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An "Uneasy Look at Performance Appraisal": Beliefs about Performance Appraisal Outcomes, Cognitive Appraisals, and Emotions as Antecedents of Upward Rating Distortion

Shirley ann Ashauer
University of Missouri-St. Louis

AN "UNEASY LOOK AT PERFORMANCE APPRAISAL": BELIEFS ABOUT PERFORMANCE APPRAISAL OUTCOMES, COGNITIVE APPRAISALS, AND EMOTIONS AS ANTECEDENTS OF UPWARD RATING DISTORTION

by

SHIRLEY A. ASHAUER
M.A., Industrial and Organizational Psychology, University of Missouri – St. Louis, 2006
B.S., Business Administration, Southern Illinois University at Edwardsville

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Therese H. Macan, Ph.D.
Chairperson

James Breaugh, Ph.D.

Stephanie Merritt, Ph.D

Deborah Balser, Ph.D.

Abstract

The face-to-face feedback element of performance appraisal has been described as the "Achilles' heel" of the entire process. Specifically, the upward distortion of ratings made for feedback purposes is believed to be a pervasive effect. Two studies were conducted to explore factors to help understand the upward distortion of ratings that must be fed back – the first using a survey design from actual work settings and the second conducted as a laboratory experiment. Findings in the first study revealed that, regardless of feedback valence, upward rating distortion was minimized as positive emotions and supervisor beliefs of beneficial outcomes increased, and as negative emotion and supervisor beliefs of harmful outcomes decreased. In the second study, beliefs of beneficial outcomes led to increased levels of hope, decreased levels of anxiety, and less upward rating distortion than beliefs of harmful outcomes. For beliefs of harmful outcomes, ratings were higher when made for face-to-face than anonymous purposes; however, differences in ratings were minimal for beliefs of beneficial outcomes regardless of feedback requirement.

An "Uneasy Look at Performance Appraisal:" Beliefs about Performance Appraisal Outcomes, Cognitive Appraisals, and Emotions as Antecedents of Upward Rating Distortion

Over 50 years ago, in his "uneasy look at performance appraisal," McGregor (1957) described the state of affairs in performance appraisal systems, and reported the reluctance of managers to deliver performance appraisal feedback. He noted:

> "Even managers who admit the necessity of appraisal programs frequently balk at the process – especially the interview part. As a result, companies do not communicate appraisal results to the individual, despite the general conviction that the subordinate has a right to know his superior's opinion so he can correct his weaknesses," (McGregor, 1957: 89).

In an effort to improve the performance appraisal feedback process, researchers began to focus on specific feedback-giving behaviors such as problem-solving, tell and sell, and tell and listen approaches (Maier, 1958). Despite efforts to train feedback-givers to improve their skills during role plays, Maier (1958) found that even trained clinicians soon became defensive when they faced difficulty during the interview as the subordinate questioned unfavorable evaluations. The researchers would interrupt the role play to discuss what was happening as soon as the feedback-giver's behavior became defensive. As the role play resumed, feedback-givers would again experience defensiveness when the subordinate questioned the evaluation - despite coaching during the "time out."

Almost thirty years later, Kikoski and Litterer (1983) reported considerable progress in the development of appraisal methodologies and the construction of valid and reliable instruments to measure performance, but also noted a continued concern about the actual process of feeding back performance appraisal. They reported in their analysis:

> "Despite considerable progress in a number of these areas, the delivery of performance appraisal still tends to be resisted, if not avoided by managers. *For the central difficulty remains: This occurs when the manager sits down to review face-to-face his subordinate's performance. The appraisal is the Achilles' heel of the entire process*," (Kikoski & Litterer, 1983: 33; italics added).

More recently, Muchinsky (2007) described the current climate of organizations regarding performance appraisal as one in which both the supervisor and subordinate are uneasy about the feedback session. He maintains that employees may become defensive about unfavorable feedback, and supervisors are often nervous about having to confront subordinates face-to-face with negative performance appraisals.

Yet, prior research suggests that accurate performance feedback is vital to improving performance (Ashford & Cummings, 1983; Carver & Scheier, 1981; Waung & Highhouse, 1997), and is a "well-established if not one of the best-established findings in the psychological literature" (Locke & Latham, 1990: 173). Research on performance appraisal and motivation has documented the need for employees to know how they are doing in their jobs (Cook, 1968; Deci, 1971; Hackman & Oldham, 1976; Tosi & Carroll, 1970). Further, a McKinsey and Company survey reports that managers consider candid feedback extremely important to their development, but they do not believe their companies do an effective job of providing it (Cannon & Witherspoon, 2005).

While considerable progress has been made over the past fifty years in performance appraisal research with respect to rating errors, rater training, and feedback-giving skills, the lack of research emphasis on the underlying social-psychological factors of the feedback-giving process has limited the progress of research in this important area of human resource systems (Ilgen & Knowlton, 1980; Landy & Farr, 1980; Judge & Ferris, 1993; Murphy & Cleveland, 1991). Given the acknowledgement by performance appraisal researchers that the "performance appraisal feedback enigma" has existed over the past several decades (Meyer, 1991), the paucity of empirical research examining the

underlying causes of supervisor's reluctance to deliver performance feedback is particularly surprising.

Moreover, although emotions such as anxiety, fear, and dread have been frequently mentioned as antecedents to the reluctance to deliver unfavorable feedback (Cannon & Witherspoon, 2005; Muchinsky, 2007), there has been a dearth of research that has empirically measured the influence of emotion in feedback delivery. Rather, most of the emphasis in performance appraisal research has been on cognitive influences in the rating processes. Yet, cognition, motivation, and emotion, or what Hilgard (1980) referred to as the "trilogy of mind," all play an integral role in influencing behavior in work settings (Lazarus, 1991b). More research is needed to understand the interplay of all three of these important constructs as they relate to performance appraisal, and specifically to the upward distortion of ratings that must be fed back.

While the reluctance to deliver unfavorable feedback may be manifested in behaviors to avoid, delay, or distort the feedback, the emphasis in the present study is on upward rating distortion. Organizations today require timely annual performance appraisals interviews, and so supervisors are less able to avoid or delay the delivery of performance appraisal. Rather, distorting ratings in an upward direction is more likely to occur, and is believed to be a pervasive effect in feedback giving (Tesser & Rosen, 1975; Fisher, 1979; Benedict & Levine, 1988). Relatively little research, however, has explored factors that alleviate the upward distortion of ratings that must be fed back.

The purpose of the present research was to address this gap across two studies by a) exploring the potential role of emotion and its antecedents in rating distortion and

b) investigating factors that may alleviate distortion. The first study explored the role of emotion and its antecedents in upward distortion using a survey design from actual work settings. Most research has examined factors that accentuate distortion, and this study also examined factors, such as positive emotion and supervisor beliefs, that may attenuate it. The second study was conducted as a laboratory experiment to investigate factors that might alleviate the upward distortion of ratings that must be fed back.

The failure to understand the underlying mechanisms behind face-to-face feedback may lead to policies in organizations that do not work as intended, because individuals are unwilling to deliver candid feedback (Colella, 2001). By exploring underlying mechanisms, the present research is an initial investigation to unravel the "performance appraisal enigma" that has troubled us over the past several decades.

Study 1

The purpose of this study was to examine the role of emotion and antecedents in upward rating distortion. Some research exists on factors that accentuate distortion, but relatively little research has explored factors that attenuate it. Previous research in the performance appraisal literature is reviewed, and then a theoretical framework for feeding back performance appraisal ratings is proposed along with hypotheses.

Prior Research on the Reluctance to Deliver Bad News

While relatively little research exists on the antecedents of behaviors to avoid, delay, or distort face-to-face feedback, the effects of delay and distortion themselves have been well documented (Tesser & Rosen, 1975; Tesser & Rosen, 1972; Tesser, Rosen, & Batchelor, 1972; Tesser, Rosen, & Conlee, 1972; Tesser, Rosen, & Tesser, 1971; Tesser, Rosen, & Waranch, 1973; Conlee & Tesser, 1973; Blumberg, 1972; Fisher, 1979; Bond

& Anderson, 1987; Benedict & Levine, 1988; Fried, Tiegs, & Bellamy, 1992; Stockford & Bissel, 1949). The MUM effect, or reluctance to transmit bad news to others, has been found to be a pervasive systematic bias in interpersonal communication (Tesser & Rosen, 1975; Blumberg, 1972; Fitts & Ravdin, 1953; Oken, 1961). Results of these studies imply that the person with troubles may be further disadvantaged by being insulated from full information concerning their problem (Tesser & Rosen, 1975). This previous research examines the MUM effect under conditions where the communicator and recipient are free of status differences, however, which is not the case in supervisor-subordinate interactions.

The effects of delay and distortion in supervisor-subordinate interactions have been examined in a few studies (Stockford & Bissel, 1949; Fisher, 1979; Benedict & Levine, 1988; Fried, Tiegs, & Bellamy, 1992; Ilgen & Knowlton, 1980; Antonioni, 1994; Klimoski & Inks, 1990). Stockford and Bissel (1949) found evidence in a field study that supervisors positively distorted performance appraisal ratings in anticipation of feeding back the ratings to subordinates. They obtained quarterly performance ratings made by supervisors in an aircraft assembly plant. These ratings had typically been kept secret from the employees. When supervisors were asked to re-evaluate the employees two weeks later and to conduct feedback sessions, the ratings increased significantly. The mean rating of the quarterly evaluations was 60, and the mean rating of the evaluations to be fed back to the same employees two weeks later was 84. These findings provided early evidence that ratings made for feedback purposes may be distorted (Fisher, 1979; Stockford & Bissel, 1949).

The effect was replicated in a lab study in which ratings that were to be fed back were significantly higher than ratings that were not to be fed back when subordinate performance was low, but there were no differences when performance was high (Fisher, 1979). Correlational evidence was found that supervisors anticipated less pleasant reactions from subordinates who were poor performers than high performers, and that they expected that subordinates who were given negative feedback would like them less (Fisher, 1979). While upward distortion was observed for only unfavorable performance in this lab study, Fisher (1979) recommended that future research explore the causes of upward distortion as well as the extent and impact of this phenomenon for both favorable and unfavorable performance in actual work settings.

In another lab study examining delay and distortion, Benedict and Levine (1988) reported upward distortion in the ratings of moderately high as well as moderately low performers in face-to-face feedback (although distortion was considerably larger for moderately low performers). These researchers speculated that the cause of delay and distortion was the anxiety associated with the rater's role, but no direct measures were actually taken of this emotion. Rather, a single item measure assessing if participants would be willing to serve as raters for future test evaluation projects was used to measure "discomfort." While more participants in the face-to-face condition were less willing to participate in future studies than those in the no feedback condition, the conclusion that anxiety was the cause of delay and distortion is speculative.

Villanova, Bernadin, Dahmus, and Sims (1993) developed the Performance Appraisal Discomfort Scale (PADS), a 20-item scale in which raters self-report the degree of discomfort felt in performance appraisal situations. They found correlational

evidence that rating inflation was related to high scores on the PADS scale. Emotion, however, was not assessed in this study, and causal relationships were not examined. Further research is needed to directly test the role of emotion and other antecedents in upward rating distortion. In sum, this stream of research has mostly speculated on the antecedents of upward distortion without directly measuring or manipulating the potential variables of interest.

Empirical Studies Examining Causes of Upward Rating Distortion

Only a handful of studies have examined the potential causes of upward distortion (Tesser & Rosen, 1975; Waung & Highhouse, 1997; Ilgen & Knowlton, 1980; Klimoski & Inks, 1990; Bond & Anderson, 1987). The most programmatic research has been conducted by social psychologists to examine the reluctance to transmit bad news or the MUM effect (Tesser & Rosen, 1975). These researchers attributed three general causes to the MUM effect: self-concern (fear of not being liked), other-concern (expect recipient to react emotionally), and concern with societal norms governing social interaction. Empirical studies provided mixed results on the need to be liked as a cause of the MUM effect, and more support for concern that recipients would react emotionally. When experimenters made the recipient's desire to hear bad news explicit, participants were more likely to convey the bad news (Tesser & Rosen, 1975).

These studies, however, were conducted in laboratory settings with introductory psychology students who were told that another student in the study (and who was a stranger) had received a call from home of either good or bad news. While the results of these studies have been informative, Tesser and Rosen (1975) explicitly state that the MUM effect occurs in the context of strangers of equal status who are reluctant to deliver

a message to call home about bad news. These relationships may not necessarily operate in the same manner in work settings and within relationships of unequal status such as supervisor-subordinate relationships.

In other research examining causal factors, Waung and Highhouse (1997) conducted two studies to examine concern for others (empathic buffering) and concern for self (fear of conflict) as possible causes of performance feedback inflation. They defined performance feedback inflation as the distortion of the actual feedback message, as opposed to rating inflation in which supervisors distort ratings as a result of anticipated feedback sessions. They posited that the degree to which empathic buffering and fear of conflict was operative would be contingent upon the feedback medium (face-to-face or tape recorded) of feedback presentation. Performance feedback inflation was measured by coding each statement made during the feedback session using a 5 point scale indicating the extent that the rater was communicating positive, versus negative, performance evaluations. In addition, quantitative ratings of upward distortion were assessed.

In both studies, students assessed their peers who were described as poor performers. In the first study, performance feedback and ratings were more inflated in the face-to-face versus tape-recorded condition. The authors inferred that fear of interpersonal conflict played a role in feedback and rating inflation, because greater inflation was exhibited in the face-to-face compared to the tape recorded feedback condition (Waung & Highhouse, 1997). No direct measure, however, of fear of conflict was taken, nor was this variable manipulated to assess possible causal influences. It is also plausible that alternative explanations such as fear of harming the peer's self esteem

or fear of not being liked (among other explanations) may have led to anxiety, and, subsequently, to feedback and rating inflation.

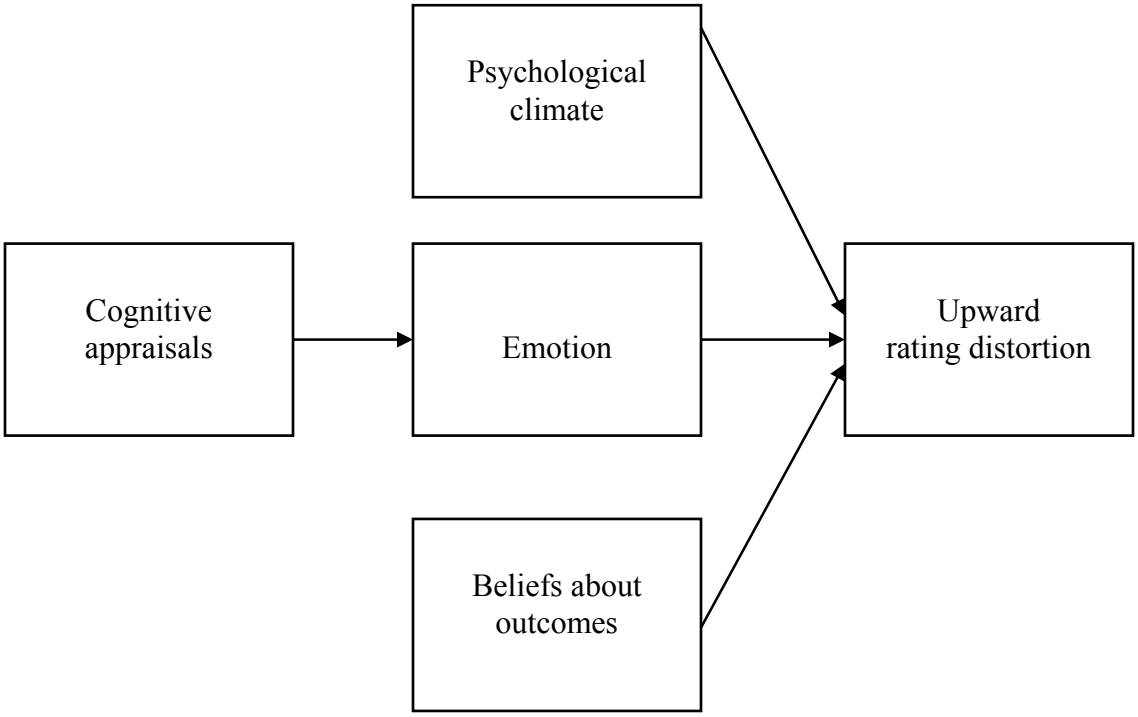
In the second study, a within subjects design was used. Self-reported trait empathy, experienced empathy, and fear of conflict were assessed. Participants evaluated two poor performing students in this study, and delivered face-to-face feedback to one student and a tape-recorded message to the second student. They were then asked to self report fear of conflict and empathy on the second feedback condition. Results approached significance ($p = .06$) for fear of conflict in the face-to-face condition. The authors noted the small sample size ($n = 33$) may have led to the nonsignificant results. In addition, the participants may have had difficulty separating reactions in the first feedback condition from the second in this within subjects design.

