

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

Francesca Gino
Carnegie Mellon University

Maurice E. Schweitzer
University of Pennsylvania

Across 2 experiments, the authors demonstrate that emotional states influence how receptive people are to advice. The focus of these experiments is on incidental emotions, emotions triggered by a prior experience that is irrelevant to the current situation. The authors demonstrate that people who feel incidental gratitude are more trusting and more receptive to advice than are people in a neutral emotional state, and people in a neutral state are more trusting and more receptive to advice than are people who feel incidental anger. In these experiments, 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. The results offer insight into how people use advice, and the authors identify conditions under which leaders, policy makers, and advisors may be particularly influential.

Keywords: advice taking, emotions, gratitude, anger, trust

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 shown 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, 2004; Yaniv & Foster, 1997). 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 is costly to obtain (Gino, in press; Patt, Bowles, & Cash, 2006).

Although people may have many reasons to reject or to take the advice they receive from others, prior research has failed to account for 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 to 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 researchers have argued that complex decision processes are most

Francesca Gino, Tepper School of Business, Carnegie Mellon University; Maurice E. Schweitzer, The Wharton School, University of Pennsylvania.

The authors thank the Center for Behavioral Decision Research at Carnegie Mellon University for support. We thank Max Bazerman, Adam Galinsky, John Hershey, Howard Kunreuther, Robert Lount, Don Moore, Lamar Pierce, Gary Pisano, Scott Rick, Uri Simonsohn, and Francisco Veloso for their thoughtful comments on earlier drafts of the article.

Correspondence concerning this article should be addressed to Francesca Gino, 5000 Forbes Avenue, Pittsburgh, PA 15213. E-mail: fgino@andrew.cmu.edu

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, research has shown that affect influences important organizational behaviors, such as prosocial 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) 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. (p. 534)

In this article, we are particularly interested in the relationship between affect and trust. Consistent with prior research (Rousseau, Sitkin, Burt, & Camerer, 1998), we define trust as “the willingness to accept vulnerability based upon positive expectations about another’s behavior” (Dunn & Schweitzer, 2005, p. 736). 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 found that negatively valenced emotions—such as anger—decrease trust, and positively valenced emotions—such as happiness and gratitude—increase trust.

Other work has shown 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 shown 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, they found that individuals misattributed incidental emotions characterized by other-person control (e.g., anger and gratitude) when they made judgments about other people. It is interesting that 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 found that people who experience incidental anger are far less trusting than are people who experience incidental gratitude.

In our experiments, 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 are less receptive to advice.

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

Hypothesis 3: Trust mediates 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 may depend very heavily upon characteristics of the decision context. Specifically, the effects of incidental emotions on judgment accuracy may 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 and have accurate estimates, and they 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 and have inaccurate estimates, and then they

receive good advice, incidental gratitude is likely to improve judgment accuracy.

Overview of Present Research

We test our hypotheses in two experiments. In our first experiment, we investigate the effects of incidental anger and incidental gratitude on advice taking. In our second experiment, 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

Method

Participants

One hundred nine undergraduates (54 male, 55 female) 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 years ($M = 20.28$, $SD = 1.23$). 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." When 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 that prompted participants to "Please click continue when you are ready to begin Part I of the Weight Estimation Study (Study 1)."

Estimation task (Part 1). Part 1 of the weight estimation study consisted of an estimation task with three rounds. In each round, participants saw a picture of a person and then estimated the weight of the person in the picture.

Measure of baseline affect. At the end of Part 1 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), we had participants complete 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.¹ 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 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 coworkers. In the control condition, participants watched a neutral clip (from a *National Geographic* special), portraying fish at the Great Barrier Reef.² Each clip lasted less than 4 min. 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 2). In Part 2 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 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 2 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.

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

² Although both the neutral clip and the anger clip have been previously used in emotion research (see, e.g., Gross & Levenson, 1995), 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 pretesting.

