

**Running Head: EMOTIONS AND ADVICE**

**Blinded by Anger or Feeling the Love:  
How Emotions Influence Advice Taking**

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**Abstract**

Across two experiments, we demonstrate that emotional states influence how receptive people are to advice. We focus on incidental emotions, emotions triggered by a prior experience that is *irrelevant* to the current situation. We find that people who feel incidental gratitude are more trusting and more receptive to advice than are people in a neutral emotional state, and that people in a neutral state are more trusting and more receptive to advice than are people who feel incidental anger. In our setting, greater receptivity to advice increased judgment accuracy. People who felt incidental gratitude were more accurate than were people in a neutral state, and people in a neutral state were more accurate than were people who felt incidental anger. Our results offer insight into how people use advice, and identify conditions under which leaders, policy makers, and advisors may be particularly influential.

*Keywords:* Advice taking; Emotions; Gratitude; Anger; Trust; Information processing

**Blinded by Anger or Feeling the Love:  
How Emotions Influence Advice Taking**

*Advice is probably the only free thing  
which people won't take.*

Lothar Kaul

Before choosing a career path, deciding where to live, or selecting a physician, people frequently receive advice from others. Advice plays a particularly important role in organizations. For example, managers often receive professional advice from consultants before undertaking a major initiative, such as launching a new product, merging with a competitor, or downsizing (O'Shea & Madigan, 1997; Shapiro, Eccles, & Soske, 1993). Sometimes, people are heavily influenced by the advice they receive. Other times, they reject it entirely.

Prior research has found that when people have an opinion of their own, they consistently discount the opinion of others relative to their own (e.g., Larrick & Soll, 2006; Yaniv & Foster, 1997; Yaniv, 2004). However, characteristics of both the advisor and the decision influence how receptive people are to advice. For example, people are more likely to take advice from known experts (Goldsmith & Fitch, 1997; Harvey & Fischer, 1997; Sniezek, Schrah, & Dalal, 2004) and from people who are older, wiser, better educated, or more experienced than the person receiving advice (Feng & MacGeorge, 2006). Individuals also tend to weigh advice more heavily when the decision domain is difficult (Gino & Moore, 2007) and when the advice was costly to obtain (Gino, 2007; Patt, Bowles, & Cash, 2006).

Although people may have many reasons to reject or take the advice they receive from others, prior research has failed to consider the role that emotions might play in the advice taking

process. Emotions may influence advice taking in several ways. First, the person receiving advice may feel emotions for or related to the person giving the advice. Second, the decision itself may be affect rich. For example, the decision to place one's parents in a nursing facility and sell their house is likely to trigger many emotions. Third, *incidental* emotions that stem from a prior, unrelated experience may influence how responsive individuals are to advice.

No prior work has investigated how internal states, such as the decision maker's emotional state, influence advice taking. We postulate that emotions significantly influence how receptive people are to advice. In this article, we focus on the influence of incidental emotions. The emotions literature distinguishes between *integral* emotions, emotions triggered by the current situation, and *incidental* emotions, emotions triggered by a prior, unrelated experience (Loewenstein & Lerner, 2003). Normatively, incidental emotions should not influence current judgments or decisions.

We conceptualize our study of incidental emotions as a conservative test of the role emotions play in advice taking. Integral emotions are likely to exert a stronger influence on advice taking than incidental emotions. Unlike incidental emotions that individuals may correctly attribute to a prior situation, integral emotions cannot be correctly attributed to a prior situation. In addition, incidental emotions that result from a prior experience are likely to decay over time. Integral emotions are generated from the decision context itself and are more likely than incidental emotions to be infused into the decision process.

### *Advice Taking and Affect*

Advice taking involves a complex decision process, and prior work has argued that complex decision processes are most susceptible to the influence of affect (e.g., Fiedler, 1991; Forgas, 1995; 1999a; 1999b, 2002). Prior affect research has identified a number of ways in

which affect (moods and emotions) influences important judgments and behaviors. For example, prior work has found that affect influences important organizational behaviors, such as pro-social behavior (Bartlett & DeSteno, 2006; George & Brief, 1992), work performance (Beal, Weiss, Barros, & MacDermid, 2005; Grandey, 2000), job satisfaction (Brief & Weiss, 2002; Judge & Ilies, 2004), group outcomes (George, 1990; Ilies, Wagner, & Morgeson, 2007), and negotiations (George, Jones, & Gonzalez, 1998; Moran & Schweitzer, 2008).