Results on the relationship between trait empathy and ratings were in an unexpected direction. When participants anticipated face-to-face feedback sessions, those low in trait empathy gave higher performance ratings than those high in trait empathy. The authors speculated that those with high empathy might have cared more about the ratee such that they felt accurate feedback was in the ratee's best interest. This explanation, however, was not directly tested. Thus, while these studies have provided important contributions to performance appraisal research, a number of methodological limitations exist. More research is needed to examine the causal factors underlying rating distortion.

A theoretical framework of the antecedents of feedback giving behavior (including rating distortion) is needed, and then empirical research is needed to examine the relationships within the model. The overall framework proposed in the present

research is presented in Figure 1, and builds on Larson's (1984) feedback-giving framework and cognitive-emotion theory (Lazarus & Folkman, 1984; Lazarus, 1991a).

Figure 1. Framework for antecedents of upward rating distortion.



Theoretical Framework for Feeding Back Performance Appraisal Ratings

Larson (1984) proposes a preliminary framework for feedback giving, in which antecedents fall into three general categories: cognitive, situational, and affective factors. First, cognitive antecedents are comprised of 1) the salience of a subordinate's task performance, 2) perceived subordinate responsibility, 3) implicit theories, and 4) explicit feedback policies. Of particular interest in the present study were supervisor theories, or supervisor beliefs and assumptions about the likely consequences of feeding back performance ratings. Supervisors develop their own theories about the impact that

feeding back performance ratings will have on their direct reports, and these theories exert a strong influence on behavior (Larson, 1984).

Second, situational antecedents involve 1) organizational norms and 2) task and outcome dependence. Organizational norms that are widely held by members of the organization influence the feedback behavior of supervisors (Larson, 1984). Specifically, organizational climate is based on employees' perceptions of what an organization is like in terms of practices, procedures, routines, and rewards (A.P. Jones & James, 1979; Rentsch, 1990; Schneider, 1990). The psychological climate variables of feedback environment (Steelman, Levy, & Snell, 2004) and perceptions of political considerations in appraisal (Tziner, A., Latham, G.P., Price, B.S., & Haccoun, R., 1996) were of interest in the present study.

Third, affective antecedents consist of 1) feedback valence, 2) affect toward the subordinate, and 3) affect about giving feedback. The framework proposes that affect about giving feedback will influence feedback giving behavior, and is moderated by the valence of the feedback. Larson (1984) notes that supervisors are generally reluctant to give direct reports feedback about poor performance, and there are three ways in which this reluctance might influence behavior: 1) avoid feedback altogether, 2) delay it, or 3) distort it.

While the framework proposes the influence of affect about giving feedback as an antecedent of feedback behavior, the influence of emotion is not explicated. Yet, emotions such as anxiety and fear have been frequently reported as those likely to be associated with the upward distortion of ratings that must be fed back (Fisher, 1979; Benedict & Levine, 1988; Waung & Highhouse, 1997; Muchinsky, 2007; Cannon &

Witherspoon, 2005; Muchinsky, 2007). Emotions, as opposed to affect, refer to a subset of the broader class of affective phenomenon (Diener, 1999; Ekman & Davidson, 1994).

Emotions fit into discrete categories of emotion families (i.e., fear, hope, interest, embarrassment), whereas affect is often conceptualized as varying along two dimensions: pleasantness and activation (Russell & Feldman Barrett, 1999) or positive and negative emotional activation (Tellgen, Watson, & Clark, 1999). Emotions are response tendencies that unfold over relatively short time spans (Fredrickson, 2001), as opposed to affect that is more long lasting. The more discrete conceptualization of emotions that unfold over short time spans, such as those in performance appraisal interviews, was investigated in the present research.

Emotion theorists maintain that an emotion begins with an individual's cognitive appraisal of the personal meaning of some antecedent event (Fredrickson, 2001; Lazarus, 1991a). Emotions are typically about some personally meaningful experience (in which they have an object), as opposed to affect, which is often object-less and more long lasting (Oatley & Jenkins, 1996; Russell & Feldman Barrett, 1999; Ryff & Singer, 2001). Emotions trigger specific action tendencies or impulses that are believed to serve an adaptive function (Frijda, 1986; Frijda, Kuipers, & ter Schure, 1989; Lazarus, 1991a; Levenson, 1994; Tooby & Cosmides, 1998).

In the present study, cognitive appraisals as antecedents of emotion were examined, in addition to supervisor's beliefs (personal theories) about the outcome of feeding back performance ratings. The specific processes within the framework are explicated in the following section.

Cognitive Appraisals as Antecedents of Emotion

According to Lazarus' cognitive-motivational-relational theory of emotion (Lazarus 1991a), emotions are generated by individual's appraisals of the personal significance of what is happening in an adaptational encounter with the environment. These cognitive appraisals are interpretations of the potential harm or benefit of an antecedent event to personal well-being, Each positive emotion is produced by a particular kind of appraised benefit, and each negative emotion by a specific kind of appraised harm (Smith & Lazarus, 1993). The quality and intensity of the emotional reaction depends on the cognitive appraisal about how one is doing with respect to goals in the encounter. Without an important stake or goal in the situation, an emotion is unlikely to occur (Lazarus, 1991a; Laazarus, 1991b; Lazarus, 1991c).

Emotion theorists conceptualize cognitive appraisals at two levels of analysis. The first level is molecular, and captures the specific questions or dimensions that individuals use to make appraisals of harm or benefit. The second level is molar, and combines the individual appraisal components into summaries, or gestalts of relational meaning, that are referred to as core relational themes (or core themes). That is, a core theme is the central (core) relational meaning of harm or benefit that underlies each of the emotions. Lazarus (1991a) maintains that associations of cognitive appraisals (core themes) with specific emotions occur in a universal pattern. For instance, the overall appraisal of an "uncertain threat" is the core theme that is associated with anxiety. In past research, core themes have demonstrated direct effects on their associated emotions after controlling for the contributions of the appraisal components, but appraisal components have not consistently exerted direct effects on emotion after controlling for

the contribution of core themes (Smith & Lazarus, 1993). Hence, in the present research, cognitive appraisals were investigated at the molar level (core themes).

There are two categories of cognitive appraisals – those that depict harm and those that depict benefit. First, the person-environment relationship can be appraised in a variety of ways as harmful, each of which corresponds to a cognitive appraisal leading to a distinct negative emotion. The cognitive appraisal associated with anxiety, for example, is threat (facing an uncertain, existential threat). The cognitive appraisal associated with guilt is self-blame (having transgressed a moral imperative).

On the other hand, there are different ways that the person-environment relationship can be appraised as a benefit, each of which corresponds to a unique cognitive appraisal leading to a positive emotion. For instance, the cognitive appraisal associated with hope is optimism (interpretation that the wished for improvement is possible). The cognitive appraisal associated with empathy is concern for another (being moved to offer help by another's suffering). The cognitive appraisal associated with interest is relevance (something important to me is happening in this situation).

Appendix A presents universal cognitive appraisals (core themes) and their related emotions as Lazarus (1991a) has categorized them. Cognitive appraisal/emotion relationships have been empirically documented in emotion research, although the focus has primarily been on negative emotions (Smith & Ellsworth, 1983; Smith, Haynes, Lazarus, & Pope, 1993; Smith & Lazrus, 1993; Ellsworth & Smith, 1988a; Ellsworth & Smith 1988b; Winter, 2000). In addition to the cognitive appraisal/emotion relationships that Lazarus (1991a) describes, Izard (1991) maintains that interest is the most prevalent emotion in day-to-day functioning. The emotion of interest (or curiosity) may be

particularly relevant in a performance appraisal context. Specifically, research suggests that a supervisor who is genuinely curious about what is leading to a direct report's poor performance may be more likely to inquire into what is happening in the direct report's situation and engage in candid feedback (Argyris & Schön, 1974; Schwarz, 2002). The curiosity of the supervisor may lead to more candid feedback and thereby reduce upward rating distortion. Thus, in the present study, the emotions of curiosity and interest with their related cognitive appraisals were included.

In a performance appraisal context, the supervisor's cognitive appraisal (core theme) will be related to its corresponding emotion. Because individuals may experience several emotions in the context of a person-environment encounter (Lazarus, 1991a), it is plausible that these various emotions are being generated by more than one appraisal of the situation. For instance, a supervisor may interpret feeding back a performance rating as an uncertain threat (leading to anxiety), and, at the same time, may also feel that the situation is hopeless (leading to resignation).

Moreover, previous research suggests that the cognitive appraisals specified by Lazarus account for the greatest emotion variance as compared to other cognitive appraisals (Winter, 2000; Smith & Lazarus, 1993). That is, even though cognitive appraisals other than those specified in the theory are statistically significant in predicting an emotion, the amount of variance they account for is minimal. Hence, it is likely that the theoretically specified appraisal in relation to other appraisals will account for the most variance in the corresponding emotion.

Emotions most relevant to a performance appraisal context were examined in the present study. The negative emotions associated with cognitive appraisals of harm were

anxiety, fear, guilt, and embarrassment. The positive emotions associated with cognitive appraisals of benefit were hope, challenge, interest, curiosity, and empathy.

H1a: Cognitive appraisals specified by theory will significantly predict their corresponding emotion.

The cognitive appraisal of **threat/danger** will significantly predict **anxiety/fear.**

The cognitive appraisal of **self blame** will significantly predict **guilt/embarrassment.**.

The cognitive appraisal of **concern for another** will significantly predict **empathy.**

The cognitive appraisal of **optimism** will significantly predict **hope/challenge**.

The cognitive appraisal of **relevance** will significantly predict **interest.**

The cognitive appraisal of **openness** will significantly predict **curiosity**.

H1b: Cognitive appraisals specified by theory will account for the largest proportion of variance in their corresponding emotion.

The cognitive appraisal of **threat/danger** will accounted for the largest proportion of variance in **anxiety/fear.**

The cognitive appraisal of **self blame** will account for the largest proportion of variance in **guilt/embarrassment.**.

The cognitive appraisal of concern for another will account for the largest proportion of variance in **empathy.**

The cognitive appraisal of **optimism** will account for the largest proportion of variance in **hope/challenge**.

The cognitive appraisal of **relevance** will account for the largest proportion of variance in **interest.**

The cognitive appraisal of **openness** will account for the largest proportion of variance in **curiosity**.

Emotion as an Antecedent of Upward Rating Distortion

According to emotion theorists, emotions trigger specific response tendencies that are believed to serve an adaptive function (Frijda, 1986; Frijda, Kuipers, & ter Schure, 1989; Lazarus, 1991a; Levenson, 1994; Oatley & Jenkins, 1996; Tooby & Cosmides, 1998). If the significance of what is happening in the person-environment encounter involves an interpretation of personal harm or benefit, an emotion is generated that triggers an action tendency (Lazarus, 1991a). For instance, the emotion of anxiety is preceded by a cognitive appraisal that a future encounter will be threatening, and this appraisal leads to the action tendency of avoidance. The emotion of anger is preceded by a cognitive appraisal of being demeaned or treated unjustly, and this interpretation leads to the action tendency of confrontation or attack on the agent believed to be blameworthy for the offense (Averill, 1980, 1982, 1983; Lazarus, 1991a).

Negative emotions lead individuals to behave in specific, self-protective ways in response to the situation (Fredrickson, 2001). Negative emotions carry immediate adaptive benefits in situations that threaten survival, and serve as a psychological process that narrows an individual's momentary thought-action repertoire by calling to mind an impulse to act in a specific way. In a life-threatening situation, a narrowed thought-action repertoire enables quick and decisive action that leads to immediate benefit. While individuals do not invariably act out the impulses associated with feeling particular emotions, their ideas about possible courses of action narrow in on a specific set of behavioral options (Fredrickson, 2001).

Previous research has documented that negative emotions lead to avoidance behaviors (Fazio, Eiser, & Shosh, 2004), which enable individuals to move away from

situations, objects or people that they consider threatening in some manner (Kok, Catalino, & Fredrickson, 2008). Hence, it was hypothesized in the present study that upward rating distortion would increase as negative emotions increase.

H2: Negative emotion will be positively associated with upward rating distortion.

H2a. **Anxiety** will be positively associated with upward distortion.

H2b. **Fear** will be positively associated with upward distortion.

H2c. **Guilt** will be positively associated with upward distortion.

H2d. **Embarrassment** will be positively associated with upward distortion.

Theories of emotion typically posit the existence of six or seven negative emotions but only one or two positive emotions (Ellsworth & Smith, 1988a; Smith & Lazarus, 1993). Not only are positive emotions comparatively few, but they are also relatively undifferentiated. Emotions such as joy, amusement, and happiness are often not easily differentiated from one another (Fredrickson, 2001). For instance, individuals often use the term "happy" as a general, all-purpose adjective to describe a variety of positive emotion states (Ellsworth & Smith, 1988a; Smith & Lazarus, 1993; Weiner, 1985). Anger, fear, and sadness, on the other hand, are distinctly different experiences.

As previously mentioned, emotion theorists maintain that negative emotions narrow individual's ideas about possible actions through specific action tendencies (i.e., anger creates the urge to attack, fear leads to the impulse to escape). In contrast, positive emotions do not necessarily lead to such specific actions. Instead, according to the broaden-and-build theory of positive emotion (Fredrickson, 2001), positive emotions

broaden individual's ideas about possible actions, opening their awareness (Fredrickson, 2001).

Over the short term, positive emotions widen the repertoire of individual's actions, and facilitate approach behavior (Cacioppo, Gardner, & Berntson, 1999; Davidson, 1993; Fredrickson & Branigan, 2005; Watson, Wiese, Vaidya, & Tellegren, 1999). Approach behavior enables individuals to gather information about their environment, and this store of information becomes a resource on which to draw to make better decisions (Kok et al., 2008). While the avoidance orientation induced by negative emotions is useful for preventing harm, the approach orientation induced by positive emotions enables individuals to stay open to information. In previous research, positive emotions have facilitated attention to negative self-relevant information (Reed & Aspinwall, 1998; Trope & Neter, 1994; Trope & Pomerantz, 1998; Aspinwall, 1998), and have been associated with the ability to step back from the situation and be more objective (Fredrickson & Joiner, 2002). It follows that positive emotions might be associated with more objective (less distorted) performance ratings.

Specifically, when a supervisor experiences the positive emotion of hope, they will be less likely to upwardly distort ratings because they perceive the situation as one in which the wished for improvement is possible. When a supervisor experiences the positive emotion of curiosity, they will be genuinely interested in an accurate understanding of the direct report's performance, and will thereby be less likely to distort the rating. Similarly, when a supervisor experiences the positive emotion of empathy (concern for the direct report), they will be less likely to upwardly distort the ratings in an effort to help the direct report improve their performance with an accurate appraisal. The

unexpected results from the Waung & Highhouse study (1997) revealed that supervisors with high trait empathy did not upwardly distort feedback as much as those with low trait empathy. Thus, the following hypotheses are presented:

H3: Positive emotion will be negatively associated with upward rating distortion.

H3a. **Empathy** will be negatively associated with upward distortion.

H3b**. Curiosity** will be negatively associated with upward distortion.

H3c. **Interest** will be negatively associated with upward distortion.

H3d. **Hope/confidence** will be negatively associated with upward distortion.

H3e. **Challenge/expectant** will be negatively associated with upward distortion.