These emotion manipulation checks were included in the study after the main dependent variable because 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 0 (when the final estimate is equal to the initial estimate and the advice has no influence on the final estimate) to 1 (when the final estimate is exactly the same as the advice). The measure is computed as follows:

$$\text{WOA} = \frac{|\text{final estimate} - \text{initial estimate}|}{|\text{advice} - \text{initial estimate}|}$$

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 .5 (Larrick & Soll, 2006); WOA values less than .5 indicate underweighting of advice, and WOA values greater than .5 indicate overweighting of advice.

Results

In both Part 1 and Part 2, we first conducted analyses that included gender and age as independent variables. In Part 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,

Table 1
Average Ratings (and Standard Deviations) for Target Emotion Manipulation Checks

Target emotion	Condition		
	Anger	Neutral	Gratitude
Experiment 1			
Angry	5.5 (2.25)	1.4 (0.84)	1.7 (0.90)
Unemotional	2.3 (1.63)	4.1 (2.20)	2.7 (1.93)
Grateful	2.0 (1.78)	2.8 (1.58)	5.5 (2.23)
Experiment 2			
Angry	4.6 (1.96)	1.2 (0.46)	1.4 (0.71)
Unemotional	2.3 (1.62)	4.1 (2.00)	2.9 (1.91)
Grateful	1.8 (1.47)	2.2 (1.40)	5.2 (2.03)

$t(72) = 2.84$, $p < .01$, $d = 0.67$, or angry, $t(72) = 7.00$, $p < .001$, $d = 1.65$.

Advice Taking

Supporting our thesis, results from a repeated-measures analysis of variance 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, $F(2, 106) = 3.89$, $p = .023$, $\eta^2 = 0.07$ (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

Table 2
Summary of Weight of Advice Results

Condition	M	SD	n
Experiment 1 ^a			
Anger	.17	.14	36
Neutral	.27	.19	37
Gratitude	.55	.29	36
Experiment 2 ^b			
Anger	.18	.14	33
Neutral	.26	.18	37
Gratitude	.52	.27	37

^a $N = 109$; 54 male. ^b $N = 107$; 54 male.

Table 3
Final Estimates and Improvements in Accuracy (and Standard Deviations)

Accuracy	Condition		
	Anger	Neutral	Gratitude
Experiment 1			
Final estimates	19.40 (11.59)	17.29 (7.37)	13.63 (6.95)
Improvement	4.65 (4.43)	4.53 (3.53)	9.52 (7.46)
Experiment 2			
Final estimates	20.82 (10.14)	18.74 (8.21)	15.52 (8.25)
Improvement	3.49 (2.56)	5.46 (4.51)	8.30 (6.84)

Note. Accuracy of final estimates is computed as the absolute difference between each participant's final estimates and the true weight of the person shown in the photograph. Improvement in accuracy is computed as the difference between the accuracy of each participant's initial estimates and final estimates.

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.

Discussion

In Experiment 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 experiment, we extend our investigation to explore the role of trust in mediating the relationship between emo-

tions and advice taking. In Experiment 2, we employ methods similar to those we used in Experiment 1.

Method

Participants

We recruited participants through ads in which participants were offered money to participate in an experiment. A total of 107 individuals (54 male, 53 female) agreed to participate. The average age of participants was 21 years ($SD = 2.68$). Ninety-five percent of participants were undergraduate students from local universities. Participants expected to participate in two unrelated studies. As in Experiment 1, participants were randomly assigned to 1 of 3 emotion-induction conditions. Participants received a flat payment of \$7 for their participation.

Materials and Procedure.