Several studies have also linked affect with judgments and behaviors that are closely related to advice taking. For instance, scholars have found that positive moods increase liking (Gouaux, 1971; Veitch & Griffitt, 1976), helping and generosity (Isen, 1970; Isen & Levin, 1972). Drawing upon these findings, Jones and George (1998: 534) conjectured that:

Experiencing positive moods or emotions may cause one to have more positive perceptions of others and see the world through ‘rose-colored glasses,’ resulting in a heightened experience of trust in another person. Conversely, negative moods and emotions may add a negative tone to interactions and may result in an individual perceiving others as less trustworthy than they actually are.

In this paper, we are particularly interested in the relationship between affect and trust. Consistent with prior research (Dunn & Schweitzer, 2005: 726; Rousseau, Sitkin, Burt, & Camerer, 1998), we define trust as “the willingness to accept vulnerability based upon positive expectations about another’s behavior.” Across several experiments, Dunn and Schweitzer (2005) examined the link between emotions and trust. Results from their work demonstrate that incidental emotions significantly influence trust. Specifically, Dunn and Schweitzer (2005) found that negatively valenced emotions, such as anger, decrease trust and positively valenced emotions, such as happiness and gratitude, increase trust.

Other work has found that trust is positively associated with advice taking. The more an individual trusts the advisor, the more influenced that individual is by the advice (Sniezek & Van

Swol, 2001). We build upon this work to explore the role of incidental emotions in advice taking. In this article, we focus on the exchange of advice at the dyadic level. It is important to note, however, that advice can be exchanged between two individuals, among multiple individuals, or between groups. Our findings offer insight into situations in which one person is responsible for a final decision, but before committing to a decision, she or he receives advice from another person.

### *Hypotheses*

Prior research has found that the judgments people make are influenced by their current feelings, even when they should not be (Schwarz & Clore, 1983). For example, Schwarz and Clore (1988) documented a significant relationship between positive and negative moods triggered by the current weather (e.g., whether it is currently sunny or cloudy) on judgments of overall life satisfaction.

In this article, we consider the misattribution of two specific emotions, anger and gratitude, when people make judgments about relying upon advice. Anger and gratitude represent emotions with opposing valence. Anger is a negatively valenced emotion. Gratitude is a positively valenced emotion. Anger and gratitude, however, are similar insofar as both are characterized by other-person control: both anger and gratitude are typically triggered by the actions of others (Smith & Ellsworth, 1985).

In related work, Dunn and Schweitzer (2005) postulated that individuals are more likely to misattribute emotions when the nature of the judgment task matches the dimensions of the incidental emotion. In their studies, Dunn and Schweitzer (2005) found that individuals misattributed incidental emotions characterized by other-person control (e.g., anger and gratitude) when they made judgments about other people. Interestingly, individuals did not

misattribute incidental emotions characterized by individual control (emotions such as guilt and pride that are typically triggered by one's own actions) when making judgments about other people. Dunn and Schweitzer (2005) found that people who experience incidental anger are far less trusting than are people who experience incidental gratitude.

In our studies, participants made judgments that involve relying upon the advice of others. We expect emotions characterized by high other-person control (e.g., anger and gratitude) to be misattributed in these other-person related judgments. We expect trust to play an important role in the advice-taking process. Prior research has identified trust as a key moderator of advice taking (Sniezek & Van Swol, 2001). The more individuals trust their advisors, the more influenced they are by the advice they receive. We integrate Dunn and Schweitzer's (2005) findings linking emotions and trust with Sniezek and Van Swol's (2001) findings linking trust and advice taking to test the thesis that incidental emotions influence how much individuals trust others and how receptive they are to advice. Specifically, we test the following hypotheses:

Hypothesis 1: Compared to individuals in a neutral state, individuals who experience incidental anger will be less receptive to advice.

Hypothesis 2: Compared to individuals in a neutral state, individuals who experience incidental gratitude will be more receptive to advice.

Hypothesis 3: Trust will mediate the relationship between incidental emotions and reliance upon advice.

