

Design. Participants were randomly assigned to one of six versions of the survey from a 2×3 design. We used three different emotion conditions (anger, happiness, sadness) and two order conditions. We manipulated whether participants selected a trustee (a) before beginning the emotion induction exercise or (b) after completing the emotion induction exercise. This manipulation enabled us to disentangle the influence emotion might have on the selection of a trustee from the influence emotion had on trust.

Materials. Each survey contained two sections that included an emotion induction exercise and a trust inventory. The cover page indicated that the survey included two separate and unrelated studies. The format and font of the two studies also differed to enhance the appearance of independence of the two studies. On the final page of the survey, we collected demographic data regarding age, gender, work experience, and education.

Procedure. In the emotion induction, participants completed a directed-writing task designed to manipulate emotion. This elicitation procedure was developed by Strack, Schwarz, and Gschneidinger (1985) and validated in several studies (see Keltner et al., 1993; Lerner & Keltner, 2001; Tiedens & Linton, 2001). Our design included three between-subjects emotion conditions designed to elicit anger, happiness, or sadness. The emotion induction exercise asked participants to first "briefly describe three to five things that make you most [angry/sad/happy]." The following page asked participants to "describe in detail the one situation that has made you the most [angry/sad/happy] you have been in your life, and describe it such that a person reading the description would become [angry/sad/happy] just from hearing about the situation." We used this exercise to induce incidental emotions. These emotions were state emotions unrelated to the subsequent trust judgment task.

For the order manipulation, participants in the before condition started the survey by listing the names of three coworkers (or acquaintances if they did not have coworkers) on the cover page of the survey. Next, these participants completed the emotion induction; they were then told to consider the person whom they listed second (of the three people) as the trustee. Participants in the after condition started the survey by completing the emotion induction. Next, these participants named a coworker (or acquaintance) and were then told to consider that person as the trustee.

Participants' trust was measured by a trust inventory they completed for the named trustee. The trust inventory measured expectations of trustworthiness and intentions to trust another person. The attitudinal trust measures we used were adapted from Johnson-George and Swap's (1982) Specific Interpersonal Trust Scale. In this scale, participants evaluated the trustworthiness of a specific trustee. This person was the coworker or acquaintance that participants identified in a prior section of the survey. The trust inventory we used included 10 items, each with a 7-point scale (ratings range from 1 [*not at all likely*] to 7 [*very likely*]). These items included questions such as what is the likelihood that a particular coworker would follow through on a promise to copy a presentation and repay a $40 loan. Other items in the scale measured intentions to trust the trustee. For example, respondents rated the likelihood that they would give the target an important letter to mail. The trust inventory questions were closely related, $\alpha = .86$, and we use a composite measure (an average) of the 10 questions for our primary analysis. We listed the items we used in the Appendix.

Emotion manipulation check. We did not include an emotion manipulation check in the main study because we were concerned that the manipulation check would reduce the effects of our emotion induction (Keltner, Locke, & Audrain, 1993) and arouse suspicion about the experiment's purpose. Instead, we ran a manipulation check on a separate sample of participants from the same train station. We recruited 34 individuals to complete one of three versions of the study (anger, happiness, or sadness induction) in exchange for a candy bar. The pilot study included the same emotion induction writing task we used in the main study. Instead of completing the trust measure, however, participants completed an emotion manipulation check after the induction (similar procedures were used by Lerner & Keltner, 2001, and Williams & Voon, 1999). In the manipulation check, we asked participants to rate the degree to which they were currently experiencing each of 12 different emotions along a 9-point scale (ratings range from 0 [*not at all*] to 8 [*more strongly than ever*]). The list of emotions included three items to represent anger (angry, mad, irritated), three items to represent happiness (joyful, happy, elated), and three items to represent sadness (gloomy, sad, upset). The scale reliabilities (alpha) for anger, happiness, and sadness were .78, .87, and .79, respectively. We found that anger was higher in the angry condition ($M = 4.69$, $SD = 1.79$) than in the happy condition ($M = 0.92$, $SD = 0.46$, $t(21) = 7.10$, $p < .001$) and the sad condition ($M = 2.21$, $SD = 0.81$, $t(20) = 4.20$, $p < .01$); happiness was higher in the happy condition ($M = 5.06$, $SD = 1.97$) than in the sad condition ($M = 2.30$, $SD = 1.18$, $t(21) = 4.00$, $p < .01$) and the angry condition ($M = 2.82$, $SD = 2.01$, $t(21) = 2.69$, $p < .05$); and sadness was higher in the sad condition ($M = 5.03$, $SD = 1.47$) than in the angry

condition ($M = 2.36$, $SD = 0.62$, $t(20) = 5.54$, $p < .001$) and the happy condition ($M = 0.81$, $SD = 0.26$, $t(21) = 9.80$, $p < .001$). Overall, we found that the writing task successfully manipulated participants' emotional states.

Results

We examined the potential influence of demographic variables on our composite trust measure and found no significant effects for age, gender, education, or work experience. In addition, we did not find any significant interactions between emotion condition and any demographic variables. For our subsequent analysis, we combined data across demographic groups.