We used similar methods to those we employed in Experiment 1, but in Experiment 2 we asked participants to answer trust inventory questions before they provided their second weight estimate (before Part 2 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 Part 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*

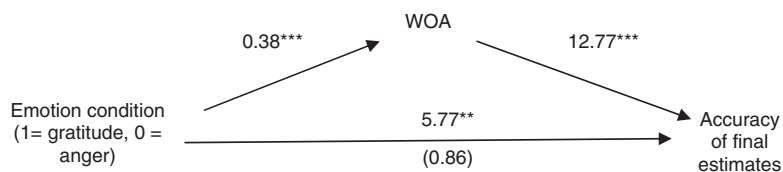


Figure 1. Mediation analysis of weight of advice (WOA) for Experiment 1. Standardized regression coefficients and their significance are reported above each arrow, indicating the effect of one variable in predicting another. For the effect of incidental emotions on accuracy, the total effect of the independent variable on the dependent variable is reported above the arrows, and the coefficient computed when the mediator is included in the regression is reported below the base arrow in parentheses. ** $p < .01$. *** $p < .001$.

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, $M = 4.67, SD = 0.83$ vs. $M = 2.84, SD = 0.64$; $t(72) = 10.64, p < .001, d = 2.51$; 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 Experiment 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, $Z = 5.07, p < .001$).

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 ($1 = \text{gratitude}, 0 = \text{anger}$) and the WOA values as the dependent variable, controlling for round (a repeated measure). As expected, this relationship was significant ($B = 0.34, p < .001$). 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 ($B = 2.29, p < .001$), 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 ($B = 0.12, p = .06$) when the direct influence of trust was included in the regression ($B = 0.10, p < .001$). We depict the mediation results in Figure 3.

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.

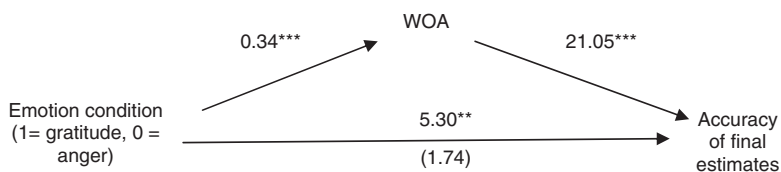


Figure 2. Mediation analysis of weight of advice (WOA) for Experiment 2. Standardized regression coefficients and their significance are reported above each arrow, indicating the effect of one variable in predicting another. For the effect of incidental emotions on accuracy, the total effect of the independent variable on the dependent variable is reported above the arrows, and the coefficient computed when the mediator is included in the regression is reported below the base arrow in parentheses. ** $p < .01$. *** $p < .001$.

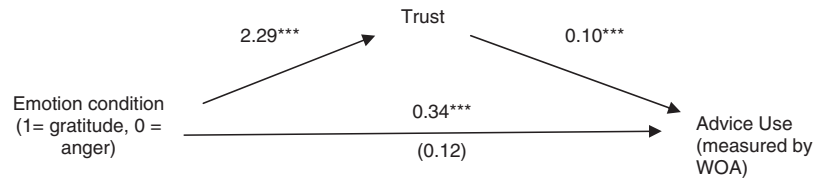


Figure 3. Mediation analysis of trust for Experiment 2. Standardized regression coefficients and their significance are reported above each arrow, indicating the effect of one variable in predicting another. For the effect of incidental emotions on advice-use, the total effect of the independent variable on the dependent variable is reported above the arrow, and the coefficient computed when the mediator is also included in the regression is reported below the base arrow in parentheses. WOA = weight of advice. *** $p < .001$.

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 did participants in the neutral condition, and participants in the neutral condition relied upon advice more than did participants who experienced incidental anger. We also find that participants who felt incidental gratitude trusted their advisors more than participants who felt incidental anger, and 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 focus only 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 has suggested 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; Sniezek 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 who 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 a 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 to choose favorable times and to 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?