We do not develop specific hypotheses with respect to the effect of incidental emotions on judgment accuracy. We expect incidental emotions to influence how receptive people are to advice, but the effects of incidental emotions on accuracy will depend very heavily upon characteristics of the decision context. Specifically, the effects of incidental emotions on

judgment accuracy will be influenced by how accurate decision makers' initial estimates are, how accurate the advice is, and how receptive decision makers are to advice in a neutral emotional state (e.g., by factors such as how much education the advisor has). For example, if individuals are generally unreceptive to advice, have accurate estimates, and receive bad advice, incidental gratitude, which we expect to cause individuals to increase their reliance upon advice, is likely to harm judgment accuracy. If, however, individuals are generally unreceptive to advice, have inaccurate estimates, and receive good advice, incidental gratitude is likely to improve judgment accuracy.

### *Overview of Present Research*

We test our hypotheses in two studies. In our first study, we investigate the effects of incidental anger and incidental gratitude on advice taking. In our second study, we explore the role of trust in mediating the influence of emotions on advice taking. We investigate these hypotheses in a context in which participants typically underweight advice.

## **Experiment 1**

### **Methods**

Participants. One hundred nine undergraduates (50% male) at Carnegie Mellon University participated in the study in exchange for course credit in their introductory business courses. Participants' ages ranged from 18 to 24 ( $M = 20.28$ ,  $SD = 1.23$ ). Participants were randomly assigned to one of three emotion-induction conditions.

Design and Procedure. We asked participants to engage in a repeated judgment task. Participants sat in private cubicles with no visual access to other participants. To mitigate potential demand effects, we informed participants that the experiment included two unrelated short studies. Participants listened to an audio clip that explained the task entitled "weight



estimation study.” While listening to the audio clip, participants had an instruction sheet that included a screen shot from Part I of the study. Once participants finished listening to the audio clip, a new screen appeared which prompted participants to: *“Please click continue when you are ready to begin Part I of the Weight Estimation Study (Study 1).”*

*Estimation task (Part I).* Part I of the weight estimation study consisted of an estimation task with 3 rounds. In each round, participants saw a picture of a person and were asked to estimate the weight of the person in the picture.

*Measure of baseline affect.* At the end of Part I of the weight estimation study, we measured participants’ baseline affect. The instructions read, *“On the next page, you will see a number of words that describe different feelings and emotions. Read each item and then click the appropriate answer for that word. Indicate to what extent you feel each emotion RIGHT NOW.”* Drawing on prior studies (Lerner & Keltner, 2001; Lerner, Small, & Loewenstein, 2004), participants completed a commonly used affect inventory (Gross, Sutton, & Ketelaar, 1998) that asked them to rate the extent to which they presently felt each of 19 different emotion items on a 9-point scale.<sup>1</sup> The response scale ranged from 0 (not at all) to 8 (more strongly than ever).

*Emotion induction.* We used induction procedures very similar to those used in prior studies (e.g., Lerner et al., 2004). Our instructions explained the task as one assessing imagination: *“For Study 2, we will ask you to view a short video clip. After the video clip, we will have you reflect on the video clip in writing for about five minutes. Later on we will ask you some more questions about the video clip and your experience watching it. Just as a reminder, you are free to discontinue the study at any time without penalty. If at any point you wish to cease watching the clip, you may cover your eyes, stop listening, and/or stop watching all*

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<sup>1</sup> The emotions were: afraid, amused, angry, grateful, bored, cheerful, depressed, disgusted, fearful, furious, happy, indifferent, mad, appreciative, nervous, neutral, thankful, sad, unemotional.

together. Before viewing the video clip, we would like you to sit back and relax for a minute or so. Try to clear your mind and take a couple of deep breaths. This will help you focus on the imagination study.”

Participants were randomly assigned to one of three emotion induction conditions: a gratitude condition, an anger condition, or a neutral condition. As in prior emotion research (Lerner et al., 2004), we showed participants one of three different video clips. In the anger condition, participants watched an angry video clip (from the movie *My Bodyguard*), portraying a man being treated unfairly. In the gratitude condition, participants watched a gratitude video clip (from the movie *Awakenings*), showing a scene in which a man receives an unexpected favor from his co-workers. In the control condition, participants watched a neutral clip (from a *National Geographic* special), portraying fish at the Great Barrier Reef.<sup>2</sup> Each clip lasted less than 4 minutes. Immediately after viewing the clips, participants wrote about how they would feel if they were in the situation depicted in the clip (anger condition and gratitude condition) or about their daily activities (neutral condition). After the writing task, participants were given instructions for the second part of the weight estimation study.