In general, participants wrote long and detailed accounts of emotional events in the induction. Representative topics included the birth of a child (happiness), the untimely death of a loved one (sadness), and destructive behavior by a neighbor (anger). Most of the accounts were outside of a work setting (92%) and none of the accounts clearly involved the trustee that the participant subsequently evaluated.[1]

We conducted an analysis of variance (ANOVA) modeling trust as a function of the emotion condition, the order condition, and an interaction between the two. Supporting our thesis, we found a significant effect of emotion condition on trust, $F(2, 114) = 40.8$, $p < .001$. We found no significant effect for order, $F(1, 114) = 1.73$, *ns*, and no significant effect for the interaction between emotion condition and order, $F(2, 114) = 0.974$, *ns.* These latter, nonsignificant results suggest that trust in a particular trustee was not influenced by whether the trustee selection was made before or after the emotion induction.

In paired comparisons, we found that trust levels were significantly different across each of the three emotion conditions. Participants in the happy condition were significantly more trusting than were participants in the angry condition, 5.78 ($SD = 0.83$) versus 4.05 ($SD = 0.93$), $t(78) = 8.97$, $p < .001$, and significantly more trusting than participants in the sad condition ($M = 5.06$, $SD = 0.82$, $t(78) = 3.73$, $p < .01$). Further, participants in the sad condition were significantly more trusting than were participants in the angry condition, $t(78) = 5.23$, $p < .001$.

Discussion

Results from this study demonstrate that incidental emotional states significantly influence trust. Happy participants were significantly more trusting than were sad participants; sad participants were significantly more trusting than were angry participants.

Importantly, we found a significant difference in the effect of emotions on trust for two negative valence emotions. Participants in the angry condition were significantly less trusting than were participants in the sad condition. These results suggest that control appraisals may moderate the influence of emotion valence on trust.

Study 2

In the second study, we compared the effects of our emotion induction with a priming manipulation. In this study, we recruited a nonoverlapping set of 64 participants from the same train station as Study 1 to complete one of four versions of a survey in exchange for a candy bar. The four versions result from a 2 (emotion) × 2 (manipulation) design. The two emotion conditions were anger and gratitude, emotions with high other-person control appraisals. The manipulation conditions varied whether the respondent completed the emotion induction (the writing task we used in Study 1) or a priming task. In the priming task, we asked participants to think of a time that they had felt an emotion (either very angry at someone or very grateful toward someone). Instead of describing the event, we simply asked whether the event had immediately come to mind for them. That is, the priming task cued memories of similar events as the emotion induction, but it did not require an elaboration of the event that would induce an emotional state. After the manipulation, participants completed the same trust inventory that we used in Study 1. As in Study 1, we presented the emotion manipulation and the trust rating task as separate studies. After participants had completed the survey, we asked them what they thought the purpose of the two studies was.

Results from the second study identified a significant effect for the emotion manipulation but not for the priming manipulation. In a two-way ANOVA, we found a significant interaction between the emotion and manipulation conditions, $F(1, 57) = 6.13$, $p < .05$. The difference between anger and gratitude was significant in the emotion induction conditions, $t(28) = 2.73$, $p < .05$, but not in the priming conditions, $t(29) = 0.15$, *ns*. We depict these results in Figure 1. These results suggest that changes in emotional states, rather than mere priming or demand effects, influenced trust judgments. In addition, none of the participants in this study thought the two sections of the study, the manipulation and the trust inventory, were related.

Study 3

In Study 3, we extended our investigation of the relationship between emotion and trust. In this study, we considered four emotions that differ along both valence and control dimensions (Smith & Ellsworth, 1985): anger (negative valence, other-control), guilt (negative valence, personal control), gratitude (positive valence, other-control), and pride (positive valence, personal control). This approach enabled us to test the moderating role of other-person control more directly than we did in Study 1. In addition, we measured both valence and control appraisals for these four emotion conditions.

Method

Participants. We recruited participants from a large Northeastern train station to complete one of eight versions of a survey. A total of 161 participants completed the survey. Participants were roughly evenly distributed across the conditions. (The number of participants in each condition ranged from 19 to 22.) An additional 9 respondents started the survey but were unable to complete it. The demographic background of partici-

[1] For studies 1, 3, and 5, two research assistants, blind to our hypotheses, coded the essays in the emotion induction for occurrence at a work setting and trustee involvement. There was high interrater agreement for both measures; for work setting, κs = .75, .73, and .79 for Studies 1, 3 and 5, respectively. For trustee involvement, κs = .81, .83, and .80 for Studies 1, 3, and 5. Disagreements were resolved through discussion with the authors. For a small percentage of essays, the raters could not determine whether the setting was at work (5%) or whether the trustee was involved (4%). Excluding all of these cases did not impact our results.

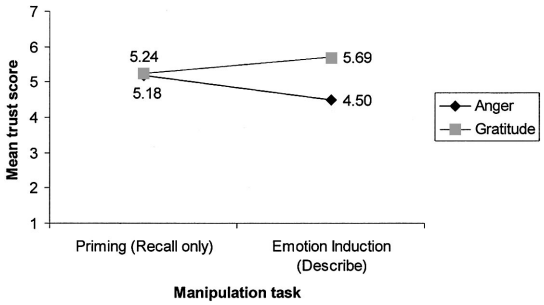

Figure 1. Emotional states versus priming effects on trust, Study 2. Trust scale ratings range from 1 (*least trusting*) to 7 (*most trusting*).

pants in this study was similar to that in Study 1. On average participants were 35.1 ($SD = 16.2$) years old, and 46% were male.

Design. We used a 4 × 2 design that included four emotion conditions (anger, guilt, gratitude, and pride) and two order conditions (as in Study 1, we balanced whether participants identified the trustee before or after the emotion induction).

Materials. Each survey included a directed-writing task for the emotion induction, the identification of a coworker or an acquaintance (counterbalanced before and after the emotion induction), and a trust inventory (that refers to the acquaintance they identified earlier in the survey).