Cognitive Appraisals as Antecedents of Upward Rating Distortion

It is also likely that the supervisor's interpretation of feeding back the performance rating will be associated with upward distortion. If a supervisor interprets a performance appraisal discussion as a potential threat to either himself/herself or the direct report, he or she will upwardly distort the rating in order to avoid the perceived harm. Whether accurate or not, this interpretation will influence the supervisor's behavior during the interaction. Similarly, if the supervisor makes an appraisal of self-blame (feeling guilty that they haven't fulfilled their supervisory responsibilities by providing consistent coaching, for example), he or she will distort the rating in an upward direction.

H4: Cognitive appraisals of harm will be positively associated with upward rating distortion.

H4a. The cognitive appraisal of **threat/danger** will be positively associated with upward distortion.

H4b. The cognitive appraisal of **self-blame** will be positively associated with upward distortion.

On the other hand, if the supervisor appraises the situation as a benefit to either himself/herself or the direct report, there will be less distortion. For example, if the supervisor perceives that the desired improvement is possible, he or she will be less likely to upwardly distort the performance ratings. If the supervisor appraises the situation as concern about the direct report, he or she will be less likely to upwardly distort the rating in an effort to help the direct report improve performance. Hence, the following hypotheses predict the relationship between the supervisor's appraisal of the situation and rating distortion.

H5: Cognitive appraisals of benefit will be negatively associated with upward rating distortion.

H5a. The cognitive appraisal of r**elevance** will be negatively associated with upward distortion.

H5b. The cognitive appraisal of **openness** will be negatively associated with upward distortion.

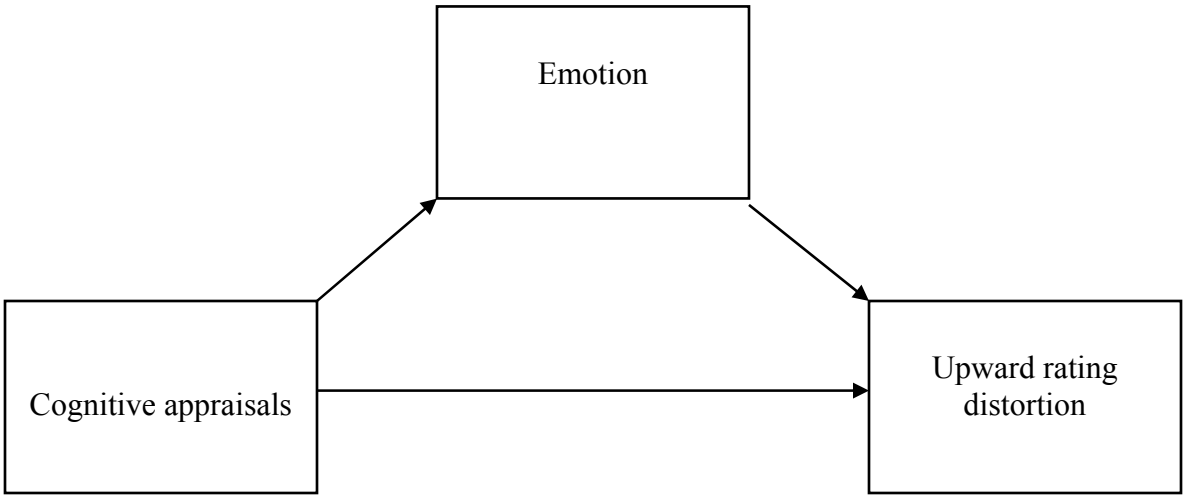
H5c. The cognitive appraisal of **optimism** will be negatively associated with upward distortion.

H5d. The cognitive appraisal of **concern for another** will be negatively associated with upward distortion.

Mediating Role of Emotion

Emotion acts as a mediating variable, and provides the link between cognitive appraisals and action tendencies (Lazarus, 1991a). Although negative emotion as a mediating variable has not been empirically tested, previous research has documented the link between cognitive appraisals of harm and negative emotion (Smith & Lazarus, 1988b). Based on this theoretical model (presented in Figure 2), cognitive appraisals of harm will act through negative emotion to accentuate upward rating distortion. Similarly, it is also expected that beliefs of benefit will act through positive emotion to attenuate upward rating distortion.

Figure 2. Model with emotion as mediator of the relationship between cognitive appraisals and upward distortion.



H6. Negative emotion will partially mediate the relationship between cognitive appraisals of harm and upward rating distortion.

H6a. **Anxiety/fear** will partially mediate the relationship between the cognitive appraisal of **threat/danger** and upward distortion.

H6b. **Guilt/embarassment** will partially mediate the relationship between the cognitive appraisal of **self-blame** and upward distortion.

H7. Positive emotion will partially mediate the relationship between cognitive appraisals of benefit and upward rating distortion.

H7a. **Curiosity** will partially mediate the relationship between **openness** and upward distortion.

H7b. **Interest** will partially mediate the relationship between **relevance** and upward distortion.

H7c. **Hope/challenge** will partially mediate the relationship between **optimism** and upward distortion.

H7d. **Empathy** will partially mediate the relationship between **concern for another** and upward distortion.

Supervisor's Beliefs as Antecedents of Upward Rating Distortion

While cognitive appraisals are the broader, universal themes individuals have about the person-environment relationship, supervisors also hold theories, or specific beliefs or assumptions, about the likely consequences of delivering performance feedback (Larson, 1984). A belief system or schema consists of generalized knowledge about a concept or experience (Lazarus, 1991a). A belief is a personal theory guiding what individuals notice and remember in a situation and how they interpret their experiences.

As previously mentioned, supervisors may develop beliefs about the likely outcome of performance appraisal through experience with actually feeding back performance appraisals or through a process of socialization in which they hear others' accounts of feeding back performance appraisals (Larson, 1984). These beliefs exert a strong influence on performance feedback behavior (Argyris & Schön, 1974, 1978; Kelly, 1955, 1970; Wegner & Vallacher, 1977; Weick, 1979).

When knowledge has been consistently appraised in the past in a particular way by a person, connections between knowledge and appraisal are formed that are fundamentally inseparable and instantaneous (Leventhal, 1984; Lazarus 1991a). The appraisal occurs automatically and without complex cognitive activity (Lazarus, 1991a). Lazarus (1991a) advocates that actors do not have to go through the entire appraisal process every time they face a new adaptational encounter. When they have previously learned the contingencies between certain conditions and their consequences for well being, individuals will develop instantaneous beliefs in response to nominal cues (Bargh, 1990; Lazarus, 1991a). Hence, a personal theory or belief may be triggered by familiar encounters such as feeding back performance appraisals. Moreover, a personal theory may vary in specificity ranging from beliefs about how specific feedback recipients will react to beliefs about how feedback recipients in general may respond (Larson, 1984).

A review of the performance appraisal literature suggests that there are some common beliefs about the likely outcome of feeding back performance appraisals (Fisher, 1979; Benedict & Levine, 1988; Waung & Highhouse, 1997; Morran, Stockton, & Bond, 1991). I have categorized these around beliefs that the likely outcome will be of harm (to either the self or the other person) and beliefs that the likely outcome will be of benefit

(to self or other). Examples of beliefs of harmful outcomes commonly found in the literature include 1) my direct report will not like me after I deliver the performance appraisal, 2) my direct report will become confrontational or defensive, and 3) my direct report's self-esteem will be damaged. Beliefs that the likely consequences of feeding back performance appraisals will be of some harm will be positively associated with upward rating distortion. In the present research, supervisor beliefs that feeding back performance appraisal ratings to direct reports will result in some harmful outcome will be examined in relation to upward rating distortion.

On the other hand, beliefs that the likely outcome of feeding back performance appraisals will be beneficial are less prevalent in the literature. In studies investigating the MUM effect, Tesser and Rosen (1975) found that peers were more likely to transmit bad news when they were told that the recipients wanted to know the bad news. In a study on organizational feedback environment, Steelman, Levy, and Snell (2004) found that feedback recipients reported satisfaction with feedback when they believed it accurately reflected their performance – even when it was unfavorable. While upward distortion was not assessed, the findings are contrary to most supervisors' beliefs about the likely outcome of giving unfavorable feedback.

Larson (1984) has suggested that supervisors are often uncomfortable delivering unfavorable feedback, because they believe that subordinates will react defensively. The data in the aforementioned study, however, indicate that - contrary to these often accepted beliefs - employees may be more satisfied with and motivated to use unfavorable feedback if they believe it accurately reflects performance. If supervisors hold beliefs that feeding back performance appraisals will result in some beneficial

outcome within the dyadic relationship, they will be less likely to upwardly distort performance ratings. Beliefs of beneficial outcomes in the present study will include 1) my direct report will want the performance appraisal to improve performance, 2) my direct report will accept accountability in resolving the issue, and 3) my direct report will be more satisfied after receiving the performance appraisal. Appendix C presents beliefs of harmful and beneficial outcomes that will be examined in Study 1.

In sum, a supervisor may have a belief about the likely consequence of feeding back a performance appraisal that "my direct report will not like me if I deliver an unfavorable appraisal." Subsequently, this belief will lead to upward distortion. The stronger the supervisor belief of a harmful outcome (for example, the belief that the direct report will be confrontational or defensive), the greater the upward distortion, whereas the stronger the supervisor belief of a beneficial outcome (direct report will want the feedback to improve his or her performance), the less the upward distortion.

H8: Beliefs of harmful outcomes will be positively associated with upward rating distortion.

H9: Beliefs of beneficial outcomes will be negatively associated with upward rating distortion.

Psychological Climate as an Antecedent of Upward Rating Distortion

Upward rating distortion will also be influenced by supervisors' perceptions of the rating environment. Performance appraisal researchers have argued that performance appraisal takes place in a social context, and context plays an important role in the effectiveness of the appraisal process (Murphy & Cleveland, 1991; Ferris, Judge, Rowland, & Fitzgibbons, 1994; Judge & Ferris, 1993; Levy & Williams, 2004). In

particular, a recent focus has been on the influence that perceptions of feedback climate (London, 2003; London & Smither, 2001; Steelman, Levy, & Snell, 2004) and rater perceptions of organizational politics in performance appraisal (Bernardin & Beatty, 1984; Longenecker, Sims, & Gioia, 1987; Tziner, Latham, Price & Haccoun, 1996) have on appraisal outcomes. These climate factors were examined in the present study.

While climate has been studied at the organizational level of analysis as a shared perception (Hellriegel & Slocum, 1974; L.R. James, 1982; L.R. James & Jones, 1974), it can also be conceptualized at the individual level as psychological climate (L.R. James & Jones, 1974; Hellriegel & Slocum, 1974). At this level, employees' perceptions represent the cognitive interpretations of the context, and arise from individual's interactions with the context and with each other. Because organizational climate arises out of the cognitive appraisals, social constructions, and sense-making of individuals, measures that rely on the individual as the basic unit of theory (psychological climate) are appropriate (LR.James & Jones, 1974; Hellriegel & Slocum, 1974). In the present study, the psychological climate variables, perceptions of feedback environment and political considerations in appraisal, were examined as potential antecedents of upward distortion.

Feedback Environment. A strong feedback environment (London & Smither, 2002) has been defined as one in which supervisors and employees feel comfortable providing and receiving feedback. Levy and Williams (2004) maintain that feedback environment is vital to performance outcomes. Steelman, Levy, and Snell (2004) developed and validated a measure of feedback environment (FES) that diagnoses the extent to which an organization supports feedback processes. The facet of receptiveness to unfavorable feedback was of particular interest in the present study. This facet is

conceptualized as the perceived frequency of unfavorable feedback in the organization when the feedback recipient believes that his or her performance warrants such feedback and that the feedback is accurate.

As previously mentioned, an unexpected finding from the validation study indicated that accurate, unfavorable feedback was positively associated with satisfaction with feedback, motivation to ask for additional feedback, and desire to use feedback to improve performance (Steelman et al., 2004). When an organization has a strong feedback environment, this environment is likely to be associated with performance appraisal ratings that are accurate (less distorted). Hence, it was hypothesized that upward rating distortion will decrease as perceptions of the feedback environment of the organization increase.

H10. Perceptions of feedback environment will be negatively associated with upward rating distortion.

Perceptions of Political Considerations in Performance Appraisal. Performance appraisal researchers have also argued that supervisors deliberately distort performance appraisal ratings for political purposes in which they are more concerned about their self-interests than about providing accurate performance ratings (Longenecker, Sims, & Gioia, 1987; Bernardin & Beatty, 1984; Tziner et al., 1996). Longenecker, Sims, and Gioia (1987) conducted interviews with managers who reported deliberately manipulating performance appraisal ratings for political purposes. Managers reported inflating ratings in an upward direction to avoid negative outcomes for ratees such as demotions or salary freezes. They also reported that they distorted ratings to be more

negative than the subordinate's actual performance when they wanted to send a message to a poor performing subordinate.

Tziner et al. (1996) developed an instrument, the Questionnaire of Political Considerations in Performance Appraisal (QPCPA), to measure perceptions of the extent to which political considerations are manifested in performance appraisal in an organization. Positive distortion, as opposed to negative distortion, was of interest in the present study, and so only those items that assess positive distortion were measured to assess organizational climate. Examples of items include "supervisors avoid giving performance ratings which may have negative consequences for the employee such as salary freezes" and "supervisors give performance ratings that will make them look good to their superiors." It was expected that perceived political considerations in performance appraisal within the organization would be positively associated with upward rating distortion.

H11: Perceived political considerations in performance appraisal will be positively associated with upward rating distortion.

Summary

In sum, upward rating distortion will be negatively associated with positive emotions, cognitive appraisals of benefit, and beliefs of benefit, whereas upward distortion will be positively associated with negative emotions, cognitive appraisals of harm, and beliefs of harm. Moreover, psychological climate will be associated with upward distortion. Individual's perceptions of the organizational climate for political considerations in appraisal will be positively associated with upward distortion, whereas perceptions of feedback environment will be negatively associated with distortion. These

relationships were explored in a field study from actual work settings documenting favorable and unfavorable performance appraisals.

Method

Design and Participants

A survey design was used for Study 1, addressing the call from previous research to examine the upward distortion of ratings that must be fed back in actual organizational settings for both favorable and unfavorable performance (Fisher, 1979; Benedict & Levine, 1988). Participants completed a two-part survey in which they reported two performance appraisals they had recently delivered to direct reports, and then completed questionnaires about the variables under study.

The sample consisted of 67 business students enrolled in MBA or management courses at a midwestern university. Forty-five percent of the sample were MBA students, 46% were seniors, and 9% were juniors enrolled in business courses. All participants had supervisory experience in delivering performance appraisals to direct reports as a prerequisite to participate in the study.

Participants held an average of 4.6 years of supervisory experience and 10.5 years of work experience. These supervisors worked in a variety of industries, ranging from healthcare, insurance, finance, information technology, human resources, banking, service, and retail. On average, participants supervised 14 direct reports, and had delivered performance appraisals an average of 26.6 times. Fifty-five percent of the sample was female. The average age was 29.1 years, with a range of 19 to 57 years of age. Seventy-three percent of the sample was Caucasian, 13% African American, 12% Asian, 1% Hispanic, and 1% Native American.

Procedure

Participants completed two take-home surveys for both a favorable and unfavorable performance appraisal. The surveys were completed for course credit. All identifying information was removed from surveys before data were analyzed. In one survey, participants reported a recent unfavorable performance appraisal they delivered to a direct report. In the other survey, they reported a favorable performance appraisal that they delivered. The order was counter-balanced to control for order effects such that half of the participants were randomly assigned to complete the unfavorable performance appraisal first and the other half to complete the favorable performance appraisal first. The surveys were also completed one week apart, and there was no missing data at time 2.

Each take-home survey consisted of three sections. In the first section, participants reported a recent performance appraisal that they delivered to a direct report. Specifically, participants were asked to describe a recent performance appraisal by completing a left-hand column case, a method that has been used in the action science literature (Argyris & Schön, 1974). A sample of a left-hand column case is presented in Appendix B. This method enables participants to recall the specific experience as vividly as possible and to re-experience the thoughts, emotions, and actions related to the situation. Participants wrote about a recent performance appraisal, reporting the dialogue as best they could recall it in the right-hand column as if writing the script in a play. In the left-hand column, participants recorded the thoughts and feelings that they had during the performance appraisal discussion.