*Estimation task (Part II).* In Part II of the weight estimation study, participants viewed the same pictures they saw in the first part of the weight estimation study. Across three rounds, we asked participants to provide estimates for the weight of the person in the picture. This time, however, we provided participants with the estimates that another participant had purportedly made for the same set of photos. We kept these values constant across participants and conditions (i.e., each participant received the same set of estimates from “another participant” for

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<sup>2</sup> While both the neutral clip and the anger clip have been previously used in emotion research, the gratitude clip (1:02:34 to 1:04:02 in *Awakenings*, ISBN-0-8001-7736-3) was created by the authors and used for the first time in the studies presented here after thorough pre-testing.

each of the three pictures). We determined these values prior to the study. Each value was equal to the true weight plus or minus a random number between 2 and 10 pounds.

*Self-report questionnaire.* After completing Part II of the Weight Estimation Study, participants completed a measure of subjective feelings (Lerner & Keltner, 2001; Lerner et al., 2004) which included the same list of emotions we used to measure participants' baseline affect. The instructions for this part of the experiment read: "*Please think back to the writing task and video clip from the Imagination Study (Study 2). On the following page, please indicate to what extent the video clip and writing task made you feel each emotion. A "0" on this scale means that you did not experience the emotion at all. An "8" means that you experienced the emotion more strongly than ever before.*" These emotion manipulation checks were included in the study after the main dependent variable since prior work has shown that labeling one's feelings after an incidental emotion induction can reduce the effect of such emotions (Keltner, Locke, & Audrain, 1993; Schwarz & Clore, 1983).

We aggregated responses to nine of these items to create composite measures of gratitude, neutral affect, and anger. To measure gratitude, we averaged responses for *grateful*, *appreciative*, and *thankful* ( $\alpha = .96$ ). To measure neutral affect, we averaged responses for *neutral*, *indifferent*, and *unemotional* ( $\alpha = .88$ ). To measure anger, we averaged responses for *angry*, *furious*, and *mad* ( $\alpha = .98$ ).

*Final questionnaire and debriefing.* Finally, participants provided demographic information, and we concluded by informing participants that the film clip could have caused distress and that the feelings would wear away (Keltner et al., 1993; Schwarz & Clore, 1983). Participants reported enjoying the study, and no participants reported an adverse reaction.

*Dependent measure.* As in prior advice taking research, we measured the extent to which participants relied upon advice by using the “weight of advice” (WOA) measure to gauge the extent to which participants revised their estimates in the direction of the other participant’s estimate (Harvey & Fischer, 1997; Yaniv & Foster, 1997). The WOA is a ratio measure that varies from zero (when the final estimate is equal to the initial estimate and the advice has no influence on the final estimate) to one (when the final estimate is exactly the same as the advice).

The measure is computed as follows:  $WOA = \frac{|final\ estimate - initial\ estimate|}{|advice - initial\ estimate|}$ . WOA values between

0 and 1 indicate partial discounting of advice. If participants are equally well informed, they should equally weight their own and another person’s estimate, and the normative WOA score is 0.5 (Larrick & Soll, 2006); WOA values less than 0.5 indicate underweighting of advice and WOA values greater than 0.5 indicate overweighting of advice.

## **Results**

In both Study 1 and Study 2, we first conducted analyses including gender and age as independent variables. In Study 2, we also included occupational status as an independent variable. We found no main effects or interaction effects for any of these demographic variables, and we thus report our findings collapsed across demographic groups.

Emotions manipulation check. In analyzing our results, we compared responses to the emotion measures across conditions. We report these results in Table 1. Consistent with our manipulations, participants in the gratitude condition reported more gratitude than either anger ( $t[70] = 9.51, p < .001, d = 2.27$ ) or neutral feelings ( $t[70] = 5.71, p < .001, d = 1.36$ ).

Participants in the anger condition reported more anger than either gratitude ( $t[70] = 7.45, p < .001, d = 1.78$ ) or neutral feelings ( $t[70] = 7.00, p < .001, d = 1.67$ ). Participants in the neutral

condition reported feeling more neutral than either grateful ( $t[72] = 2.84, p < .01, d = 0.67$ ) or angry ( $t[72] = 7.00, p < .001, d = 1.65$ ).