References

- Barling, J., Slater, F., & Kelloway, E. K. (2000). Transformational leadership and emotional intelligence: An exploratory study. *Leadership & Organizational Development Journal, 21*, 157–161.
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173–1182.
- Bartlett, M. Y., & DeSteno, D. (2006). Gratitude and prosocial behavior: Helping when it costs you. *Psychological Science, 17*, 319–325.
- Beal, D. J., Weiss, H. M., Barros, E., & MacDermid, S. M. (2005). An episodic process model of affective influences on performance. *Journal of Applied Psychology, 90*, 1054–1068.
- Brief, A. P., & Weiss, H. M. (2002). Organizational behavior: Affect in the workplace. *Annual Review of Psychology, 53*, 279–307.
- Dunn, J., & Schweitzer, M. (2005). Feeling and believing: The influence of emotion on trust. *Journal of Personality and Social Psychology, 88*, 736–748.
- Feng, B., & MacGeorge, E. L. (2006). Predicting responsiveness to advice: Characteristics of the problem, the advice-giver, and the recipient. *Southern Communication Journal, 71*, 67–85.
- Fiedler, K. (1991). On the task, the measures and the mood in research on affect and social cognition. In J. P. Forgas (Ed.), *Emotion and social judgments* (pp. 83–104). Oxford, United Kingdom: Pergamon.
- Forgas, J. P. (1995). Mood and judgment: The affect infusion model. *Psychological Bulletin, 117*, 39–66.
- Forgas, J. P. (1999a). Feeling and speaking: Mood effects on verbal