These procedures were similar to those used in prior studies (Frijda, Kuipers, & ter Schure, 1989; Roseman, Spindel, & Jose, 1990; Tesser, 1990; Ellsworth & Smith,

1988a; Ellsworth & Smith, 1988b; Smith, Haynes, Lazarus, & Pope, 1993; Smith & Ellsworth, 1983; Smith & Lazarus, 1993) in which participants were directed to recall as vividly as possible an experience that was emotionally engaging and important to them, and then to describe it in writing. Ellsworth and Smith (1988a) maintain that directions must be engaging to encourage participants to recollect their past experience in detail and to re-experience feelings associated with the past event in order to maximize the accuracy of the cognitive appraisal and emotion ratings (Ellsworth & Smith, 1988a; Ellsworth & Smith, 1988b). Instructions in past studies have directed participants to "Please try to recall a past unpleasant emotional experience when you felt responsible for what was happening in the situation. Try and remember as vividly as you can what this past situation was like. Try to think back and re-experience the emotions that you were feeling during this experience. Think of what happened in this situation, why you felt responsible, and what it felt like to be in this particular situation" (Ellsworth & Smith, 1988b; p. 277).

This procedure has also been used in the conflict literature to explore cognitive appraisals and emotions in work setting conflict (Bell & Song, 2005). Participants in a recent study (Bell & Song, 2005) were asked to describe a situation involving a conflict at work that was important to them and in which they were emotionally involved. The method was used to cue participants to recall the specific event prior to reviewing and responding to the survey items to bring to the fore the thoughts, emotions, and actions related to the conflict (Bell & Song, 2005). Previous research indicates that anchoring participants in a specific event increases recall (Korsgaard, Brodt, & Whitener, 2002; Lind, Tyler, & Huo, 1997; Lissak & Sheppard, 1983). After describing the event,

participants in the study then completed questionnaires on cognitive appraisals, emotions, and conflict resolution behaviors.

Other guidelines to enhance recall accuracy from management research recommend the assurance of anonymity and confidentiality of responses to remove the disincentive to respond accurately (Huber & Power, 1985). They have also recommended telling managers up front how long it will take to provide the required information. These researchers maintain that managers are more likely to allot sufficient time for the survey if they know the amount of time it will take (Huber & Power, 1985). They also recommend using questions that are structured and pre-tested, and to minimize the amount of time elapsed between the event and collection of data. All of these procedures were used in the present study.

In the second section of the take-home survey, participants completed questionnaires for beliefs about outcomes, cognitive appraisals, and emotions as they related to the specific performance appraisal. This section also included questionnaires on perceptions of the organizational feedback environment and perceived political considerations for performance appraisal. Participants reported the rating they made for each specific performance appraisal and the extent to which they distorted the rating more positively than the actual performance warranted. In the third section, participants reported demographic information such as gender, ethnicity, age, years of supervisory experience, their role, and the type of organization for which they worked.

Measures

Beliefs about performance appraisal outcomes. Items were written based on a literature review of beliefs discussed in previous studies. Beliefs of a harmful outcome

included items such as “my direct report won’t like me if I provide the feedback” and “my direct report will become defensive if I provide the feedback.” Beliefs of a beneficial outcome included items such as “my direct report will want the feedback to improve performance,” and “my direct report will be motivated by accurate feedback.” Participants were asked to rate on a Likert-type scale from 1 (not at all) to 7 (strongly agree) the extent to which each statement reflected their beliefs about the likely outcome of delivering the performance appraisal. The scale for beliefs about outcomes is presented in Appendix C.

Cognitive appraisalss. Cognitive appraisals were assessed using the instrument developed by Lazarus and colleagues (Lazarus 1991a; Smith & Lazrarus 1993; Smith, Haynes, Lazarus, & Pope, 1993). Participants were asked to rate the extent to which each statement on the questionnaire characterized their thoughts in the situation on a Likert-type rating scale ranging from 1 (not at all) to 7 (strongly agree.) Multiple-item scales were used to assess the most commonly researched cognitive appraisals, including self-blame, threat/danger, optimism, relevance, and concern for other. Additional items were written for the theme of openness to reflect the operational definition of this appraisal as being open and genuinely curious about what is happening. The instrument used to assess cognitive appraisals is presented in Appendix D.

Emotion. Emotions were assessed with ratings of emotional adjectives based on instruments developed by Lazarus and colleagues (Lazarus, 1991a; Ellsworth and Smith (1988a; 1988b). Multiple-item scales were used to assess the emotions of anxiety, embarrassment, and confidence, as used in previous studies (Ellsworth & Smith, 1988a; 1988b). One item scales were used for the emotions of interest, curiosity, empathy,

challenge, hope, and expectant (Izard, 1992; Ellsworth & Smith, 1988a; 1988b; Smith & Ellsworth, 1983). Participants were asked to rate on a scale from 1 (not at all) to 7 (extremely) the extent to which each of the emotional adjectives described how he or she was feeling about delivering the performance appraisal. The instrument is presented in Appendix E.

Upward rating distortion. Participants were asked to rate the following item on a 7-point Likert-type scale ranging from 1 (not at all) to 7 (extremely inflated): "Rate the extent to which you inflated the rating more positively than your direct report's actual performance warranted." This procedure is similar to a self-report measure of rating inflation used by Fried, Levi, Ben-David, and Tiegs (1999).

Perceived feedback environment. Perceptions of the organization's feedback environment were measured using the 4-item sub-scale of the Feedback Environment Scale (FES), developed and validated by Steelman, Levy, and Snell (2004). Scale items include "supervisors in the organization tell employees when their work performance does not meet organizational standards" and "on those occasions when employees' job performance falls below what is expected, supervisors in the organization let employees know." Using a 7-point Likert-type scale ranging from 1 (not at all) to 7 (strongly agree), participants rated the extent to which they perceived each statement was reflective of their organizational feedback environment. The 4-item subscale is presented in Appendix F.

Perceived political considerations in performance appraisal. A 10-item instrument, modified from the Questionnaire of Political Considerations in Performance Appraisal (QPCPA) developed and validated by Tziner et al. (1996), was used to measure perceptions of the extent to which performance appraisals were affected by

organizational politics. The original 25-item scale assesses both rating inflation and deflation. Only those items relevant to rating inflation were of interest in the present study. A 7-point Likert type scale was used, ranging from 1 (not at all) to 7 (strongly agree). Examples of items include "supervisors give performance ratings that will make them look good to superiors" and "supervisors avoid giving performance ratings which may have negative consequences for the employee such as demotion, lay-off, no bonus, or salary freeze." The 10-item instrument is presented in Appendix G.

Demographic questionnaire. Participants also completed a brief demographic questionnaire in which they reported gender, ethnicity, age, years of supervisory experience, role in the organization, and the industry of the organization for which they worked. The demographic questionnaire is presented in Appendix H.

Data Analytic Procedure

Data from favorable and unfavorable cases were analyzed separately rather than combining them into one dataset. T-tests with feedback valence as the indicator revealed significant differences for favorable and unfavorable cases in upward distortion [t (2, 132) = 4.21, $p < .001$], harm beliefs [t (2, 132) = 5.46, $p < .001$], benefit beliefs [t (2, 132) = -3.30, $p < .001$], anxiety [t (2, 132) = 2.26, $p < .05$], guilt [t (2, 132) = 2.09, $p < .05$], and empathy [t (2, 132) = 2.31, $p < .05$].

Analyses to test for order effects were performed to determine if completing the measures first for favorable cases followed by unfavorable cases was significantly different from completing the measures first for unfavorable cases followed by favorable cases. A one-way ANOVA was conducted on the independent variables, mediating variables, and dependent variables for favorable and unfavorable cases using order as a

grouping variable. Order of completing the ratings did not appear to influence the results, as the ANOVA was not significant for any of the study variables.

Results

Preliminary Analyses

Descriptive statistics. Tables 1 and 2 present descriptive statistics for unfavorable and favorable cases, including means, standard deviations, scale reliabilities, and intercorrelations for the study variables. Scale reliabilities ranged from .40 to .93. The coefficient α reliability of the 3-item challenge subscale (which included the descriptors challenge, confident, and proud) was .52 for unfavorable cases and .63 for favorable cases. For unfavorable cases, anxiety was positively associated with challenge (r = .21, p < .01), and negatively associated with confident (r = -.31, p < .01) and proud (r = -.39, p < .01). For favorable cases, anxiety was positively associated with challenge (r = .23, p < .05) and negatively associated with confident (r = -.29, p < .01) and proud (r = -.36, p < .01). In the context of feeding back a performance appraisal, it appears that respondents were making distinctions between the emotion of challenge (as possibly a difficult challenge or potential threat) and confidence (as a feeling of confidence or pride).

When the item challenge was deleted, the new subscale with confident and proud resulted in a reliability of .70 for unfavorable cases and .75 for favorable cases. This new scale represented the emotion of confidence, rather than challenge. Based on these results, the decision was made to use the 1-item descriptor of challenge to examine the emotion of challenge and the 2-item scale (confident and proud) to examine the emotion

of confidence. The reliability for the 2-item hope subscale was .44 for unfavorable cases and .51 for favorable, and so each item (hope and expectant) was examined separately.

The scale for the cognitive appraisal of relevance did not demonstrate an acceptable reliability (favorable cases: $\alpha = .57$; unfavorable cases: $\alpha = .40$). Hence, each item in the scale was measured as a single item, and is represented as relevance (importance) and relevance (personal concern). The scale for the cognitive appraisal of self-blame resulted in an α reliability of .48 for favorable cases and .86 for unfavorable cases. When item #9 was deleted, the reliability was .59 for favorable cases and .82 for unfavorable cases. Thus, the two-item scale was used to assess the cognitive appraisal of self-blame. It appears that respondents may have been unable to interpret some of the items in the self-blame scale for favorable cases (i.e., "I think things are bad with my direct report's performance because of me), resulting in the lower reliability for favorable cases.

Confirmatory factor analysis. Because the beliefs of performance appraisal outcomes scale was newly developed, a confirmatory factor analysis was performed with LISREL 8.72 (Joöeskog & Sörbom, 2005) with a covariance matrix as input. The measurement model was tested with the sample from study 1, and then was cross validated with the sample from study 2. To determine how well the indicators were measuring the constructs, I estimated a measurement model with 2 factors that were hypothesized to covary with one another. The model is presented in Figure 3.

Maximum likelihood estimation was employed to estimate all the models. Table 3 presents the χ^2, df, and fit indices for the hypothesized measurement model as well as for subsequent models. I used the 2-fit index presentation strategy suggested by Hu and

Bentler (1999) of reporting a residual-based fit index and a comparative fit index. I also used the degree of parsimony fit indices, the AIC and CAIC, as recommended by Tanaha (1993), in which smaller values indicate a good fitting, parsimonious model in comparison to other competing models. The AIC is useful for cross validation, as in the present study, because it is not dependent on the sample data (Tanaha, 1993).

Using the data from Study 1, a chi-square difference test indicated significant improvement in fit between the independence and hypothesized model, χ^2 (15, N = 134) = 1135.25, $p < .001$. Although the fit was not unreasonable, the RMSEA of .09 fell below the .08 cutoff suggested by Browne and Cudeck (1993) and the .06 cutoff suggested by Hu and Bentler (1999). The SRMR of .08 met the .08 cutoff recommended by Hu and Bentler (1999). The CFI of .96 met the cutoff of .95 (Hu & Bentler, 1999), and the NNFI of .95 met the cutoff of .95 (Tabachnick & Fidell, 2001).

Post hoc model modifications were performed to develop a better fitting, parsimonious model. Indicators showed significant loadings on the latent constructs, ranging from .39 to .92, with the exception of variable 10 with a loading of .08. The squared multiple correlation for variable 10 indicated that only 1% of the variance in this indicator was accounted for by the benefit factor. The factor underlying variable 10, "my direct report may have information that I am missing about his or her situation" did not appear to be a benefit or harm belief. When variable 10 was deleted, the re-estimated model resulted in an increase in fit, χ^2 (64) = 154.63, $p < .001$. The AIC was 228.15 with variable 10 and improved to 209.18 without it. The CAIC was 341.19 with variable 10, and improved to 314.42 without it. Factor loadings are presented in Table 4. The re-estimated 2-factor model without variable 10 demonstrated a reasonable fit.

I performed a CFA with a new sample in Study 2 to cross-validate the 2-factor model from Study 1. The 2-factor model had a reasonable fit: χ^2 (76, N = 120) = 119.02, p < .001, RMSEA = .07, CFI = .96, NNFI = .95. Once again, all standardized regression coefficients for the LISREL estimates of lambda were significant with the exception of variable 10 (-.20 *B*, .85 *SE*). Factor loadings for all indicators ranged from .33 to .81, as presented in Table 4, with the exception of variable 10 with a factor loading of -.02. The squared multiple correlation for variable 10 was .00. When item 10 was deleted, an improvement in the fit was observed. The AIC with variable 10 was 172.3, and improved to 165.78 without it. The CAIC with variable 10 was 282.14, and improved to 268.04 without it.

Taken together, results of the CFA for the Study 1 and Study 2 samples indicated a reasonable model fit for the 2-factor structure, although further refinement of the scale will be needed for future research. Coefficient α reliabilities for the scales were as follows: benefit beliefs (sample 1: .90 unfavorable cases, .83 favorable cases; sample 2: .78) and harm beliefs (sample 1: .79 unfavorable cases, .90 favorable cases; sample 2: .86).

Qualitative data. Respondents were asked to report the outcomes they had experienced in the past when feeding back favorable and unfavorable performance appraisals. This qualitative data was collected to provide additional insight into supervisor beliefs about possible outcomes. Some of the narrative comments from the questionnaires included the following: "my direct report was more committed to performance improvement," "my direct report will leave the company if the rating is not high enough," "my direct report showed greater respect for me as a supervisor," "my

direct report might seek legal counsel," and "my direct report knew exactly what he needed to do to improve performance."

Regression diagnostics. Regression diagnostics were performed to assess the three regression assumptions for normality, linearity, and homoscedasticity through an analysis of residual plots. The distribution for the cognitive appraisals of danger/threat, helplessness, and self-blame were positively skewed. The distribution for the cognitive appraisals of success, optimism, and openness were negatively skewed. The distributions for emotions were normal, with the exception of the distributions for anxiety and embarrassment which were positively skewed.

An examination of the scatterplots revealed that the assumptions for linearity and homoscedasticity were met for all dependent variables. Mahalanobis distance of each case to the centroid of all cases was computed for outliers, using the criterion of standardized residuals in excess of three standard deviations (Tabachnick & Fidell, 2001). Three cases of the variable "afraid" and two cases of the variable "guilt" were rated "6," which was outside of three standard deviations. Upon inspection of these cases, no reason was found to remove them from the dataset.

None of the tolerances, or degree of overlap among predictors, reached zero, and they ranged from .38 to .96. The highest correlation among predictor variables was with the core themes of optimism and helplessness ($r = -.72$, $p < .01$), which was below the cutoff of .90 for evidence of multicollinearity. Based on these diagnostics, the data did not demonstrate any characteristics that would weaken the ability of the regression analysis to find an effect.

Tests of Hypotheses

Hierarchical multiple regression. Hierarchical multiple regression analyses were used to test hypothesis 1 that each cognitive appraisal is expected to significantly predict its corresponding emotion, and that, in addition, the cognitive appraisal specified by theory is expected to account for the largest proportion of variance in the corresponding emotion. That is, even though cognitive appraisals other than those specified in the theory are statistically significant in predicting an emotion, the amount of variance they account for is minimal.

The choice of sequence of predictor variables was made a priori, with the theoretically relevant cognitive appraisal regressed on the corresponding emotion in the first equation, and the remaining set of cognitive appraisals entered in the second equation. This procedure is recommended by Cohen and Cohen (1983) when some variables are logically prior to others as specified by theory, but there may not be a basis of ordering variables within a group or set. This procedure was used consistent with prior cognitive emotion research in which the relationships between cognitive appraisals (core themes) and emotions were examined (Smith & Lazarus, 1993; Ellsworth & Smith, 1988a; Winter, 2000). Alternative approaches such as SEM might be explored in future research. Analyses were conducted separately by favorable and unfavorable cases.