Advice taking. Supporting our thesis, results from a repeated-measures ANOVA demonstrate that the emotion manipulations significantly influenced advice-taking,  $F(2, 91) = 28.76, p < .001, \eta^2 = .39$  (see Table 2). The mean WOA in the gratitude condition was significantly higher than it was in both the neutral condition ( $t[71] = 4.89, p < .001, d = 1.16$ ) and the anger condition ( $t[70] = 6.96, p < .001, d = 1.66$ ). The mean WOA in the anger condition was significantly lower than it was in the neutral condition ( $t[71] = 2.45, p = .017, d = 0.58$ ). These results demonstrate that incidental emotions influence advice taking.

Judgment accuracy. Our results show that the emotion manipulations significantly influenced the accuracy of participants' final estimates,  $F(2, 106) = 3.89, p = .023, \eta^2 = .07$  (see Table 3). For each judgment, we measured accuracy by computing the absolute difference between the true weight and the participant's estimate. Smaller values represent greater accuracy. As expected, there was no difference in the accuracy of participants' initial estimates across conditions ( $p = .58$ ). However, the final estimates of participants in the gratitude condition were significantly more accurate than they were for people in both the neutral condition ( $t[71] = 2.18, p = .033, d = 0.51$ ) and the anger condition ( $t[70] = 2.56, p = .013, d = 0.60$ ). Similarly, accuracy improved more in the gratitude condition than it did in both the neutral condition ( $t[71] = 3.67, p < .001, d = 0.86$ ) and the anger condition ( $t[70] = 3.38, p = .001, d = 0.79$ ). We conducted mediation analysis (Baron & Kenny, 1986), and we found that participants' use of advice (measured by WOA) mediated the relationship between the emotion condition and the accuracy of final estimates (Sobel test,  $Z = 3.91, p < .001$ ). We depict these mediation results in Figure 1.

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Insert Figure 1 about here  
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## **Discussion**

In Study 1, we find support for Hypotheses 1 and 2. Participants who experienced incidental gratitude weighed advice more heavily than did participants in a neutral state. Participants who experienced incidental anger weighed advice less heavily than did participants in a neutral state. Even though the emotions induced in this study were unrelated to the judgment task, we find that these emotions significantly changed the extent to which participants relied upon advice.

## **Experiment 2**

In our second study, we extend our investigation to explore the role of trust in mediating the relationship between emotions and advice taking. In our second study, we employ methods similar to those we used in Study 1.

## **Methods**

Participants. We recruited participants through ads in which participants were offered money to participate in an experiment. A total of 107 individuals (50% female) agreed to participate. The average age of participants was 21 ( $SD = 2.68$ ). Most participants were undergraduate students (95% of them) from local universities. Participants expected to participate in two unrelated studies. As in Study 1, participants were randomly assigned to one of three emotion-manipulation conditions. Participants received a flat payment of \$7 for their participation.

Materials and Procedure. We used similar methods to those we employed in Study 1, but in Study 2 we asked participants to answer trust inventory questions before they provided their second weight estimate (before Part II of the weight estimation study). These questions asked participants how much they trusted the participant whose estimates they received in the second part of the weight estimation study. Specifically, before Phase 2 we informed participants that, *“The person whose estimates you will be able to see previously participated in the weight estimation study. Although you have limited information about this participant, we would like you to evaluate this person and answer a number of questions. The questions are presented on the next screen. Please answer each of them on a 1-7 scale. Ratings range from 1 [not likely at all] to 7 [very likely]. We will refer to the participant as Participant 11.”*

The trust inventory measured expectations of trustworthiness and intentions to trust another person. Prior research has demonstrated that incidental emotions influence trust in unfamiliar targets (Dunn & Schweitzer, 2005), and in this study we asked participants to report how much they trusted the participant whose estimates they received. We used an adapted version of a 10-item trust inventory (see Dunn & Schweitzer, 2005; Johnson-George & Swap, 1982). We list the items we used in the Appendix. For each item (e.g., “I would expect Participant 11 to pay me back if I loaned him/her \$40”), participants chose a value from a 7-point scale (1: not at all likely, 7: very likely). The 10 trust inventory items were closely related ( $\alpha = .95$ ), and we used an average of the 10 questions for our analyses.