Procedure. The emotion induction involved the same directed-writing task we used in Study 2. The trust inventory was identical to the one in Studies 1 and 2, and again, we found high scale reliability ($\alpha = .85$).

At the end of the survey, we measured valence and control appraisals for the emotion-eliciting event. After participants completed both the emotion induction and the trust inventory for the trustee, we asked them to answer six questions about the situation they described in detail in the writing task. Two of the six questions were designed to assess valence (pleasantness and unpleasantness of the event), and the remaining four questions were designed to assess appraisals of control. For example, we asked participants "To what extent did you feel someone other than yourself could influence what was happening in the situation?" (ratings range from 1 [*not at all*] to 7 [*completely*]). We collected demographic information after the appraisal measures. Of the 161 participants, 157 completed this section of the survey.

Emotion manipulation check. As in Study 1, we conducted a pilot study to assess the effectiveness of our emotion induction. In the pilot study, we recruited 44 individuals from the train station (who did not participate in the main study) to complete one of four versions of a manipulation check in exchange for a candy bar. The format of this pilot study was very similar to the pilot study we conducted in Study 1; in this study, however, we included a different set of emotions: anger, gratitude, pride, and guilt. The list of emotions included three items to represent anger (angry, mad, irritated; $\alpha = .89$), two items to represent pride (proud, self-fulfilled; $\alpha = .81$), three items to represent guilt (guilty, remorseful, sorry; $\alpha = .83$), and three items to represent gratitude (appreciative, grateful, thankful; $\alpha = .85$). We report results from this manipulation check in Table 1. We found that the emotion induction task significantly influenced the target emotion in each of the four emotion conditions.

Appraisal measures. We examined responses to our appraisal questions to test the consistency between our emotion inductions and Smith and Ellsworth's (1985) characterization of anger (negative valence, other-person control), guilt (negative valence, personal control), pride (positive valence, personal control), and gratitude (positive valence, other-person control). We reverse scored the negative questions and examined answers to the valence and control appraisals separately. For each scale, high scores represent positive valence or high other-person control and low scores represent negative valence or high personal control. The scale reliabilities for the two valence items ($\alpha = .91$) and the four control items ($\alpha = .78$) were high.

In ANOVA tests, we found that the valence, $F(3, 153) = 34.1$, $p < .001$, and control, $F(3, 153) = 24.4$, $p < .001$, ratings were significantly different across emotions consistent with Smith and Ellsworth's (1985) conceptualization: Anger and gratitude had high other-person control (whereas pride and guilt had high personal control), and pride and gratitude had positive valence (whereas anger and guilt had negative valence). We report mean ratings of valence and other-person control for each emotion in Table 2.

Results

We found no significant effects for demographic variables or order. As a result, we collapsed our data across demographic and order groups, and we report analysis for the four emotion conditions.

We conducted an ANOVA using trust as the dependent variable and emotion condition as the independent variable. Consistent with our findings in Study 1, incidental emotions influenced trust. We found significant differences in trust across the four emotion conditions, $F(3, 157) = 12.53$, $p < .001$. We hypothesized that gratitude and anger (other-person control emotions) would influence trust more than would pride and guilt (personal control emotions). Our results support these hypotheses. In paired comparisons, we found significant differences in trust ratings between participants in the gratitude and anger conditions, $M = 5.74$ ($SD = 0.79$) and $M = 4.47$ ($SD = 1.28$), respectively, $t(81) = 6.12$, $p < .001$. In contrast, we found no significant differences between ratings in the pride and guilt conditions ($M = 5.12$, $SD = 0.87$, and

Table 1
Emotion Manipulation Check, Study 3

	Self-reported emotion							
	Angry		Guilty		Proud		Grateful	
Emotion condition	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Anger ($n = 11$)	4.98_a	1.45	2.15_b	2.13	3.15_b	2.00	2.80_b	1.85
Guilt ($n = 10$)	2.20_b	1.64	4.70_a	1.73	3.20_b	1.60	3.05_b	1.68
Pride ($n = 11$)	1.50_b	1.21	1.09_b	2.03	5.68_a	0.89	3.91_b	1.19
Gratitude ($n = 10$)	2.28_b	1.69	3.15_b	1.58	3.85_b	1.23	6.40_a	1.84

Note. Higher numbers indicate stronger emotion. Subscripts should be interpreted only within rows. Planned contrasts identify significantly higher scores for the expected emotions (indicated by subscript a) than the other emotions (indicated by subscript b) at $p < .05$.

Table 2
Appraisals of Valence and Other-Person Control, Study 3

	Valence		Other-Person Control	
Emotion	*M*	*SD*	*M*	*SD*
Anger	2.54_a	1.71	5.18_a	1.27
Guilt	2.07_a	1.30	3.63_b	1.37
Pride	5.54_b	1.60	3.77_b	1.15
Gratitude	4.57_b	2.33	5.24_a	1.29

Note. Subscripts should be interpreted only within columns. Means with the same subscript are not significantly different from each other. Means with different subscripts are significantly different at $p < .001$.

$M = 5.07$, $SD = 0.70$, respectively, $t(76) = 0.24$, *ns*). In addition, we found that grateful respondents provided significantly higher trust ratings than did proud and guilty respondents, $t(79) = 2.94$, $p < .05$, and $t(77) = 3.14$, $p < .05$, respectively, and that angry respondents provided significantly lower trust ratings than proud and guilty respondents, $t(81) = 3.13$, $p < .05$, and $t(78) = 2.84$, $p < .05$, respectively.