Each emotion was regressed on the theoretically relevant cognitive appraisal in a first step. An examination of the zero-order correlations and percentage of emotion variance accounted for in Tables 5-16 reveals that each cognitive appraisal specified by theory significantly predicted the corresponding emotion with the exception of the following: self blame and guilt for favorable cases, self blame and embarrassment for

unfavorable cases, optimism and challenge, openness and curiosity, relevance (importance) and interest, and relevance (personal concern) and interest for unfavorable cases.

Next, in a second step, each emotion was regressed on the remaining set of cognitive appraisals. Hypotheses 1b was partially supported for the negative emotions, as presented in Tables 5 - 8. Danger/threat accounted for the greatest proportion of variance in fear, as specified by theory. Danger/threat also accounted for the greatest proportion of variance in anxiety for unfavorable cases. However, danger/threat did not account for the greatest proportion of variance in anxiety for favorable cases. The set of remaining cognitive appraisals made a significant contribution to the equation in the second step, $R = .72$, $F\,(1, 65) = 5.24$, $p < .01$, and $R^2 = .23$, $F\,(10, 55) = 2.61$, $p < .01$. An inspection of the squared semi partial correlations revealed that success (rather than danger/threat) contributed the greatest proportion of unique variance in anxiety for favorable cases. Success and danger/threat were substantially correlated ($r = -.50$, $p < .01$), and the semi-partial correlations of highly correlated independent variables analyzed simultaneously are reduced (Cohen & Cohen, 1983). That is, because danger/threat and success laid claim to largely the same portion of anxiety variance, danger/threat did not make much by way of unique contribution.

Self blame accounted for the greatest proportion of variance in guilt for unfavorable cases. However, success (rather than self blame) contributed the greatest proportion of unique variance in guilt for favorable cases. Self blame accounted for the greatest proportion of variance in embarrassment for favorable cases; however, other

blame (rather than self blame) contributed the greatest proportion of unique variance in embarrassment for unfavorable cases.

Tables 9 - 16 present the results for the positive emotions. Hypothesis 1b was supported for concern for another; concern for another accounted for the greatest proportion of variance in empathy. Hypothesis 1b for optimism was partially supported. Optimism accounted for the greatest proportion of variance in expectant. Optimism also accounted for the greatest proportion of variance in hope for unfavorable cases. However, helpless (rather than optimism) accounted for the greatest proportion of unique variance in hope for favorable cases. Because optimism and helpless were substantially correlated ($r = -.72$, $p < .01$), each laid claim to largely the same portion of hope variance.

Success (rather than optimism) accounted for the greatest proportion of variance in confident. Removal of threat (rather than optimism) accounted for the greatest proportion of unique variance in challenge for unfavorable cases. Relevance/personal concern (rather than optimism) accounted for the greatest proportion of unique variance in challenge for favorable cases.

Finally, hypothesis 1b for openness and relevance was not supported. Openness did not account for the greatest proportion of variance in curiosity. Neither relevance variable (importance nor personal concern) accounted for the greatest percentage of variance in interest.

Hence, the pattern of findings presented in Tables 5 - 16 provides partial support for hypothesis 1. In general, each cognitive appraisal specified by theory significantly predicted the corresponding emotion. However, the pattern of results provided less support that each theoretically relevant appraisal accounts for the greatest proportion of

emotion variance as compared to other cognitive appraisal predictors. Support was found for the following relationships for both unfavorable and favorable cases: danger/threat accounted for the greatest proportion of variance in fear, concern for another accounted for the greatest variance in empathy, and optimism accounted for the greatest variance in expectant. For all other cognitive appraisal/emotion relationships, however, the results were mixed. It appears that other cognitive appraisals, in addition to those specified by theory, may make a significant contribution to the prediction of the associated emotion.

Summary of results for hypotheses 2 – 11. A summary table of results for hypotheses 2 through 11 is presented in Table 17. The following sections describe the results for these hypotheses.

Table 17. Summary of Results for Hypotheses 2 - 11

Hypotheses	**Summary of results**
Supported: H2, H4, H8, H9	• Upward distortion increased as negative emotion (H2), cognitive appraisals of harm (H4), and supervisor beliefs of harmful outcomes (H8) increased • Upward distortion decreased as supervisor beliefs of beneficial outcomes increased (H9)
Partially supported: H3	• Upward distortion increased as positive emotion (interest, curiosity, hope) increased for favorable cases (H3) • However, challenge, expectant, and empathy were positively associated with upward distortion, contrary to H3
Not supported: H5, H6, H7, H10, H11	• Cognitive appraisals of benefit were not significantly associated with upward distortion (H5) • Mediation hypotheses were not supported (H6 and H7) • Psychological climate variables (political considerations in performance appraisal and feedback environment) were not significantly associated with upward distortion (H10 and H11)

Correlations of emotions and upward distortion. Bivariate correlation analyses were used to test hypotheses 2 and 3. An examination of Table 18 reveals that, in general, hypothesis 2 was supported. Upward distortion was positively associated with negative emotions for favorable cases. The correlations for unfavorable cases were in the predicted direction for anxiety and fear, although they were not statistically significant. Hypothesis 3 was also partially supported. Upward distortion was negatively associated with positive emotions for favorable cases. The correlations for unfavorable cases for curiosity, hope, and confidence were in the predicted direction, although not statistically significant. Contrary to hypothesis 3, rating distortion increased (rather than decreased) when the emotions of empathy, challenge, and expectant increased.

Correlations of cognitive appraisals and upward distortion. An examination of Table 18 reveals that, in general, hypothesis 4 was supported. Cognitive appraisals of harm were positively associated with upward distortion for both favorable and unfavorable cases. The correlation between distortion and the cognitive appraisal of threat/danger was not statistically significant for favorable cases. Hypothesis 5, however, was not supported. The cognitive appraisals of optimism and relevance were negatively correlated with distortion as predicted, although they were not statistically significant. Contrary to hypothesis 5, concern for another showed a strong positive correlation with distortion for both favorable ($r = .42$, $p < .01$) and unfavorable cases ($r = .34$, $p < .01$).

Correlations of beliefs and upward distortion. As predicted by hypothesis 8, beliefs of harmful outcomes were positively associated with upward distortion for unfavorable cases ($r = .53$, $p < .01$) and favorable cases ($r = .37$, $p < .01$). Beliefs of beneficial outcomes were negatively associated with upward distortion for unfavorable

cases (r = -.26, p < .05) and favorable cases (r = -.13, p = .14), providing support for hypothesis 9.

Correlations of psychological climate and upward distortion. Statistically significant associations were not observed between the two psychological climate variables and upward distortion. Hypothesis 10 was not supported, and perceptions of feedback environment were not statistically significantly associated with distortion, although a negative correlation was found for unfavorable cases (r = -.21, p = .12). Hypothesis 11 was also not supported, and perceived political considerations in performance appraisal was not statistically significantly related with distortion, although the correlations were positive.

Mediation analyses. Hypotheses 6 and 7 were tested using the Sobel (1982) test for indirect effects, and regression analyses for direct and total effects, as recommended by Baron and Kenny (1986). The Sobel test provides a more direct test of the indirect effect. That is, it directly addresses the question of whether or not the total effect of X on Y is significantly reduced with the addition of the mediator (Preacher & Hayes, 2004; MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002). Preacher and Hayes (2004) recommend that a more powerful strategy for testing mediation requires that 1) an effect exists to be mediated, and 2) the indirect effect be statistically significant in the direction predicted by the mediation hypothesis.

I used the SPSS macro developed by Preacher and Hayes (2004) that estimates the indirect effect *ab* with a normal theory (Sobel test) and bootstrap approach. Bootstrapping was used as an alternative approach to the use of the normal distribution for assessing the significance of the indirect effect (Preacher & Hayes, 2004; Efron &

Tibshirani, 1993; Mooney & Duval, 1993), and to address the power problem associated with asymmetries in the sampling distribution of *ab* (Bollen & Stine, 1990; Lockwood & MacKinnon, 1998; Shrout & Bolger, 2002). In addition, the SPSS macro performs the regression procedure to test the conditions for mediation recommended by Baron and Kenny (1986) that: a) the independent variable significantly predicts the mediator (path *a*), b) the mediator significantly predicts the dependent variable (path *b*), and c) when paths *a* and *b* are controlled, a previously significant relationship between the independent variable and dependent variable is reduced by a nontrivial amount.

Neither hypothesis 6 nor 7 were supported for mediation. Despite insufficient support for the first two conditions for some of the mediation hypotheses, I checked the third condition and the indirect effects. Table 19 presents the results of the direct effect (in which *Y* is regressed on *X* after controlling for *M*) and the bootstrap results for the indirect effect. The indirect effect was not statistically significant in the direction predicted by the mediation hypotheses.

Ancillary analyses. In addition to the analyses for hypothesized relationships, ancillary analyses were conducted. The distortion variable was dichotomized for respondents who responded "1 – not at all" as opposed to those who responded that they upwardly distorted their ratings (ranging from 2 = "slightly inflated" to 7 = "extremely inflated"). This ancillary analysis was performed to better understand the relationships between upward distortion (defined as not distorted at all versus upwardly distorted) and feedback valence.

A 2 (feedback valence) x 2 (upward distortion) chi-square analysis was used, and results are presented in Table 20. The chi-square analysis was not statistically

significant, χ^2 (1; n = 134) = 3.37, p = .07. It appears that whether respondents upwardly distorted ratings or did not distort ratings at all did not depend on feedback valence. For this data set, feedback valence and upward distortion (not at all versus distorted) were independent, and supervisors were likely to upwardly distort ratings for both favorable and unfavorable performance. While the results of the chi-square analysis were non significant, the odds ratio indicates that respondents were twice as likely not to distort ratings at all for favorable cases than for unfavorable cases.

Table 20

	Upward distortion		
Feedback valence	Not at all	Distorted	Total
Unfavorable	18	49	67
Favorable	28	39	67
Total	46	88	134

Discussion

The present study provides support that supervisor beliefs, cognitive appraisals, and emotions all play an important role in the upward distortion of ratings that must be fed back, regardless of feedback valence. Results in the present study in actual organizational settings replicated findings from previous laboratory research (Benedict & Levine, 1988), and found that upward distortion was higher for unfavorable than favorable performance appraisals, although it occurred for both. While feedback valence influenced the distortion of ratings that were fed back, other variables also played an

important role, suggesting several ways that distortion may occur: by feedback valence (in which unfavorable ratings are more distorted than favorable), and by 1) emotions, 2) cognitive appraisals, and 3) supervisors' beliefs.

Emotions. As expected, negative emotions were positively correlated with distortion. That is, as negative emotions decreased, upward distortion decreased. Positive emotions, on the other hand, were negatively correlated with distortion. As positive emotions increased, distortion decreased. It was striking that correlations were in the predicted direction, regardless of feedback valence. Negative emotions led to upward distortion, even when performance appraisals were *favorable*. Similarly, the positive emotion of interest led to lower levels of distortion, even when performance appraisals were *unfavorable*. Correlations for other positive emotions were in the predicted direction for unfavorable performance appraisals, although not all were statistically significant.

These results imply that there may be two routes to reducing rating distortion: increasing levels of positive emotion and/or decreasing levels of negative emotion. Positive and negative emotions are independent, and individuals may experience both within the same interaction (Kok et al., 2008). It appears that positive emotions, (particularly curiosity, interest, hope, and confidence) may enable individuals to stay open to information and remain objective regardless of feedback valence, thereby minimizing distortion. These results provide support for the broaden-and-build theory of positive emotion, in which positive emotions broaden individual's thought-action repertoire (Fredrickson, 2001).

In addition, increased levels of negative emotions such as anxiety and guilt may result in higher levels of upward distortion, even when the performance rated is favorable. These findings provide support for cognitive emotion theory that negative emotions predict avoidance behaviors, and lead individuals to act in self protective ways (such as upwardly distorting ratings) to avoid some perceived harm (Fazio et al., 2004; Lazarus, 1991a). Interventions aimed at reducing negative emotions, in addition to those aimed at increasing positive emotions, may minimize upward distortion.

Cognitive appraisals. The present research also addressed the question of what variables may precede emotions, given that they may be associated with upward distortion. In general, each of the cognitive appraisals specified by theory significantly predicted its corresponding emotion. However, less support was found for the theory that each cognitive appraisal accounts for the greatest proportion of variance in its associated emotion. With the exception of threat/fear, concern for another/empathy, and optimism/expectant, the cognitive appraisal/emotion relationships specified by theory did not consistently hold for both favorable and unfavorable performance appraisals. It appears that other cognitive appraisals, in addition to those specified by theory, account for a significant proportion of emotion variance.

Nevertheless, several of the relationships observed seem logical. For instance, in addition to danger/threat, success accounted for a significant proportion of variance in anxiety for favorable cases. This relationship seems plausible, as the appraisal that things have gone well might lead to lower levels of anxiety. Success also accounted for the greatest proportion of variance in confidence. It seems plausible that the appraisal that things have gone well would lead to increased levels of confidence. Finally, in addition

to optimism, helplessness accounted for a significant proportion of variance in hope for favorable cases. It seems plausible that the appraisal that "the situation is hopeless" and that the supervisor has little control over it would lead to reduced levels of hope. Thus, while all cognitive appraisals as specified by theory did not account for the greatest proportion of variance in the corresponding emotion, the relationships observed seem plausible. It appears that, in the context of performance appraisal, more than one cognitive appraisal may make a significant contribution to the prediction of the associated emotion. Further research with new samples may provide additional insight on these relationships.

Results also revealed that cognitive appraisals of harm were significantly associated with upward distortion, although benefit appraisals were not. In addition to hypothesized relationships, a follow up analysis revealed that helplessness was significantly associated with distortion (unfavorable PA: $r = .31$, $p < .01$; favorable PA: $r = .17$, $p = 08$). Overall results support cognitive emotion theory that harm appraisals lead individuals to act in specific, self-protective ways (such as upwardly distorting ratings) in response to a situation that they interpret to be harmful. Interventions aimed at minimizing cognitive appraisals of harm may reduce distortion.

Relationships between benefit appraisals and distortion were not statistically significant, although they were in the predicted direction for relevance (importance) and optimism. It may be that other benefit appraisals not examined in the present study are also negatively related to distortion. For instance, a follow up analysis with the cognitive appraisal of success revealed a negative relationship with upward distortion (unfavorable PA: $r = -.22$, $p < .05$; favorable PA: $r = -.13$, $p = .14$). Further research is needed to

explore these relationships. In general, however, results provide evidence that interventions aimed at a) minimizing cognitive appraisals of harm and b) enhancing some cognitive appraisals of benefit may reduce upward distortion.

Psychological climate. The psychological climate variables did not appear to lead to upward distortion for this data set, although feedback environment was correlated with upward distortion in the predicted direction. Political considerations in performance appraisal, however, did not demonstrate a significant correlation. Future research with larger samples is needed to better understand this relationship. Future research might also directly ask respondents why they upwardly distorted ratings, if in fact they did so, to further understand these relationships.

Supervisor beliefs. Stronger support was found for the relationship between supervisor beliefs about the likely outcome of feeding back performance appraisal and upward distortion. Distortion was positively associated with supervisor beliefs of harm and negatively associated with supervisor beliefs of benefit, regardless of feedback valence. Again, it was striking that supervisors who believed that feeding back the rating would result in some benefit (to either self or the other) were less likely to distort ratings, even when performance appraisals were unfavorable. Supervisors who believed that feeding back the rating would result in some harmful outcome were more likely to distort ratings, even when the performance appraisals were favorable. These findings provide support for the theory that supervisors' beliefs about the likely outcome of feeding back performance ratings exert an influence on rating behavior (Larson, 1984), consistent with previous research on the influence of beliefs and assumptions on behavior (Arygris &

Schön, 1974; Lazarus, 1991a; Kelly, 1955, 1970; Wegner & Vallacher, 1977; Weick, 1979).