## **Results**

Emotions manipulation check. As in Study 1, the emotion scales showed high internal consistency: gratitude ( $\alpha = .96$ ), anger ( $\alpha = .97$ ), and neutral affect ( $\alpha = .89$ ). We report average ratings for each emotion condition in Table 1. Participants in the gratitude condition reported

more gratitude than both anger ( $t[72] = 10.85, p < .001, d = 2.56$ ) and neutral feelings ( $t[72] = 5.05, p < .001, d = 1.19$ ). Participants in the anger condition reported more anger than both gratitude ( $t[64] = 6.49, p < .001, d = 1.62$ ) and neutral feelings ( $t[72] = 5.14, p < .001, d = 1.21$ ). Participants in the neutral condition reported feeling more neutral than either grateful ( $t[72] = 4.64, p = .006, d = 1.09$ ) or angry ( $t[72] = 8.42, p < .001, d = 1.98$ ).

The effect of emotions on trust. Our emotion manipulations significantly influenced participants' trust in their advisor,  $F(2, 104) = 79.62, p < .001, \eta^2 = .61$ . Participants in the gratitude condition were significantly more trusting than were participants in the neutral condition ( $M = 4.67, SD = 0.83$  versus  $M = 2.84, SD = 0.64, t[72] = 10.64, p < .001, d = 2.51$ ) and the anger condition ( $M = 2.39, SD = 0.95, t[68] = 10.74, p < .001, d = 2.60$ ). Participants in the anger condition were significantly less trusting than were participants in the neutral condition ( $t[68] = 2.32, p = .02, d = 0.56$ ).

Advice taking. As in Study 1, and supporting our thesis, the emotion manipulations significantly influenced participants' use of advice,  $F(2, 103) = 27.28, p < .001, \eta^2 = .35$  (see Table 2). Participants weighed advice more heavily in the gratitude condition than in both the neutral condition ( $t[72] = 5.00, p < .001, d = 1.18$ ) and the anger condition ( $t[68] = 6.70, p < .001, d = 1.62$ ). Participants weighed advice less heavily in the anger condition than they did in the neutral condition ( $t[68] = 2.11, p = .039, d = 0.51$ ).

Judgment accuracy. Consistent with the results of Study 1, we found a significant effect of emotions on the accuracy of participants' final estimates,  $F(2, 104) = 3.20, p < .05, \eta^2 = .06$  (see Table 3). While the accuracy of participants' initial estimates did not differ across conditions ( $p = .97$ ), the accuracy of final estimates was significantly higher for people in the gratitude condition than it was for people in both the neutral condition ( $t[72] = 1.68, p = .097, d$



= 0.39) and the anger condition ( $t[68] = 2.41, p = .019, d = 0.57$ ). Similarly, accuracy improved more in the gratitude condition than it did in both the neutral condition ( $t[72] = 2.11, p = .039, d = 0.49$ ) and the anger condition ( $t[68] = 3.80, p < .001, d = 0.93$ ). The WOA values mediated the relationship between emotions and accuracy (see Figure 2; Sobel test,  $Z = 5.07, p < .001$ ).

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 Insert Figure 2 about here  
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Mediation analysis. We next tested the role of trust in mediating the influence of incidental emotions on advice taking (Baron & Kenny, 1986). In our first regression, we used emotion as the independent variable (1 = gratitude, 0 = anger) and the WOA values as the dependent variable, controlling for round (a repeated measure). As expected, this relationship was significant ( $\beta = .34, p < .001$ ). In the second regression, we tested the relationship between emotion and trust, controlling for round. The relationship between emotion and trust was also significant and positive ( $\beta = 2.29, p < .001$ ), indicating that those in the grateful condition reported higher ratings for trust in the advisor than did those in the anger condition. In the final step, we included emotion, trust, and round as independent variables and WOA as the dependent variable. Supporting our third hypothesis (Sobel test,  $Z = 4.23, p < .001$ ), the path between incidental emotion and advice became insignificant ( $\beta = .12, p = .06$ ) when the direct influence of trust was included in the regression ( $\beta = .10, p < .001$ ). We depict the mediation results in Figure 3.

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 Insert Figure 3 about here  
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## **Discussion**

We find that incidental emotions influenced how receptive participants were to advice, and that trust mediated the relationship between incidental emotions and advice taking. Participants who experienced incidental gratitude were more trusting and more receptive to advice than were participants in a neutral emotional state. Participants who experienced incidental anger were less trusting and less receptive to advice than were participants in a neutral emotional state.