We next considered whether other-person control appraisals mediate the influence of emotion on trust (Baron & Kenny, 1986). Because anger and gratitude have opposite effects on trust, the effect of other-person control appraisals would cancel out across the two emotions. To address this concern, we tested mediation of other-person control separately for emotions with the same valence; that is, we compared gratitude with pride and anger with guilt. A valence-centric approach would predict that gratitude and pride (anger and guilt) would have similar effects on trust; in this analysis, we intended to show that the difference between the effects of gratitude and pride (anger and guilt) on trust can be explained by differences in control appraisals, in which stronger appraisals of other-person control led to stronger effects on trust. In our context, full mediation implies that the positive influence of gratitude on trust (compared with pride) is explained by stronger appraisals of other-person control and that the negative influence of anger on trust (compared with guilt) is explained by stronger appraisals of other-person control.

First, we conducted mediation analysis for the positive valence emotions (gratitude and pride). In our first regression, we used emotion as the independent variable (1 = gratitude, 0 = pride) and the composite trust score as the dependent variable, controlling for valence appraisals. As expected, this relationship was significant ($\beta = .38$, $p < .01$). In the second regression, we tested the relationship between emotion and appraisals of other-person control (measured by other-person control appraisals and reversed-scored personal control appraisals), again controlling for valence. This relationship was also significant and positive ($\beta = .49$, $p < .001$), indicating that those in the grateful condition had higher appraisals of other-person control than did those in the pride condition. In the final step, we included emotion, valence, and other-person control as independent variables and trust as the dependent variable. Supporting our mediation prediction (Sobel test, $Z = 2.28$, $p < .05$), we found that the path between gratitude and trust was no longer significant ($\beta = .17$, *ns*) when the direct influence of other-person control was included in the regression ($\beta = .37$, $p < .05$). We conducted an identical set of analyses for the negative valence emotions (anger and guilt). Results from this analysis also identified full mediation ($Z = 2.14$, $p < .05$). We depict the mediation results in Figure 2 and Figure 3.

Discussion

As in Studies 1 and 2, we identified a significant relationship between incidental emotional states and trust. We found that participants in the grateful condition were significantly more trusting than were participants in other conditions, and participants in the anger condition were significantly less trusting than were participants in other conditions.

Our results also demonstrate that the other-person control appraisal mediates the relationship between incidental emotions and trust. In this study, we found significant differences in trust between participants in the gratitude and anger conditions (conditions that involve emotions with appraisals of other-person control), but virtually no differences in trust between participants in the pride and guilt conditions (conditions that involve emotions with appraisals of personal control). In the mediation analysis, we found that the influence of positive valence emotions (gratitude and pride) and negative valence emotions (anger and guilt) were both fully mediated by appraisals of other-person control.

Study 4

In Study 4, we extended our investigation of the mechanism linking emotional states with trust judgments. In this study, we explored the moderating influence of emotion salience. Consistent with the affect-as-information model, we predicted that salient emotions would not impact unrelated judgments. In this study, we also used methods that are very different from those we used in earlier studies. First, we conducted this study in a laboratory setting. Second, every participant in this study evaluated the same trustee. Third, we induced emotions using movie clips rather than a writing task. Although the use of film clips limited the types of emotions we could induce, it afforded greater experimental control over the emotion induction.

Method

Participants. A total of 112 undergraduate students completed the study in exchange for course credit. On average, participants were 19.4 years old ($SD = 1.07$) and about half (48%) were male. From participants' responses, we identified 3 participants who recognized the interviewee and 2 who suspected a link between the first and third film clips. We removed

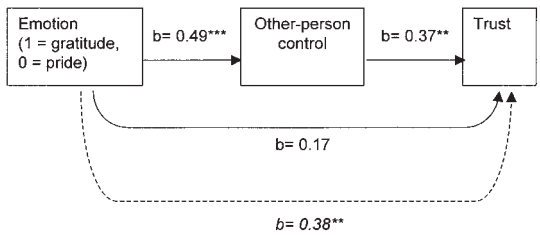

Figure 2. Mediation analysis of other-person control: gratitude versus pride, Study 3. $^{**}p < .01$. $^{***}p < .001$.

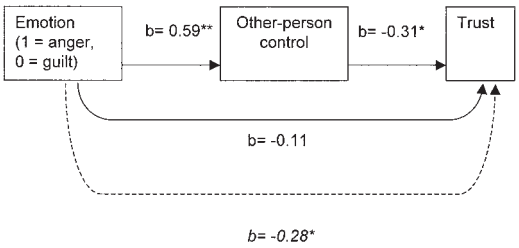

Figure 3. Mediation analysis of other-person control: anger versus guilt, Study 3. *$p < .05$. **$p < .01$.

all 5 of these participants from our analysis, and we report results on the basis of the remaining 107.

Design. We randomly assigned participants to one of four treatment conditions from a 2 (emotion) × 2 (salience) design. We manipulated emotions by showing participants one of two film clips to induce either happiness or anger. Participants viewed these film clips in isolation via computer.

Participants in the happy condition viewed *Robin Williams: An Evening at the Met* (Miller & Williams, 1986), a film clip from a comedy act (Gross & Levenson, 1995). In this film clip, a comedian discusses drug use and reckless driving (topics unlikely to prime feelings of trust in an unrelated person). Participants in the angry condition viewed a film clip from the movie *Witness* (Feldman, Bombyk, & Weir, 1985), in which teenagers harass an Amish man (Jones & Fox, 1992). In our pilot studies, we found that the anger film clip alone evoked only moderate anger. As a result, we had participants read a short story after viewing the film clip that described real events in which Amish people were harassed and physically attacked. This story was displayed for a fixed period of time (60 s) on the computer screen. (In a pilot study, we determined that 60 s was sufficient to read the entire story.) After this period, participants were allowed to progress when they were ready. The average total viewing time for the anger film clip and story (2 min 27 s) was very similar to the viewing time for the happy film clip (2 min 32 s).