Moreover, each item in the supervisor beliefs scales provides important information regarding factors that are related to upward distortion. A follow up examination of the relationship between distortion and each item revealed that correlations were strong for the items of concern for harming the direct report's self esteem (other protection) and fear that the direct report would be confrontational (self protection). Conversely, the beliefs that the direct report would be more motivated with the feedback and would accept accountability for improving performance led to lower levels of distortion. These findings were observed for both favorable and unfavorable performance appraisals, and suggest that feedback valence does not matter when supervisors hold a strong belief about the outcome of feeding back ratings. In addition, upward distortion appears to be designed for both self and other protection. These findings provide important information for interventions, and suggest that interventions to a) minimize harm beliefs, and b) enhance benefit beliefs may reduce distortion.

Summary. In sum, results of the present study provide evidence that feedback valence predicts upward rating distortion, but it is only part of the story. Other important variables, such as supervisors' beliefs, cognitive appraisals, and emotions, play a role in the upward distortion of ratings that must be fed back. It appears that interventions to reduce upward distortion may take two paths: a) to enhance benefit beliefs and positive emotions, and/or b) to minimize harm beliefs, cognitive appraisals, and negative emotions. The finding that supervisor beliefs and emotions were significantly associated with upward distortion in organizational settings provides correlational evidence for the

importance of these factors. Nevertheless, causal relationships cannot be determined with the survey design. Consequently, a follow up study was conducted in a controlled environment to determine whether beliefs actually influence emotion and upward distortion.

Study 2

Study 1 provided correlational evidence that supervisor beliefs are associated with upward rating distortion; however, direct effects could not be determined given the nature of the study design. In addition, results demonstrated that cognitive appraisals predict emotion, but the relationship between beliefs and emotions was not examined. Moreover, limited research exists on this relationship. Thus, the purpose of study 2 was to test empirically whether supervisor beliefs affect emotion and the upward distortion of ratings that must be fed back.

The second study addressed these questions by investigating the relative effects of anticipated face-to-face feedback (versus anonymous feedback) under different conditions of supervisor beliefs (harm or benefit). Study 1 examined these relationships for face-to-face feedback only, and did not separate the possible feedback effects (of anticipating face-to-face versus anonymous feedback) and supervisor beliefs. Hence, study 2 will examine the impact of these factors on upward rating distortion and emotion. If supervisor beliefs of beneficial outcomes minimize distortion regardless of feedback valence (as observed in the first study) and regardless of feedback requirement (as hypothesized in the second study), then it would seem that interventions aimed at supervisor beliefs could be particularly beneficial in minimizing upward rating distortion.

Feedback Requirement Effects

Previous research has found evidence that raters are more likely to distort ratings in an upward direction when they anticipate feeding back unfavorable ratings face-to-face versus anonymous or no feedback sharing (Fisher, 1979; Benedict & Levine, 1988; Ilgen & Knowlton, 1980; Klimoski & Inks, 1990). This effect has been attributed to a self-presentation strategy designed to protect or enhance how others perceive the person (Weary, 1979), and has been observed to be stronger when raters anticipate face-to-face contact than anonymous or no feedback sharing (Klimoski & Inks, 1990).

Previous research, however, has not examined the influence of feedback requirement on emotion. If upward distortion occurs as a result of self-presentation in anticipation of feeding back ratings face-to-face, then it seems plausible that raters would experience more anxiety when they anticipate face-to-face versus anonymous feedback sharing. That is, when anonymous feedback sharing is anticipated, there should be relatively no impact of self-presentation on upward distortion or anxiety. In contrast, ratings and anxiety should be affected by strategies designed for self-presentation in the anticipation of feeding back ratings face-to-face.

H1: Ratings will be higher when raters anticipate face-to-face versus anonymous feedback sharing.

H2: Anxiety will be higher when raters anticipate face-to-face versus anonymous feedback sharing.

Belief Effects

Previous research has also found evidence to support the theory that beliefs and assumptions exert a strong influence on behavior (Arygris & Schön, 1974; Lazarus,

1991a; Kelly, 1955, 1970; Wegner & Vallacher, 1977; Weick, 1979). Results from Study 1 provide further support that supervisor beliefs are significantly associated with upward distortion. While the relationship between beliefs and emotion has not been examined, it seems possible that supervisor beliefs are likely to influence both emotion and upward distortion. If a supervisor believes that the outcome of feeding back ratings will result in harm (such as that the direct report will react defensively), the supervisor is likely to experience the negative emotion of anxiety. In addition, the rater will modify the rating by upwardly distorting it to minimize the potential for a harmful outcome.

If, on the other hand, the supervisor believes that the outcome of feeding back the rating will result in some benefit (such as the direct report will want the appraisal in order to improve), anxiety and upward distortion should be lower. Moreover, the belief that the direct report will want to use the appraisal to improve (a benefit belief) should lead to the positive emotion of hope, which is defined as the belief that a desired outcome is possible.

H3: Beliefs of harmful outcomes in making an unfavorable performance appraisal will lead to higher levels of anxiety than beliefs of beneficial outcomes.

H4: Beliefs of beneficial outcomes in making an unfavorable performance appraisal will lead to higher levels of hope than beliefs of harmful outcomes.

H5: Beliefs of harmful outcomes in making an unfavorable performance appraisal will lead to higher ratings than beliefs of beneficial outcomes.

Interactive Effects

Effects of anticipated feedback requirement (face-to-face or anonymous) and beliefs are expected to interact with one another. Little or no rating distortion or anxiety

is expected when the rater holds a belief that there will be a beneficial outcome (the ratee will want the feedback in order to improve). Distortion and anxiety will be only slightly higher when the raters anticipate face-to-face versus anonymous feedback sharing, as there may be a small effect resulting from the face-to-face interaction itself. However, there should be minimal reason to upwardly distort the rating or to experience anxiety when the rater believes the ratee will want the feedback in order to improve, even when the rating must be fed back face to face. That is, the benefit belief should minimize, if not eliminate, the need to use a self-presentation strategy in anticipation of the face-to-face interaction.

On the other hand, the belief that the ratee will react defensively (harm belief) will lead to higher levels of anxiety and distortion when raters anticipate face-to-face versus anonymous feedback sharing, due to the influence of both the harm belief and the anticipation of the face-to-face interaction. Thus, distortion and anxiety will be the highest in this condition, although some distortion will also occur as a result of the harm belief when no face-to-face feedback is required.

H6: For beliefs of harm, anxiety will be higher when raters anticipate face-to-face versus anonymous feedback sharing, but – for beliefs of benefit – anxiety levels will not be significantly different. .

H7: For beliefs of harm, ratings will be higher when raters anticipate face-to-face versus anonymous feedback sharing, but – for beliefs of benefit – ratings will not be significantly different.

Method

Design and Participants

One-hundred twenty undergraduate students recruited from business courses at a midwestern university participated in the study. Overall sample ages ranged from 19 to 51, with an average of 25 years. The sample was 89% Caucasian, 6% African American, 3% Asian, and 2% Hispanic. Females made up sixty-two percent of the sample.

A 2 x 2 between-subjects factorial design was used. The first factor studied was feedback condition, and participants were required to make ratings for either face-to-face or anonymous feedback purposes. The second factor was beliefs about performance appraisal outcomes. Participants were either told that feedback recipients would likely become defensive when receiving the appraisal (belief of harm), or that feedback recipients would likely want the appraisal in order to improve (belief of benefit).

Procedure

Upon arrival for the study, participants were asked for informed consent, and were then randomly assigned to one of the four conditions. Participants were asked to imagine that they were a mentor for an underperforming student who was enrolled in an academic support program in the Center for Student Success. Participants were told that their task would be to evaluate the underperforming student's work, a scenario similar to that used by Waung and Highhouse (1997).

Participants then reviewed a packet of the student's recent academic performance materials, including exams, quizzes, and papers. The pattern of student performance in the academic materials reflected a below average score in the 65th percentile, and individual materials were randomly varied from the 60th to 70th percentile, a procedure

similar to that used in the Fisher (1979) and Benedict and Levine (1988) studies. Participants were asked to rate five dimensions of the student's performance and the student's overall performance, using a five-point scale from 1 (poor) to 5 (excellent). They also made a recommendation regarding whether the student should remain in the program or be dropped in order to allow other students to participate.

After making the ratings and recommendation, participants completed a questionnaire regarding emotions they experienced as part of the appraisal process. Next, they answered a manipulation check question to determine whether or not they understood how the underperforming student would likely react to the appraisal. Finally, they completed a demographic questionnaire. Appendix I presents the stimulus materials and questionnaires.

A pilot group of students (n = 20) evaluated the student's overall performance, using a five-point scale, ranging from 1 (poor) to 5 (excellent). The pilot raters did not anticipate feeding back the appraisal ratings to the student in any form. These raters evaluated the student's summated ratings as below average (M = 2.51, SD = .43) and the student's overall rating as below average (M = 2.50, SD = .51). During the debrief, raters reported that they understood that the student's overall performance on the academic scale for the university was a "D."

Independent Variables

Feedback requirement. Participants randomly assigned to the anonymous feedback condition were instructed to provide ratings and an overall recommendation after reviewing the academic packet. They were told that they would not meet with the student to feed back the ratings and recommendation. Rather, they were instructed to

complete a performance appraisal rating form that would be submitted to the Center for Student Success. Participants randomly assigned to the face-to-face feedback condition were told that they would be participating in a role play in which they would deliver the ratings and recommendation in a face-to-face meeting with the student.

Beliefs about performance appraisal outcomes. In the packet of background materials, participants received information about how the student would likely react to the performance appraisal. In the belief of harm condition, participants were informed that the student could become defensive when receiving appraisal. In the belief of benefit condition, participants were informed that the student would want the appraisal in order to improve performance.

Dependent Variable Measures

Emotion. Emotion was measured using the same scale as that described in Study 1. Participants made ratings of emotional adjectives based on instruments developed by Ellsworth and Smith (1988a; 1988b), and presented in Appendix E. Participants were asked to rate on a Likert-type scale from 1 (not at all) to 7 (strongly agree) the extent to which each of the adjectives described their emotional experience.

Performance appraisal rating distortion. Participants rated the student on scales provided on the performance appraisal form, using procedures similar to those in previous studies (Fisher, 1979; Benedict & Levine, 1988; Waung & Highhouse, 1997). Participants rated five dimensions of performance with a five-point scale, ranging from 1 (poor) to 5 (excellent), and also provided an overall performance rating. The five dimensions were as follows: 1) assimilation (recognition and retention of the main ideas from the class materials); 2) integration (understanding the relatedness of ideas from

various topic areas); 3) critical thinking (evaluating information with objective facts rather than opinions); 4) study skills (understanding and retaining course information with appropriate amount of study); and 5) tenacity (staying with goals until desired grade is achieved). The coefficient α reliability for the summated-performance dimensions was .79. Participants also made recommendations regarding whether the student should continue to participate in the program (1 = definitely drop; 2 = possibly drop; 3 = put on probation; 4 = possibly continue; 5 = definitely continue). Upward rating distortion was operationalized as the difference between mean ratings in the face-to-face feedback and anonymous feedback conditions, similar to procedures from previous research (Fisher, 1979; Klimoski & Inks, 1990). Appendix I presents the rating forms.

Trait PA/Trait NA. Trait NA and trait PA were measured using the PANAS scale (Watson, Clark, & Tellegen, 1988). Previous research has found evidence that trait NA may be related to inflated performance appraisal ratings (Fried, Levi, Ben-David, & Tiegs, 1999). The scale consists of two 10-item mood scales that comprise the Positive and Negative Affect Schedule (PANAS). Positive Affect (PA) reflects the extent to which a person feels enthusiastic, active and alert. Negative Affect (NA) is a general dimension of subjective distress that subsumes a variety of aversive mood states. Participants were instructed to indicate to what extent they felt this way in general, using a Likert-type scale from 1 (not at all) to 7 (extremely). The instrument is presented in Appendix I.

General beliefs of benefit and harm. Beliefs of benefit and harm were measured using the same scale as that used in Study 1 (presented in Appendix C) with the exception that the directions instructed participants to report their beliefs, in general, about the

likely outcome of feeding back performance ratings. These procedures are similar to those used in the instructions for the PANAS general scale. Participants were asked to rate on a Likert-type scale from 1 (not at all) to 7 (strongly agree) the extent to which each statement reflected their beliefs, in general, about the likely outcome of feeding back performance ratings.

Demographic questionnaire. Participants were asked to report their gender, ethnicity, age, year in school, field of study, and years of work experience. Demographic information was collected on a separate sheet within the questionnaire packet with a statement ensuring confidentiality. Appendix I presents the demographic questionnaire. Work experience was not a requirement to participate in the study, as the purpose of the study was to understand the effect of specific supervisor beliefs on emotion and upward distortion. However, ninety-eight percent of the sample had work experience with an average of 8 years of experience. Because individuals with work experience may be more likely to develop general beliefs about the likely outcome of feeding back performance ratings, general beliefs were measured and controlled as described in the results section. When controlling for general beliefs, all hypotheses that were significant remained significant, and those that were nonsignificant remained nonsignificant.

Results

Preliminary Analyses

Descriptive statistics. Descriptive statistics including means, standard deviations, scale reliabilities, and intercorrelations for study variables are presented in Table 21. All scales demonstrated acceptable reliabilities with the exception of the hope subscale

(α = .64), which consisted of the items of hope and expectant. Consequently, analyses were performed for both hope and expectant as single items.

Manipulation check. A manipulation check question was included on the post-evaluation questionnaire to assess if participants understood how the student might likely react to the appraisal. Ninety-seven percent of participants in the beliefs of harm condition responded that they believed the student would become defensive when receiving the appraisal. Ninety-seven percent of those in the beliefs of benefit condition responded that they believed the student would want the appraisal in order to improve. The two cases, in which participants did not understand the manipulation, were removed from the data set before performing analyses.

Hypotheses Testing

A two-way analysis of variance (ANOVA) was performed to test all hypotheses. Main effects were examined for hypotheses 1 – 5, and interactive effects for hypotheses 6 and 7. A summary table of results for hypotheses is presented in Table 22.

Performance appraisal summated ratings. An examination of main effects on summated ratings presented in Table 23 revealed that summated ratings were higher when made for face-to-face feedback purposes (M = 2.79, SD = .53) than anonymous purposes (M = 2.52, SD = .46), [F (1, 116) = 8.69, $p < .01$, η^2 = .07], providing support for hypothesis 1. As presented in Table 24, hypothesis 5 was also supported, and summated ratings were higher for beliefs of harm (M = 2.78, SD = .49) than beliefs of benefit (M = 2.54, SD = .51), [F (1, 116) = 6.83, $p < .05$, η^2 = .06].

Overall recommendation. An examination of main effects on overall recommendation presented in Table 23 revealed that overall recommendation were

higher when made for face-to-face feedback purposes (M = 3.73, SD = .94) than anonymous purposes, (M= 3.31, SD = .94), [F (1, 116) = 6.31, $p < .05$ $\eta^2 = .05$]. Hypothesis 1 was supported for overall recommendation. As presented in Table 24, overall recommendation was significantly different for beliefs of harm (M = 3.29, SD = .97) than beliefs of benefit (M = 3.76, SD = .90), [F (1, 116) = 7.99, $p < .01$, η^2= .07]. The differences were not in the predicted direction, however, and hypothesis 5 was not supported. Beliefs of benefit led to higher overall recommendation ratings for the underperforming student to continue in the support program than beliefs of harm.

Anxiety in performance appraisal rating. Main effects were examined for hypothesis 2 as presented in Table 23, and revealed that anxiety was higher when ratings were made for face-to-face feedback purposes (M = 2.35, SD = 1.33) than anonymous purposes (M = 1.85, SD = 1.18), [F (1, 116) = 7.36, $p < .05$, η^2= .05]. As presented in Table 24, anxiety was also higher for beliefs of harm (M = 2.55, SD = 1.50) than beliefs of benefit (M = 1.66, SD = .79), [F (1, 116) = 17.06, $p < .01$, $\eta^2 = .13$], providing support for hypothesis 3.