### **General Discussion and Conclusion**

Across two studies, we show that incidental emotions influence how receptive people are to advice. Participants who experienced incidental gratitude relied upon advice more than participants in the neutral condition did, and participants in the neutral condition relied upon advice more than participants who experienced incidental anger did. We also find that participants who felt incidental gratitude trusted their advisors more than did participants who felt incidental anger, and that participants' feelings of trust mediated the relationship between incidental emotions and advice taking. In our setting, the advice participants received was helpful and greater reliance upon advice improved accuracy. As a result, participants who experienced gratitude (and relied more heavily upon advice) improved their accuracy the most, and participants who experienced anger (and relied less heavily upon advice) improved their accuracy the least.

In our studies, we focused on incidental emotions, emotions that are normatively unrelated to the actual decision. In practice, people are influenced by both incidental emotions (emotion unrelated to the decision) and directed emotions (emotions related to the decision context) to influence advice taking. In our experiments, we only focus on incidental emotions

because these emotions offer a clean and conservative test of the role of emotions in the advice taking process. In practice, the influence of emotions on advice use is likely to be far greater than what we observe in these studies.

Our findings contribute to the literature on advice taking in an important way. Prior research suggests that individuals are more receptive to advice when they have rational reasons for increasing their reliance upon advice. For example, prior work demonstrates that people rely on advice more heavily when the advisor has more experience and more expertise (e.g., Feng & MacGeorge, 2006; Harvey & Fischer, 1997; Snizek et al., 2004). Our results demonstrate that normatively irrelevant factors, such as incidental emotions, also influence how heavily individuals weigh advice.

One important implication of this work is that we expect advisors, such as consultants and policy makers, who generate anger or are even associated with something that triggers anger, to be less trusted and less influential than advisors who are not associated with anger. Conversely, we expect advisors who are able to generate gratitude (e.g., by causing targets to reflect on their good fortune) to engender more trust and to be more influential than advisors who do not generate feelings of gratitude. It is important to note, however, that advisors may encounter challenges in generating gratitude. For example, an advisor might generate gratitude by offering a gift to the target. If, however, the gift is perceived by the target to be a crude gesture designed to curry favor, the act of giving gift may backfire.

One potential direction for future research is the study of emotional intelligence with respect to advice taking. People high in emotional intelligence are able to recognize and change the emotions of others (Barling, Slater, & Kelloway, 2000; Goleman, 2005). Our results demonstrate that this sensitivity and ability to change others' emotions may help advisors choose

favorable times and manipulate circumstances so that the advice they give will be particularly influential.

Our findings suggest that people receiving advice should be mindful of their emotions. People frequently receive advice before making important decisions, and our results identify conditions under which people might overweight bad advice or underweight good advice. Before consulting others, we should be sure to ask ourselves, are we blinded by anger or are we feeling the love?

## **Appendix**

### *Trust Inventory*

- (1) I would give Participant 11 an important letter to mail after s/he mentions that s/he is stopping by the post office today.
- (2) I could rely on information Participant 11 provides to me.
- (3) If Participant 11 and I decided to meet for coffee, I would be certain s/he would be there.
- (4) I would expect Participant 11 to tell me the truth if I asked him/her for feedback on an idea related to my job or studies.
- (5) If Participant 11 was late to a meeting or an appointment, I would guess there was a good reason for the delay.
- (6) Participant 11 would never intentionally misrepresent my point of view to others.
- (7) I would expect Participant 11 to pay me back if I loaned him/her \$40.
- (8) If Participant 11 laughed unexpectedly at something I did or said, I would know s/he was not being unkind.
- (9) If Participant 11 gave me a compliment on my haircut I would believe s/he meant what was said.
- (10) If Participant 11 borrowed something of value and returned it broken, s/he would offer to pay for the repairs.

*Note:* The trust inventory was adapted from Johnson-George and Swap (1982).

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## Tables

Table 1

*Summary of emotion manipulation checks. Each cell reports the average rating across three items for each target emotion. We report standard deviations in parentheses*

	Study 1: Average rating			Study 2: Average rating		
	Anger condition	Neutral condition	Gratitude condition	Anger condition	Neutral condition	Gratitude condition
<i>Angry</i>	5.5 (2.25)	1.4 (0.84)	1.7 (0.90)	4.6 (1.96)	1.2 (0.46)	1.4 (0.71)
<i>Unemotional</i>	2.3 (1.63)	4.1 (2.20)	2.7 (1.93)	2.3 (1.62)	4.1 (2.00)	2.9 (1.91)
<i>Grateful</i>	2.0 (1.78)	2.8 (1.58)	5.5 (2.23)	1.8 (1.47)	2.2 (1.40)	5.2 (2.03)