In the emotion salience conditions, we manipulated whether a message appeared after the emotion induction. In the salient condition, a message on the computer screen read, "Prior research has shown that even short film clips like the ones you have seen can influence people's emotions." This message appeared on the screen for 10 s. In the nonsalient condition, participants viewed a blank screen for 10 s.

Materials. Participants sat in isolated cubicles, wore headphones, and completed the entire experiment via personal computer. The computer displayed the following sequence of screens: instructions, three film clips, salience message (in the salience conditions, a blank screen otherwise), trust inventory, emotion manipulation check, and postexperiment questions (including demographic measures and thoughts about the experiment's purpose).

Procedure. Small groups of participants ($n = 2$ to 8) arrived at the behavioral laboratory at scheduled intervals and were seated at isolated cubicles. Within a group, participants were assigned to the same emotion condition but different salience conditions. All participants in a group started the experiment at the same time, and all participants were dismissed from their cubicles at the same time (after the last participant completed the study).

At the start of the experiment, participants were told that they would view three film clips and that after viewing the three film clips they would be asked to answer questions about one of the clips. Each film clip ran for a set amount of time, and participants were not able to repeat a film clip or answer questions out of sequence.

The first two film clips were common to all participants. The first film clip (2 min 21 s long) was an interview with a 20-year-old male student. In this film clip, a member of the university's television station (who was off screen) asked 32 questions that the male student answered. The questions had low affective content and low relevance to trust. For example, the interviewer asked, "how often do you go to the grocery store?" Responses were between one word and one sentence long.

The second film clip (56 s long) involved a car chase scene from *Bullitt* (D'Antoni, Relyea, & Yates, 1968). We included this film clip to obfuscate the link between our first film clip (the interview) and our third film clip (the emotion induction). Martin et al. (1993) and subsequent studies (Halberstadt & Niedenthal, 1997; Hirt et al., 1997) have shown that the *Bullitt* film clip maintains participants' attention but does not create positive or negative feelings in most participants.

We used the third film clip to induce an emotion. Half of the participants viewed the happy film clip (from Robin Williams, *An Evening at the Met*), and half of the participants viewed the angry film clip (*Witness*, followed by a short story).

Following the third film clip, half of the participants received the salience message and half viewed a blank screen for 10 s. We then asked participants to evaluate the interviewee from the first film clip using the same trust scale we used in Studies 1 and 2 ($\alpha = .82$). We then asked participants whether they recognized the interviewee from the first film clip.

Next, participants completed an emotion manipulation check by rating the extent to which they felt each of 12 common emotions (ratings ranged from 0 [*not at all*] to 8 [*more than ever*]. We used 4 of the 12 emotions to measure anger (angry, mad, furious, and irritated), and 3 of the 12 emotions to measure happiness (amusement, joy, happiness). Both the anger and happiness scales were reliable, $\alpha = .94$ and $\alpha = .92$, respectively.

We then asked participants what they thought the purpose of the study was. At the conclusion of the experiment, we asked demographic questions and debriefed and dismissed our participants.

Results

Manipulation check. We found that the emotion manipulation significantly influenced anger, $F(1, 104) = 97.19$, $p < .001$, and happiness, $F(1, 104) = 89.65$, $p < .001$. Participants were significantly angrier in both the salient ($M = 4.32$, $SD = 2.67$) and nonsalient ($M = 4.62$, $SD = 2.86$) anger conditions than were participants in the salient ($M = 0.61$, $SD = 1.12$) and nonsalient ($M = 0.47$, $SD = 0.66$) happiness conditions. Participants were significantly happier in the salient ($M = 5.45$, $SD = 1.76$) and nonsalient ($M = 4.86$, $SD = 2.13$) happiness conditions than were participants in the salient ($M = 1.44$, $SD = 1.81$) and nonsalient ($M = 1.83$, $SD = 1.89$) anger conditions. The salience manipulation did not significantly influence anger, $F(1, 104) = 0.32$, *ns* or happiness, $F(1, 104) = 0.68$, *ns.*

ANOVA. We next used ANOVA to model trust ratings as a function of the emotion and salience manipulations. We found a significant effect for emotion, $F(1, 104) = 5.07$, $p < .05$, and a significant interaction between emotion and salience, $F(1, 104) = 4.53$, $p < .05$. We depict this interaction in Figure 4. In the nonsalient condition, happy participants ($M = 5.44$, $SD = 0.71$) were significantly more trusting than were angry participants, $M = 4.87$, $SD = 0.83$, $t(53) = 2.65$, $p < .05$. In the salient condition, however, happy participants ($M = 5.39$, $SD = 0.72$) were not significantly more trusting than were angry participants, $M = 5.33$, $SD = 0.63$, $t(52) = 0.30$, *ns*.