- communication strategies. *Personality and Social Psychology Bulletin*, 25, 850–863.
- Forgas, J. P. (1999b). On feeling good and being rude: Affective influences on language use and request formulations. *Journal of Personality and Social Psychology*, 76, 928–939.
- Forgas, J. P. (2002). Feeling and doing: The role of affect in social cognition and behavior. *Psychological Inquiry*, 9, 205–210.
- George, J. M. (1990). Personality, affect, and behavior in groups. *Journal of Applied Psychology*, 75, 107–116.
- George, J. M., & Brief, A. P. (1992). Feeling good–doing good: A conceptual analysis of the mood at work–organizational spontaneity relationship. *Psychological Bulletin*, 112, 310–329.
- George, J. M., Jones, G. R., & Gonzalez, J. A. (1998). The role of affect in cross-cultural negotiations. *Journal of International Business Studies*, 29, 749–772.
- Gino, F. (in press). Do we listen to advice just because we paid for it? The impact of advice cost on its use. *Organizational Behavior and Human Decision Processes*.
- Gino, F., & Moore, D. A. (2007). Effects of task difficulty on use of advice. *Journal of Behavioral Decision Making*, 20, 21–35.
- Goldsmith, D. J., & Fitch, K. (1997). The normative context of advice as social support. *Human Communication Research*, 23, 454–476.
- Goleman, D. (2005). *Emotional intelligence: Why it can matter more than IQ*. New York: Bantam.
- Gouaux, C. (1971). Induced affective states and interpersonal attraction. *Journal of Personality and Social Psychology*, 20, 37–43.
- Grandey, A. A. (2000). Emotion regulation in the workplace: A new way to conceptualize emotional labor. *Journal of Occupational Health Psychology*, 5, 95–110.
- Gross, J. J., & Levenson, R. W. (1995). Emotion elicitation using films. *Cognition & Emotion*, 9, 87–108.
- Gross, J. J., Sutton, S. K., & Ketelaar, T. (1998). Relations between affect and personality: Support for the affect-level and affective-reactivity views. *Personality and Social Psychology Bulletin*, 24, 279–288.
- Harvey, N., & Fischer, I. (1997). Taking advice: Accepting help, improving judgment, and sharing responsibility. *Organizational Behavior and Human Decision Processes*, 70, 117–133.
- Ilies, R., Wagner, D. T., & Morgeson, F. P. (2007). Explaining affective linkages in teams: Individual differences in susceptibility to contagion and individualism–collectivism. *Journal of Applied Psychology*, 92, 1140–1148.
- Isen, A. M. (1970). Success, failure, attention, and reactions to others: The warm glow of success. *Journal of Personality and Social Psychology*, 15, 294–301.
- Isen, A. M., & Levin, A. F. (1972). Effects of feeling good on helping: Cookies and kindness. *Journal of Personality and Social Psychology*, 21, 384–388.
- Johnson-George, C., & Swap, W. C. (1982). Measurement of specific interpersonal trust: Construction and validation of a scale to assess trust in a specific other. *Journal of Personality and Social Psychology*, 43, 1306–1317.
- Jones, G. R., & George, J. M. (1998). The Experience and Evolution of Trust: Implications for Cooperation and Teamwork. *Academy of Management Review*, 3, 531–546.
- Judge, T. A., & Ilies, R. (2004). Affect and job satisfaction: A study of their relationship at work and at home. *Journal of Applied Psychology*, 89, 661–673.
- Keltner, D., Locke, K. D., & Audrain, P. (1993). The influence of attributions on the relevance of negative feelings to personal satisfaction. *Personality and Social Psychology Bulletin*, 19, 21–29.
- Larrick, R. P., & Soll, J. B. (2006). Intuitions about combining opinions: Misappreciation of the averaging principle. *Management Science*, 52, 111–127.
- Lerner, J. S., & Keltner, D. (2001). Fear, anger, and risk. *Journal of Personality and Social Psychology*, 81(1), 146–159.
- Lerner, J. S., Small, D. A., & Loewenstein, G. (2004). Heart strings and purse strings: Carryover effects of emotions on economic decisions. *Psychological Science*, 15, 337–340.
- Loewenstein, G., & Lerner, J. S. (2003). The role of affect in decision making. In R. Davidson, K. Scherer, & H. Goldsmith (Eds.), *Handbook of affective science* (pp. 619–642). New York: Oxford University Press.
- Moran, S., & Schweitzer, M. (2008). When better is worse: Envy and the use of deception in negotiations. *Negotiation and Conflict Management Research*, 1, 3–29.
- O’Shea, J., & Madigan, C. (1997). *Dangerous company: The consulting powerhouses and the businesses they save and ruin*. New York: Random House.
- Patt, A., Bowles, H. R., & Cash, D. (2006). Mechanisms for enhancing the credibility of an adviser: Prepayment and aligned incentives. *Journal of Behavioral Decision Making*, 19, 347–359.
- Rousseau, D., Sitkin, S., Burt, R., & Camerer, C. (1998). Not so different after all: A cross-discipline view of trust. *Academy of Management Review*, 23, 393–404.
- Schwarz, N., & Clore, G. L. (1983). Mood, misattribution, and judgments of well-being: Informative and directive functions of affective states. *Journal of Personality and Social Psychology*, 45, 513–523.
- Schwarz, N., & Clore, G. L. (1988). How do I feel about it? Informative functions of affective states. In K. Fiedler & J. Forgas (Eds.), *Affect, cognition, and social behavior* (pp. 44–62). Toronto, Canada: Hogrefe.
- Shapiro, E., Eccles, R., & Soske, T. (1993). Consulting: Has the solution become part of the problem? *Sloan Management Review*, 34, 89–95.
- Smith, C., & Ellsworth, P. (1985). Patterns of cognitive appraisal in emotion. *Journal of Personality and Social Psychology*, 48, 813–838.
- Sniezek, J. A., Schrah, G. E., & Dalal, R. S. (2004). Improving judgment with prepaid expert advice. *Journal of Behavioral Decision Making*, 17, 173–190.
- Sniezek, J. A., & Van Swol, L. M. (2001). Trust, confidence, and expertise in a judge-advisor system. *Organizational Behavior and Human Decision Processes*, 84, 288–307.
- Veitch, R., & Griffitt, W. (1976). Good news–bad news: Affective and interpersonal effects. *Journal of Applied Social Psychology*, 6, 69–75.
- Yaniv, I. (2004). Receiving other people’s advice: Influence and benefit. *Organizational Behavior and Human Decision Processes*, 93, 1–13.
- Yaniv, I., & Foster, D. P. (1997). Precision and accuracy of judgmental estimation. *Journal of Behavioral Decision Making*, 10, 21–32.

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).

Received November 1, 2007

Revision received February 17, 2008

Accepted March 5, 2008 ■