Table 2

*Summary of WOA results for Study 1 (N = 109; 50% male) and Study 2 (N = 107; 50% male).*

*We report standard deviations in parentheses*

Study 1: Average weight of advice			Study 2: Average weight of advice		
Anger condition (N = 36)	Neutral condition (N = 37)	Gratitude condition (N = 36)	Anger condition (N = 33)	Neutral condition (N = 37)	Gratitude condition (N = 37)
0.17 (0.14)	0.27 (0.19)	0.55 (0.29)	0.18 (0.14)	0.26 (0.18)	0.52 (0.27)

Table 3

*Summary of accuracy results. We report standard deviations in parentheses*

	<b>Study 1: Average values</b>			<b>Study 2: Average values</b>		
	Anger condition	Neutral condition	Gratitude condition	Anger condition	Neutral condition	Gratitude condition
<i>Accuracy of final estimates</i> <sup>1</sup>	19.40 (11.59)	17.29 (7.37)	13.63 (6.95)	20.82 (10.14)	18.74 (8.21)	15.52 (8.25)
<i>Improvement in accuracy</i> <sup>2</sup>	4.65 (4.43)	4.53 (3.53)	9.52 (7.46)	3.49 (2.56)	5.46 (4.51)	8.30 (6.84)

<sup>1</sup> We computed accuracy of final estimates as the absolute difference between each participant's final estimates and the true weight of the person shown in the photograph.

<sup>2</sup> We computed improvement in accuracy as the difference between the accuracy of each participant's initial estimates and the accuracy of their final estimates.

### Figures Captions

*Figure 1.* Mediation analysis of WOA, Study 1. We report standardized regression coefficients and their significance above each arrow indicating the effect of one variable in predicting another. For the effect of incidental emotions on accuracy, we report the total effect of the IV on the DV above the arrow, and the coefficient computed when the mediator is also included in the regression in parenthesis below the arrow. Note that \*  $p < .05$  \*\*  $p < .01$  \*\*\*  $p < .001$

*Figure 2.* Mediation analysis of WOA, Study 2. We report standardized regression coefficients and their significance above each arrow indicating the effect of one variable in predicting another. For the effect of incidental emotions on accuracy, we report the total effect of the IV on the DV above the arrow, and the coefficient computed when the mediator is also included in the regression in parenthesis below the arrow. Note that \*  $p < .05$  \*\*  $p < .01$  \*\*\*  $p < .001$

*Figure 3.* Mediation analysis of trust, Study 2. We report standardized regression coefficients and their significance above each arrow indicating the effect of one variable in predicting another. For the effect of incidental emotions on advice use, we report the total effect of the IV on the DV above the arrow, and the coefficient computed when the mediator is also included in the regression in parenthesis below the arrow. Note that \*  $p < .05$  \*\*  $p < .01$  \*\*\*  $p < .001$

Figures

Figure 1.

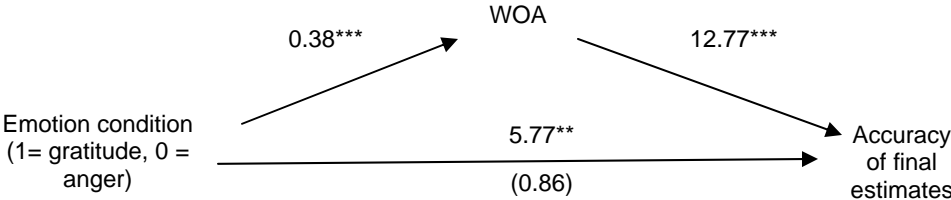


Figure 2.

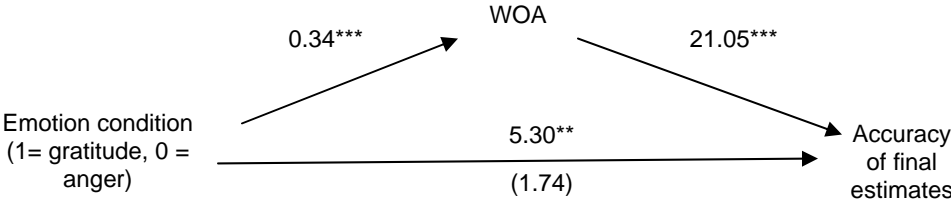


Figure 3.