Discussion

Results from this study extend our understanding of the link between emotional states and trust. We manipulated emotion sa-

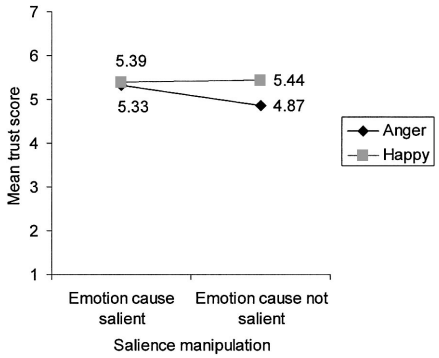

Figure 4. Emotional states and trust by salience of emotional state, Study 4. Trust scale ratings range from 1 (*least trusting*) to 7 (*most trusting*).

lience and found a significant interaction between emotion valence and emotion salience on trust judgments. Consistent with the affect-as-information model, we found that angry participants provided significantly lower trust ratings than happy participants in the nonsalient condition, but angry participants did not provide lower ratings than happy participants in the salient condition.

We used very different methods in our fourth study than those we used in Studies 1 and 3. In our fourth study, we exerted greater experimental control over the experimental setting, the emotion induction, and the trust target. We conducted our fourth study in a behavioral laboratory, we had participants rate the same trustee, we isolated participants from each other, we had them wear headphones, and we had them view film clips on a computer.

Study 5

In Study 5, we extended our investigation of the relationship between emotion and trust in two important ways. First, we considered the role of familiarity in moderating the relationship between emotion and trust. Unlike the first four studies in which we focused on unfamiliar trustees, such as acquaintances or unfamiliar coworkers, in this study we considered both unfamiliar and familiar trustees. Second, we compared the effects of anger and gratitude with a neutral emotion condition. Our prior studies identified significant differences between emotion conditions but did not compare the effects of those emotion inductions with a control condition. As in Study 4, this study was conducted in a controlled laboratory setting and used undergraduate students.

Method

Participants. We recruited 181 undergraduate students from a large Northeastern university to participate in our study for course credit. A total of 175 participants completed the survey in a laboratory setting. Six additional participants started the survey but failed to complete both the directed-writing task and the trust inventory. Between 2 and 20 participants completed surveys at one time; participants were spread out in a room with 80 seats. Participants were roughly evenly distributed across 12 conditions (the number of participants in each condition ranged from 14 to 17). On average, participants were 19.1 ($SD = 1.10$) years old, and 38% were male.

Design. Participants were randomly assigned to 1 of 12 conditions. These conditions derived from a 2 (familiarity) × 2 (order) × 3 (emotion) design. Across familiarity conditions, participants rated someone who attended their university who they either knew well or did not know well. We restricted trustees to fellow university students who were currently on campus so that we could use measures of familiarity that could be applied homogeneously across the sample. The order conditions counterbalanced the selection of the trustee with the emotion induction, as was done in Studies 1 and 3. The emotion conditions included anger, gratitude, and a neutral emotion condition.

Materials. As in Study 3, each survey contained a directed-writing task, identification of a trustee, and a trust inventory for the trustee. On the last page of the survey, we collected demographic information including age, gender, and details about the relationship between the participant and the trustee.

Procedure. Our emotion induction procedure was similar to the one we used in Study 2. For the anger and gratitude conditions, we used the same procedures. For the neutral emotion condition, we asked participants to describe the last classroom they had been in so that someone else could picture it perfectly. We used this approach to keep the timing and nature of the task uniform across conditions. We used the same trust inventory as we used in Study 1, except that job-related items were adapted to class contexts; again we found high scale reliability ($\alpha = .89$).

We also collected information about participants' relationships with their trustee. With respect to the person they identified, we asked participants questions such as how much time they spent with the individual outside of class, how often they communicated, how much they knew about that person's interests, and about their common friends. In addition, we asked participants to rate their liking of the trustee and whether they had any romantic interest or involvement with the trustee.

Results

We first examined the influence of the order condition and demographic variables on trust. We found no significant effects. As a result, we collapsed our data across order conditions for our subsequent analyses. We controlled for liking in the analysis. Only 3 participants indicated any romantic interest or involvement with their trustee and our results were not affected by their responses.

In an ANOVA, using trust as the dependent variable and emotion and familiarity conditions as independent variables, we found main effects for emotion, $F(2, 163) = 10.54$, $p < .001$, and familiarity, $F(1, 163) = 99.60$, $p < .001$, as well as an interaction between emotion and familiarity, $F(2, 163) = 10.19$, $p < .001$. Because the interaction between emotion and familiarity is significant, we parsed the data into the two familiarity conditions and tested for the influence of emotion on each familiarity condition separately. Supporting our hypothesis, we found that the emotion condition had a significant effect on trust in the unfamiliar relationship condition, $F(2, 82) = 18.45$, $p < .001$, but that the emotion condition was not significant in the familiar relationship condition, $F(2, 87) = 0.37$, *ns*. We depict mean responses across conditions in Figure 5. Although the high average trust scores for familiar trustees may indicate a ceiling effect, the distributions for angry and grateful responses are nearly identical. We also calculated a Wilcoxon's rank sum test (which does not require the assumption of normality), and we found no significant difference between the emotion conditions ($W = 0.59$, *ns*).