Hope in performance appraisal rating. As presented in Table 24, hypothesis 4 was supported. Hope was higher for beliefs of benefit (M = 3.73, SD = 1.36) than beliefs of harm (M = 2.49, SD = 1.22), [F (1, 116) = 27.51, $p < .01$, $\eta^2 = .19$]. Expectant was also higher for beliefs of benefit (M = 3.29, SD = 1.46) than beliefs of harm (M = 2.10, SD = 1.06), [F (1, 116) = 25.42, $p < .01$, $\eta^2 = .18$].

Interactive effects. Interactions were examined for hypotheses 6 and 7, and are presented in Figure 6 and Table 25. The interaction was not statistically significant for hypothesis 6, F (3, 114) = 1.87, *ns*. Beliefs did not moderate the relationship between

feedback condition and anxiety. For hypothesis 7, however, the interaction was statistically significant for summated ratings, F (3, 114) = 6.83, $p < .05$, $\eta^2 = .05$. The interaction was not statistically significant, however, for overall recommendation, F (3, 114) = .20, *ns*. Beliefs did not moderate the relationship between feedback requirement and overall recommendation.

Controlling for trait PA/NA and general beliefs. Trait PA/NA and general beliefs were measured to control for the possibility of these individual differences. General beliefs may develop as individuals internalize beliefs about outcomes over time through either experience or socialization processes (Larson, 1984). While beliefs about feeding back ratings in the specific experimental situation were manipulated, it was also possible that beliefs that participants held about feeding back performance ratings in general might influence results. Similarly, it was possible that trait NA and trait PA may have affected the results, as previous research has found evidence that trait NA is associated with inflated performance appraisal ratings (Fried et al., 1999).

Thus, additional analyses were performed using ANCOVA to assess whether the significant effects on the dependent variables held after the effect of the covariates (trait PA, trait NA, general beliefs of harm, general beliefs of benefit) were partialled out. Results of the analyses revealed that all hypotheses were still supported, after controlling for potential covariates. In addition, hypotheses that were not significant remained non-significant after partialling out covariates.

Discussion

Results of the present study provide support that supervisor beliefs influence emotion and upward rating distortion when ratee performance is poor. Beliefs of benefit

led to lower levels of anxiety and upward distortion than beliefs of harm. Beliefs of benefit also led to higher levels of hope than beliefs of harm. These findings provide support that supervisor beliefs exert an influence on rating behavior (Larson, 1984) and emotions.

Main effects were also observed for feedback requirement, and distortion and anxiety were higher when ratings were made for face-to-face feedback than anonymous purposes. This finding replicates prior research (Fisher, 1979; Benedict & Levine, 1988; Ilgen & Knowlton, 1990; Stockford & Bissel, 1949; Waung & Highhouse, 1997), and provides support for the theory that supervisors upwardly distort ratings for self presentation when they anticipate feeding back ratings face-to-face (Weary, 1979; Ilgen & Knowlton, 1990).

Interactions were observed for summated ratings, such that distortion was higher for beliefs of harm when raters anticipated face-to-face versus anonymous feedback sharing, but differences for feedback requirement were minimal for beliefs of benefit. These findings suggest that beliefs of benefit exert a significant influence on supervisors' rating behavior, and may eliminate or reduce the need to engage in self presentation strategies designed for protection in anticipation of the face-to-face feedback. A significant interaction was not observed for anxiety, although the means for each condition were in the expected direction. The means for anxiety were toward the low end of the scale, and anxiety levels triggered by the hypothetical role play may not have been enough to observe an effect. Raters may experience higher levels of anxiety in actual organizational settings where the consequences of performance appraisal matter and where supervisors and direct reports have ongoing working relationships. Future

research might further explore the effect of beliefs on anxiety experienced during actual interactions.

While the interaction for overall recommendation was not significant, main effects for feedback requirement and supervisor beliefs were observed. As found in previous research (Waung & Highhouse, 1997), raters provided higher recommendations for the underperforming student to continue in the program when they anticipated feeding back the rating face-to-face. This result supports the theory that raters may have been engaging in a self-protection strategy to minimize the potential conflict of communicating a low recommendation to the student face-to-face.

Interestingly, however, supervisor beliefs also influenced the recommendation such that when raters were more likely to recommend dropping the student from the program when they believed the student would react defensively. When raters believed the student wanted the feedback in order to improve, on the other hand, they were more likely to recommend the student to continue in the support program. Hence, the feedback effect of anticipating face-to-face contact appears to have led to a self presentation strategy to avoid conflict in the face-to-face setting.

At the same time, the belief that the student would want the feedback in order to improve led to a higher recommendation to continue in the program, regardless of feedback requirement. It seems that the raters may have been giving the student the benefit of the doubt to continue in a support program that they perceived the student not only needed but would want (as evidenced by the student's desire for feedback to improve). It was striking that raters provided candid (less distorted) ratings when they believed the student wanted to improve while also providing higher overall

recommendations for the student to continue in the program. Having the opportunity to continue in the support program along with receiving a candid (albeit unfavorable) appraisal would seem to be of significant benefit to the underperforming student to improve their overall performance.

In sum, findings provide support that beliefs exert an influence on both emotion and upward distortion when supervisors must feed back ratings for unfavorable performance. Given the exact same performance data (below average, "D" academic performance), raters were less likely to distort ratings when they believed the ratee would want the feedback to improve than when they believed the student would react defensively, regardless of whether the ratings were fed back face-to-face or were anonymous. The fact that these differences were observed in a laboratory setting through the manipulation of instructions suggests that beliefs are malleable, and may be modified through interventions aimed at improving supervisors' candor in feeding back ratings. Interventions aimed at enhancing benefit beliefs and minimizing harm beliefs may lead to more candid (less distorted) ratings in organizations when employee performance is unfavorable.

General Discussion

The purpose of the present research was to understand factors that may alleviate the upward distortion of ratings that must be fed back. Overall results revealed that distortion may be reduced by feedback valence, feedback requirement, and supervisor beliefs. Feedback valence influenced distortion in Study 1, replicating prior research that distortion is higher when performance is unfavorable than favorable (Fisher, 1979; Benedict & Levine, 1988). Feedback requirement also influenced distortion in Study 2,

supporting previous research that distortion is higher when raters anticipate face-to-face versus anonymous or no feedback sharing (Fisher, 1979; Benedict & Levine, 1988; Knowlton & Ilgen, 1980). The present research, however, revealed that feedback valence and requirement are only part of the story in upward distortion. Across the two studies conducted in both actual work settings and in a controlled environment, supervisor beliefs influenced upward distortion.

In Study 1, benefit beliefs minimized distortion, even when performance was unfavorable. Harm beliefs accentuated distortion and negative emotions, even when performance was favorable. In follow up analyses, supervisors holding harm beliefs appear to have engaged in strategies designed for both self- and other-protection by upwardly distorting ratings to avoid a perceived harm. In Study 2, given exactly the same objective performance data (below average, "D" academic performance), raters who held a benefit belief were less likely to distort ratings and reported lower levels of anxiety and higher levels of hope than those who held harm beliefs. It was striking that these results held regardless of whether the ratings were made for face-to-face or anonymous purposes. It appears that benefit beliefs may reduce or eliminate the self-presentation strategies associated with feeding back unfavorable ratings face-to-face. Taken together, results of both studies have important implications, and imply the significant role that supervisor beliefs play in upward distortion and emotion, regardless of feedback valence and requirement.

Theoretical Contributions

While performance appraisal research has investigated negative influences on upward distortion, less emphasis has been placed on positive factors that may minimize

it. A contribution of the present research was that it took a balanced approach in examining factors that may both accentuate and attenuate distortion. This approach is consistent with an emerging view that psychology should examine the positive aspects of human experience as rigorously as it does the negative aspects (Luthans, 2002a; Luthans, 2002b; Lazarus, 2003, Seligman & Czikszentmihalyi, 2000). In the present study, benefit beliefs attenuated upward distortion - even when performance was unfavorable. Conversely, harm beliefs accentuated distortion, even when performance was favorable. By taking a balanced approach, the present research revealed important relationships that may not have been discovered by emphasizing negative factors alone.

The present study also contributes to performance appraisal theory in that it is one of the first to empirically examine the role of emotions in performance appraisal. While emotions such as anxiety, fear, and dread have been frequently reported anecdotally in the literature (Cannon & Witherspoon, 2005; Muchinsky, 2007; Waung & Highhouse, 1997), a dearth of empirical research on emotion exists. The findings also contribute to emotion theory by empirically documenting the antecedents and consequences of positive emotion. While previous research has identified the antecedents of negative emotion, relatively less is known about the antecedents of positive emotion (Fredrickson, 2001). Moreover, positive emotion has been associated with outcome measures such as health and well-being in the emotion literature (Fredrickson, 2000). The present study extends this research to organizational settings by documenting the relationship between positive emotion and the outcome measure of upward rating distortion.

Practical Implications

In addition to these theoretical contributions, the present research has important practical implications by informing potential interventions to alleviate distortion. Based on the findings, interventions could be tested to coach supervisors to use emotional regulation strategies to become more aware of their beliefs (Gross, 1998). Strategies to reframe beliefs may enhance positive emotions that enable supervisors to maintain objectivity and perspective (Gross, 1998; Fredrickson & Joiner, 2000; Tugdale & Fredrickson, 2006). For instance, supervisors might be trained to consider outcomes that would be of mutual benefit to both the self (supervisor) and direct report, and then work toward those outcomes. The beneficial outcomes that candid ratings will improve overall performance or increase trust in the relationship could be advantageous to both the supervisor and direct report.

Previous research suggests that changing behavior alone in not sufficient, because a supervisor's beliefs about likely outcomes can exert a significant influence on behavior (Larson, 1984; Avolio & Luthans, 2006; Kegan & Lahey, 2009; Argyris & Schön, 1974). In early studies emphasizing feedback-giving behavior alone (Maier, 1958), trained clinicians still became defensive when feeding back appraisal during role plays, despite being coached on their feedback-giving skills during time outs. Hence, interventions aimed at reframing beliefs, in addition to those aimed at developing feedback-giving skills, may be more likely to reduce anxiety and upward distortion than interventions emphasizing skill development alone. Future research is needed to test the effectiveness of various interventions.

Limitations

Several limitations to the present research exist. First, internal validity is limited with the survey design of Study 1, and generalizability of results to field settings is limited in Study 2. The limitations and advantages of each method, however, offset the other to provide more confidence in results. The survey design of Study 1 enabled the simultaneous study of a range of possible emotional experiences and antecedents not available in an experimental study. Working supervisors in Study 1 reported performance appraisals in organizational settings where they had ongoing relationships with direct reports and where ratings might have important implications for pay or promotions.

These circumstances did not exist in the controlled environment of Study 2. Moreover, the design involved a role play rather than an actual interaction between a supervisor and direct report, which may lead to less intense appraisals and emotion experienced (Beck, Emery, & Greenberg, 1985; Lazarus & Folkman, 1984; Skinner & Brewer, 2003). Yet, these differences between actual work settings and the controlled environment in Study 2 suggest that upward distortion might occur to an even greater extent in actual work settings where the impact of performance ratings may be more consequential. Moreover, the controlled environment in Study 2 enabled the assessment of the direct effects of beliefs on emotion and upward distortion.

Secondly, only a few of the range of positive emotions were investigated, based on those explored in previous research (Ellsworth & Smith, 1988a). Yet, it is possible that other positive emotions such as alertness, calm, and self-assuredness may minimize upward distortion. Moreover, previous research has not adequately captured the

cognitive appraisals that precede positive emotions (Ellsworth & Smith, 1988b; Smith & Lazarus, 1993). This may have limited the ability to detect relationships between cognitive appraisals of benefit and associated emotions in the present research. Hence, future research might explore a broader range of positive emotions and the potential cognitive appraisals that precede them to aid in the prediction of positive emotions.

A final limitation is that emotions were not explored as they occur in real time in the present research. Rather, participants reported emotions after feeding back appraisal. Future research using the experience sampling method might examine emotions as they occur in real time, and could reveal the temporal dynamics of beliefs and emotions (Smith & Lazarus, 1993). The left-hand column case method developed in action science (Argyris & Schön, 1974) may also be a methodological approach to investigate emotions as they are experienced in the moment when feeding back performance appraisal. While this case methodology was used in organizational settings in Study 1, it was not used in real time. In action science, however, researchers capture the cognitive appraisals and emotions as they are occurring during an interaction or role play (Argyris & Schön, 1974; 1978; Argyris, 2004). Future research might build on this methodology to explore actual emotions experienced as they are occurring in the process of feeding back appraisal.

Future Research

In addition to those mentioned, several possibilities for future research exist. First, future research might refine the supervisor beliefs of outcomes scale to provide an instrument for further testing of theory on the process of feeding back appraisal. The scale was developed as an initial attempt to measure possible beliefs that supervisors may hold, as no scales were available in the performance appraisal literature. However,

additional refinement and development of this scale is needed through writing new items, modifying existing items, and cross validating the model with new samples using confirmatory factor analysis.

Second, the present research examined direct relationships between supervisor beliefs, cognitive appraisals, and emotions, but more complex moderating relationships may exist. For instance, psychological climate was not statistically significantly associated with upward distortion, although correlations were in the predicted direction. It is possible that psychological climate moderates the relationship between supervisor beliefs and upward distortion. Moreover, other important moderating relationships might be explored in future research. For instance, the quality of leader-member exchange or trust in the supervisor/direct report relationship may moderate the relationship between supervisor beliefs and upward distortion. A conceptual framework that explicates moderating and mediating relationships in the process of feeding back appraisal is needed to guide future empirical research.

Finally, future research is needed on the influence of supervisors' broader motives on emotions and upward distortion. Lazarus (1991a) maintains that individuals' motives are organized in a hierarchy around specific goals on the one hand and broader, global goals on the other (such as achievement, affiliation, and control). It is possible that these broader motives have a direct effect on specific supervisor beliefs about performance appraisal outcomes. That is, if a supervisor is committed to pursuing the broader goal of affiliation (approval), this goal may influence the supervisor's specific belief (that the direct report will not like them, for example). Moreover, there may be a bi-directional relationship in which specific beliefs that develop over time influence

global motives, and global motives also influence specific beliefs. Future research might explore these more complex relationships.

Conclusion

In sum, the present research was an initial exploration to unravel the "performance appraisal enigma" (Kikoski & Litterer, 1983) that has troubled organizations over the past several decades. As such, it provides evidence that supervisor beliefs may lead to positive emotions and alleviate upward rating distortion, regardless of feedback valence or feedback requirement. Future research that continues to investigate these and other factors along with potential interventions to minimize distortion could be fruitful.

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Figure Captions

Figure 1. Framework for antecedents of rating distortion.

Figure 2. Model for emotion as a mediator of the relationship between cognitive appraisals and upward rating distortion.