In the unfamiliar relationship condition, we found that trust ratings for participants in the anger condition were significantly lower than were trust ratings for participants in the gratitude (*M*s of 4.45 and 5.77, respectively; $t(55) = 6.03$, $p < .001$) and neutral (*M*s of 4.45 and 5.06, respectively; $t(54) = 2.77$, $p < .01$) conditions. Furthermore, we found that trust ratings for participants in the gratitude condition were significantly higher than were trust

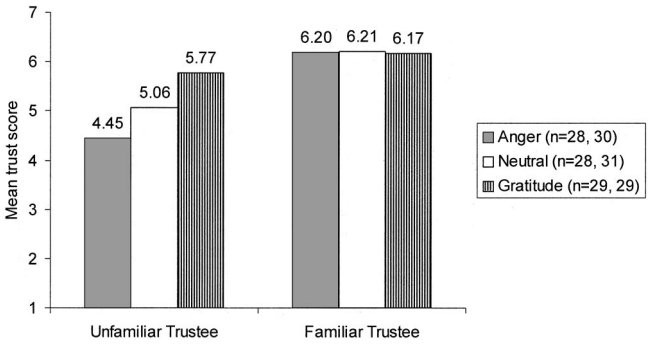

Figure 5. Emotion, familiarity, and trust, Study 5. Trust scale ratings range from 1 (*least trusting*) to 7 (*most trusting*).

ratings for participants in the neutral condition, $t(55) = 3.27$, $p < .01$.

Discussion

In this study, we identified an important boundary condition for the influence of emotional states on trust. When the trustee was unfamiliar, incidental anger decreased trust and incidental gratitude increased trust. When the trustee was familiar, however, incidental emotions did not influence trust. These findings support our conceptualization of emotional states as information for trust relationships. When relevant information is limited, as it is for acquaintances, judgments of trustworthiness may be informed by an individual's emotional state. When relevant information is not limited, however, as it is for very familiar trustees in commonplace settings, judgments of trustworthiness are *not* likely to be informed by an individual's emotional state; instead, an individual may retrieve a preformed trust judgment. Although we found no effects for emotions on judgments of familiar trustees in this study, quite possibly, emotions could influence judgments of familiar trustees in novel situations or judgments of familiar trustees with whom the truster has had a mix of positive and negative experiences.

General Discussion

This article describes the relationship between incidental emotional states and trust. Across five studies, we found a substantial and robust relationship between normatively irrelevant, incidental emotions and trust. In Study 1, we found that happy participants were more trusting than sad participants and that sad participants were more trusting than angry participants. In Study 2, we demonstrated that the effects of incidental emotions on trust were not simply caused by priming. In Study 3, we compared the influence of four emotions on trust. The four emotions were characterized by either positive or negative valence and by either appraisals of other-person control (anger and gratitude) or appraisals of personal control (pride and guilt). Supporting our hypotheses, emotions with appraisals of other-person control influenced trust in a manner consistent with the emotion's valence; anger decreased trust and gratitude increased trust. Emotions with personal control influenced trust significantly less than did emotions with other-person control; participants in the gratitude condition were more trusting than were participants in the pride condition, and participants in the anger condition were less trusting than were participants in the guilt condition.

In Studies 4 and 5, we used controlled laboratory settings and identified important moderators of the relationship between incidental emotions and trust. In Study 4, we manipulated the salience of the emotion manipulation. Consistent with the affect-as-information model, we found that identifying the source of the incidental emotion eliminated the influence of emotions on trust. In Study 5, we examined the moderating role of familiarity with the trustee. Consistent with the affect infusion model, which suggests that people engage in different types of processing for different types of judgments, we found that incidental emotions influenced trust significantly more for unfamiliar trustees (e.g., acquaintances) than they did for familiar trustees.

Our work integrates both mood (Forgas, 1995; Schwarz & Clore, 1988) and emotion (Smith & Ellsworth, 1985) models, and our results offer important insight into the relationship between emotion and judgment. Specifically, our findings suggest that *emotions are more likely to be misattributed when the appraisals of an emotion are consistent with the nature of the judgment task*. Judgments can be characterized along several dimensions, including the object of the judgment (e.g., ourselves, another person, an event) and the metric of the judgment (e.g., favorableness, certainty, amount, causal attribution). In many cases, characteristics of the judgment task will correspond to the cognitive appraisal dimensions of emotions. For example, in judging an employee's performance, the object of the judgment (another person) corresponds to the appraisal dimension of other-person control, and the metric of the judgment (is the performance good or bad) corresponds to the appraisal dimension of valence.

We conceptualize the object of the judgment as a constraining dimension. This characteristic of the judgment task determines which emotions might influence the judgment. We conceptualize the metric of the judgment task as the evaluative dimension. This dimension determines the direction in which an emotion might influence the judgment.

We expect emotions to be misattributed to judgments when the constraining dimension of the judgment task matches the emotion's corresponding cognitive appraisal. For example, emotions with other-person control appraisals, such as anger, are likely to influence other-person judgments, such as trust. We expect judgments to be influenced in the direction of the emotion's appraisal along the evaluative dimension. For example, positive-valence emotions are likely to lead to positive judgments and negative-valence emotions are likely to lead to negative judgments. This framework applies to judgments of personal and situational attributes as well. For example, we expect judgments about an individual's own future success to be more strongly affected by pride and guilt (personal-control emotions) than by anger or sadness (other-person and situational control emotions), and we expect pride to lead to more optimistic judgments than guilt. Similarly, we expect risk assessments of natural disasters to be influenced by sadness and hope (situational control emotions) more than by pride or anger, and we expect hope to lead to more optimistic assessments than sadness. Consistent with prior work (Forgas, 1995; Schwarz, 1990), we expect incidental emotions to be most likely to influence complex and affective judgments.

Importantly, the constraining and evaluative dimensions can match emotion appraisals other than the control and valence ap-

praisals. This broader conceptualization is consistent with Keltner et al.'s (1993) results. Keltner et al. found that when an event was negative, angry participants were more likely to blame other people for the event than were sad participants. When the event was positive, Keltner et al. found no difference in attributions across angry and sad participants. We can apply our framework to these results. In this case, control appraisals represent the evaluative dimension (judgments range from low to high other-person control and from low to high situational control) and valence represents the constraining dimension (negative emotions only influenced attribution judgments for negative events).

In addition to offering a new framework for modeling the relationship between incidental emotions and judgment, our work also contributes to the affective–cognition literature by applying Forgas's affect infusion model to relationship-dependent processing styles. In particular, we identify target familiarity as an important moderator of the relationship between affect and judgment. We find that incidental emotions influence judgments of others with whom people are already familiar—but not too familiar. Prior interpersonal judgment research has often focused on relationships with fictional characters (Forgas, Bower, & Moylan, 1990; Keltner et al., 1993) and confederates (Forgas, 1998). Our findings suggest that the generalizability of research in interpersonal judgments may be limited by the nature of the relationships that are studied.

Given the importance of trust in economic and social exchanges, as well as the ease with which incidental emotions can be invoked (e.g., by quarrelling with a spouse), results from this work inform a number of practical prescriptions. First, decision makers should avoid making quick trust decisions and, instead, take precautions to make trust judgments over time and on the basis of interactions across multiple contexts.

Second, individuals should recognize that incidental emotions could change the way others judge *their* trustworthiness. Individuals should recognize the importance of socializing with coworkers to develop familiarity (e.g., Schweitzer & Kerr, 2000) and adapt their behavior to the emotions of the people with whom they interact. For example, people hoping to engender trust may be better served by starting off a meeting by asking a coworker about her weekend fishing trip than about the status of her divorce proceedings. Similarly, if a business associate arrives late to a meeting, angry about a traffic accident, it may be worthwhile to postpone discussions about a new joint venture.

Third, individuals should take steps to curtail the influence of incidental emotions on their judgment. Results from our work demonstrate that the salience of an emotion's source mitigates the effects of incidental emotions on trust. Prescriptively, individuals should heighten their awareness of the source of their emotions. In some cases, individuals should also work to raise the awareness of the source of others' emotions. This prescriptive advice, however, merits an important caveat: A large number of biases influence our social perceptions (Hinton, 1993), and prior work has demonstrated that it is difficult to recognize and adjust for these effects (Wegener & Petty, 1995).

Results from our work also identify a number of important directions for future research. First, in our studies, we guided emotional accounts to fit the typical control appraisals of the emotion. For example, we specifically asked participants to recall a situation in which they felt the most proud of themselves or the angriest at another person. Future research should explore the influence of emotions with atypical appraisals, such as anger with oneself. Prior work has found that emotions are not strictly bound by their defining cognitive appraisals (Tiedens & Linton, 2001), and we predict that emotions will influence judgments consistent with their actual appraisals (e.g., anger with oneself will influence self-related judgments) rather than the typical appraisals of the emotion.

Prior research suggests that the effects of mood on judgment are likely to be more pervasive than the effects of emotion on judgment (Forgas & George, 2001; Schwarz, 1990). We postulate that this is true because moods have weaker control appraisals than emotions, and moods are therefore more likely to be misattributed to a variety of targets (e.g., another person, oneself, or an event) than emotions. Similarly, we expect emotions that lack strong control appraisals (such as frustration and anxiety) to influence a wide variety of judgments. Future research is needed to test these predictions.

Results from our work should also extend to related investigations of trust. For example, recent work has begun to explore the influence of deception on trust and trust recovery (Kim, Ferrin, Cooper, & Dirks, 2004; Schweitzer, Hershey, & Bradlow, 2004). We postulate that emotions, such as anger, play an important moderating role in these processes. Deception may harm trust because it makes people angry with the trustee. Quite possibly, actions that mitigate this anger, even actions that are normatively irrelevant to trust, may help the trustee regain trust.

In other work, Allred, Mallozzi, Matsui, and Raia (1997) demonstrated that anger and compassion directed toward negotiating partners influenced the amount of joint gains negotiators earned and the willingness of negotiators to work with their partner in the future. Although trust was not directly measured in this work, we conjecture that changes in trust in one's counterpart contributed to these results. More broadly, we believe that in addition to studying the influence of incidental emotions, future work should consider the influence of emotions that are directed toward others.

Taken together, our results offer insight into the mechanics of trust and identify incidental emotions as a robust and important determinant of trust. In many cases, emotions may play an important role in trust judgments precisely because people are unaware of the significant influence their emotional state has on their judgment.

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Appendix

Trust Inventory

I would give _____ an important letter to mail after s/he mentions that s/he is stopping by the post office today.

If _____ promised to copy a presentation for me, s/he would follow through.

If _____ and I decided to meet for coffee, I would be certain s/he would be there.

I would expect _____ to tell me the truth if I asked him/her for feedback on an idea related to my job.

If _____ was late to a meeting, I would guess there was a good reason for the delay.

_____ would never intentionally misrepresent my point of view to others.

I would expect _____ to pay me back if I loaned him/her $40.

If _____ laughed unexpectedly at something I did or said, I would know s/he was *not* being unkind.

If _____ gave me a compliment on my haircut I would believe s/he meant what was said.

If _____ borrowed something of value and returned it broken, s/he would offer to pay for the repairs.

Note. From "Measurement of Specific Interpersonal Trust: Construction and Validation of a Scale to Assess Trust in a Specific Other," by C. Johnson-George and W. C. Swap, 1982, *Journal of Personality and Social Psychology, 43*, p. 1316. Copyright 1982 by the American Psychological Association. Adapted with permission.

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