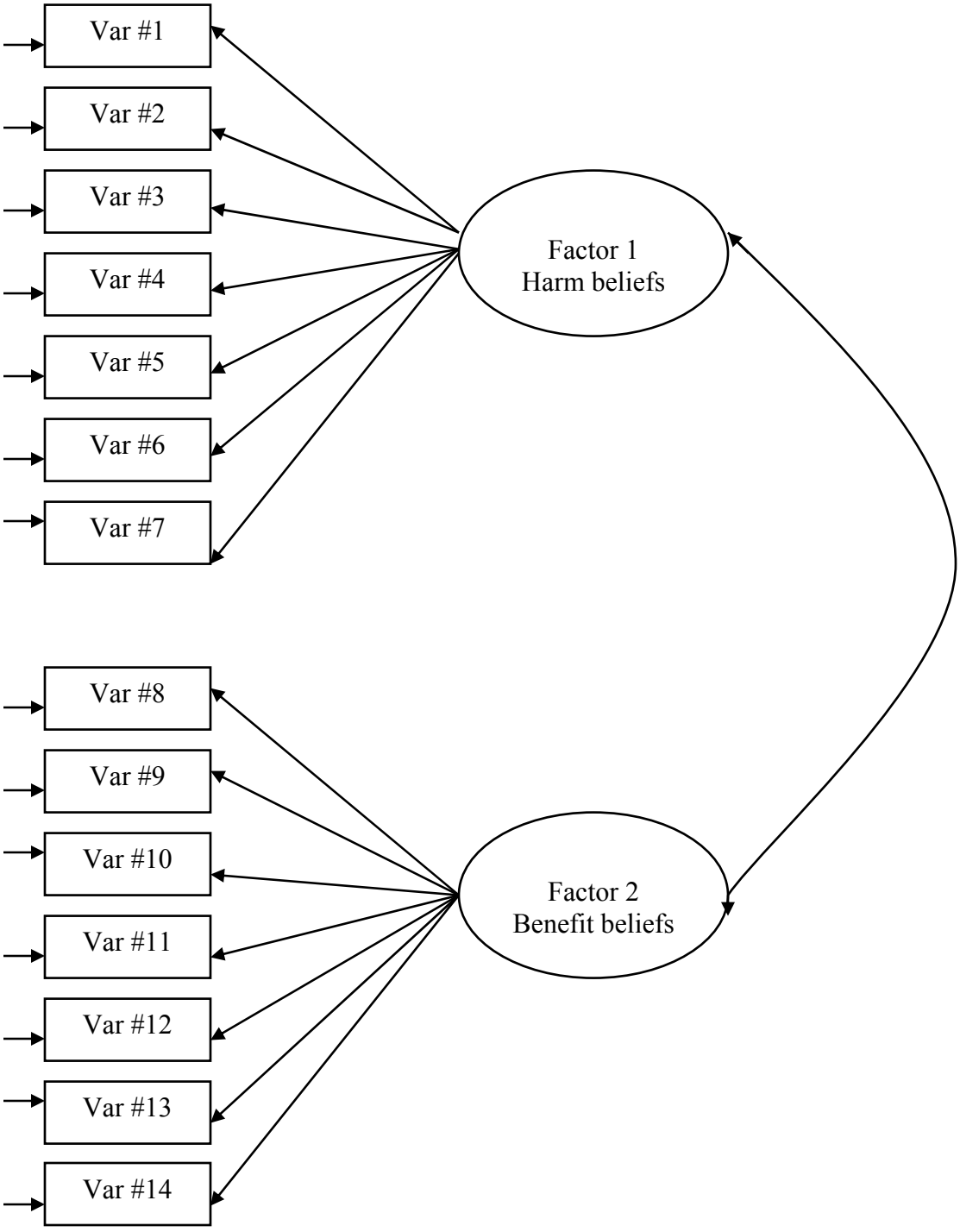
Figure 3. Measurement model for confirmatory factor analyses.

Figure 4a. Anxiety: Interaction of feedback and belief conditions

Figure 4b. Summated ratings: Interaction of feedback and belief conditions

Figure 4c. Recommendation: Interaction of feedback and belief conditions

Figure 3


Var #1
Var #2
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Factor 1
Harm beliefs
Var #8
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Var #12
Var #13
Var #14
Factor 2
Benefit beliefs

Figure 4

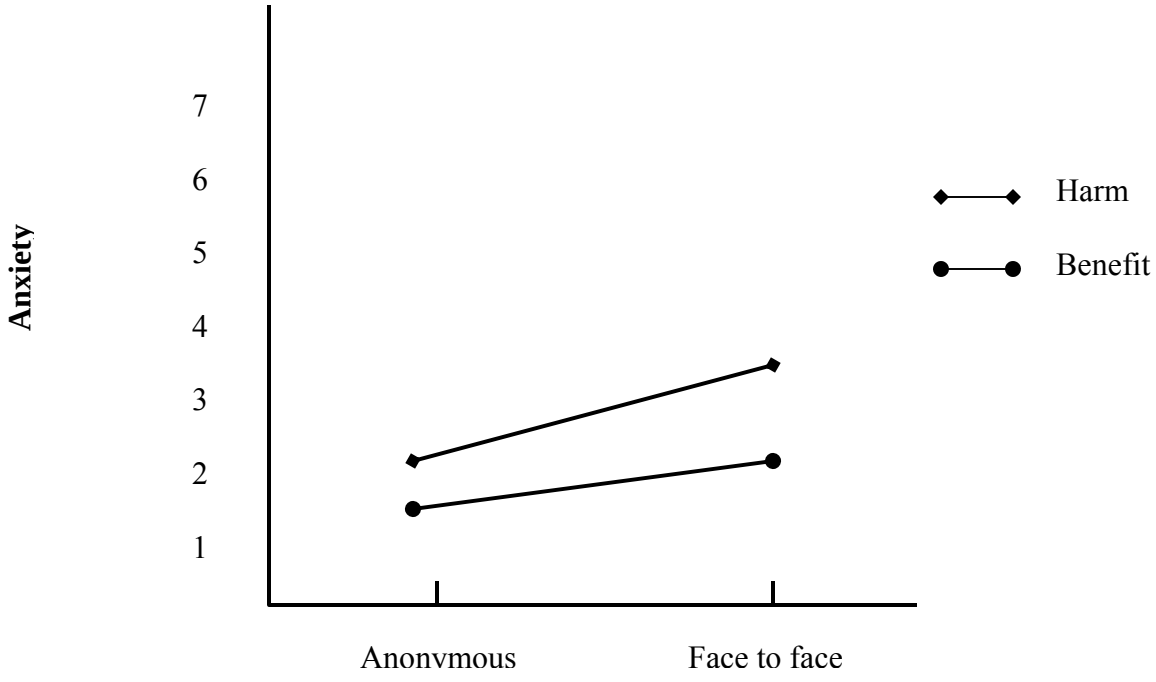

Figure 4a. Anxiety: Interaction of feedback and belief conditions

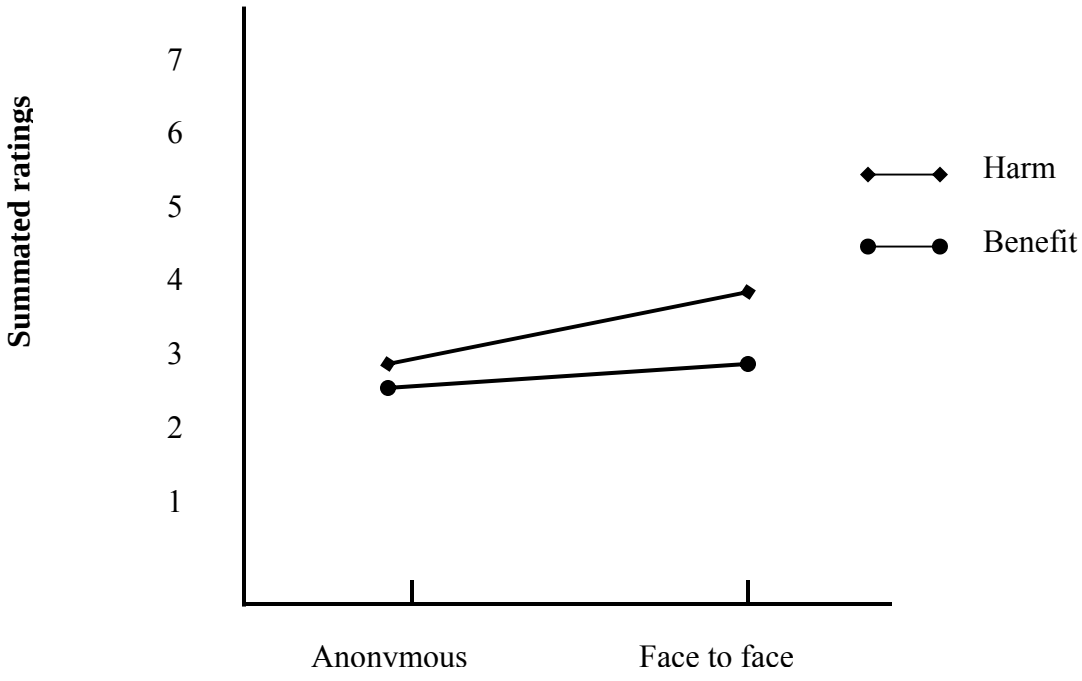

Figure 4b. Summated ratings: Interaction of feedback and belief conditions

Figure 6

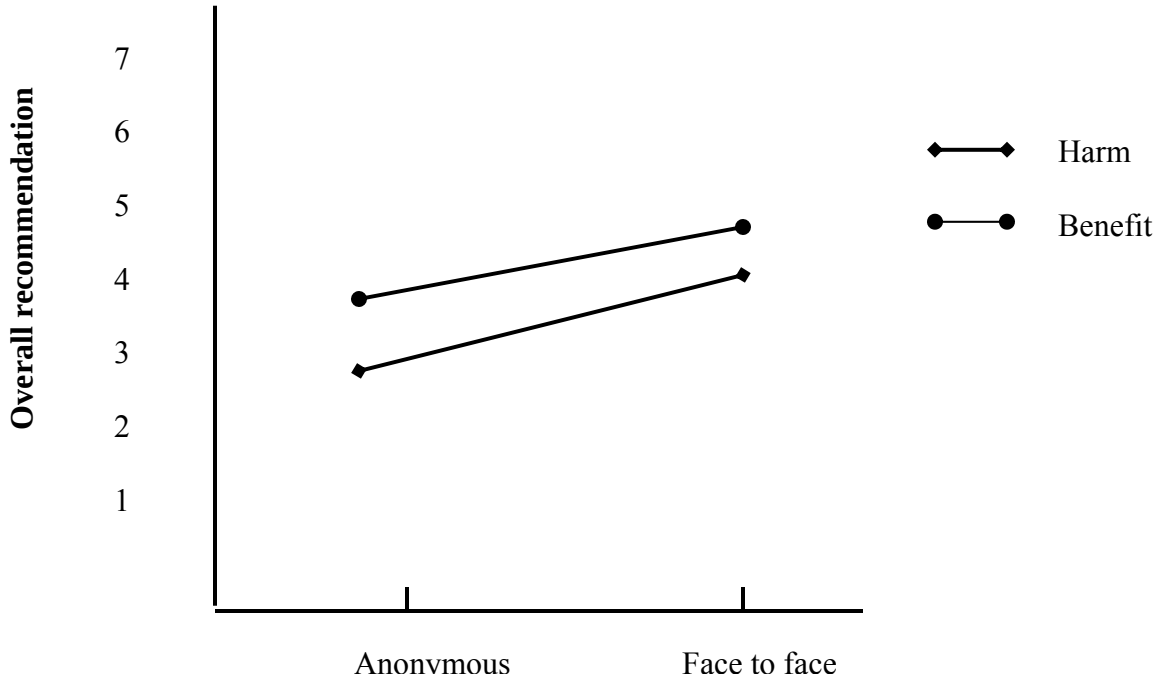

Figure 4c. Overall recommendation: Interaction of feedback and belief conditions

Appendix A

Core Relational Themes

Emotion	Cognitive Appraisal	Definition
Anger	Other blame	Being cheated or wronged
Anxiety/fear	Danger/threat	Facing an uncertain, existential threat
Curiosity	Openness	Being genuinely curious about what is happening
Empathy	Concern for another	Being moved by another's suffering and wanting to help
Guilt/embarrassment	Self-blame	Having transgressed a moral imperative; failing to live up to an ego ideal.
Happiness	Success	Feeling that things have turned out great
Hope/challenge	Optimism	Fearing the worst but yearning for better; believing the wished for improvement is possible
Interest	Relevance	Something important to me is happening in this situation
Relief	Removal of threat	Feeling that a threat or harm has been removed
Resignation	Helplessness	Feeling powerless and helpless

Appendix B

Study 1: Performance Appraisal Survey

Performance Appraisal Study
Survey 1

Thank you for taking the time to participate in this two-part survey on performance appraisal. This first survey will take approximately 30 - 45 minutes to complete and consists of three sections. The second survey will also take approximately 30 - 45 minutes for a total of an hour and a half of your time. You will receive credit as designated by your instructor upon completion of both surveys.

Overview of Sections

Section I involves describing a recent **unfavorable [favorable]** performance appraisal that you delivered to a direct report who was not performing well.

Section II involves a set of questionnaires regarding the performance appraisal discussion.

Section III involves a background questionnaire.

Section I: Unfavorable [Favorable]Performance Appraisal

Part I

Directions: Briefly describe the context of an **unfavorable [favorable]** performance appraisal you recently delivered to a direct report by answering the questions below. Please do not use the actual name of your direct report or your company's name to ensure confidentiality.

a) Briefly describe your direct report's job responsibility (i.e, manager of an IT department, financial analyst, sales representative, etc.)

b) What did you intend to accomplish in this performance appraisal discussion?

Part II

Directions: In the section below, type a sample of the performance appraisal discussion involving you and your direct report (as you best remember it). Type the dialogue as if presenting a script. Don't write a summary or description of the discussion. On the right hand side of the page, type what you said to your direct report, how s/he responded, and what you said next. On the left-hand side of the page, write down any thoughts or feelings you had at the time and did not say. An example is provided on the next page.

What *I* was thinking/feeling and didn't say	**What I and my direct report *actually said***
	I said:
	S/he said:
	I said:
	S/he said:
	I said:
	S/he said:
	I said:
	S/he said:

[Please cut and paste the above rows if you need additional space]

Part III

Directions: Please answer the following questions about the performance appraisal rating.

1) What was the performance appraisal rating (score) that you gave to this direct report?

2) Rate the extent to which you inflated the rating more positively than the direct report's actual performance warranted.

Not at all	Slightly inflated	Somewhat inflated		Moderately inflated	Very inflated	Extremely inflated
1	2	3	4	5	6	7

Sample of Performance Appraisal Discussion	
What *I* was thinking/feeling and didn't say	**What I and the other person *actually said***
I'll bet she is going to complain about all of the work she has.	**I said:** Your performance has not been up to expectations these past few months.
Thought you might blame it all on me.	**He said:** I think I've done exactly what I've been asked to do with the extensive changes you've made.
I can't do your job for you. If I didn't constantly follow up on you, you'd do the same thing you've always done and just sit back.	**I said:** I agree the past 3 months have brought a lot of changes, and I know your job has been more challenging as a result. I need you to step up, though, and not sit back as you have been.
Can you really think you're doing such a good job? You're terrible.	**He said:** I've done a good job the past several years. I don't know why all of a sudden my performance is unacceptable.
Your previous supervisor didn't tell you the truth. Why didn't he fire you?	**I said:** I don't think your previous supervisor asked you to do what I'm asking.
	He said: Maybe I'm not the right person for the job.
I'm taking a big chance on you. This initiative is important to our team – and you don't have the right skill set for this job.	**I said:** I think you can be very successful. You need to make progress on this recent initiative to prove yourself.
ARGH!! It's a train wreck.	**He said:** Yes, I'm already making progress.

Appendix C

Beliefs about Performance Appraisal Outcomes Questionnaire

Directions: Please indicate on a scale of 1 (not at all) to 7 (strongly agree) to what extent the following statements characterized your beliefs about the possible outcome of delivering the performance appraisal rating.

Beliefs of harm

1) My direct report will not like me after I deliver the appraisal.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

2) My direct report will become confrontational or defensive when I deliver the appraisal.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

3) I will harm my direct report's self-esteem when I deliver the appraisal.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

4) I will harm our supervisor-subordinate relationship when I deliver the appraisal.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

5) I will embarrass my direct report when I deliver the appraisal.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

6) I will make my direct report angry when I deliver the appraisal.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

7) I won't be able to handle this performance discussion skillfully.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

Beliefs of benefit

8) My direct report will want the appraisal in order to improve performance.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

9) My direct report will accept accountability for his or her performance after receiving the appraisal.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

10) My direct report may have information that I am missing about his or her situation.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

11) My direct report will know that I notice and pay attention to his or her performance.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

12) My direct report will become more motivated after receiving the appraisal.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

13) My direct report will be more satisfied after receiving the appraisal.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

14) The trust in our relationship will increase after I give my direct report the appraisal.						
1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

Note. The distinctions of "beliefs of harm" and "beliefs of benefit" were not included in actual questionnaires.

Appendix D

Core Themes Questionnaire

Directions: Please read each statement carefully, and indicate your level of agreement or disagreement with each statement regarding your thoughts about this performance appraisal discussion.

Other-blame

1) I have been cheated or wronged.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

2) I think my direct report is to blame for my having to deliver this feedback.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

3) I think I've been dealt with unfairly.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

4) I think the jerk is interfering with my goals.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

5) I think the jerk is trying to take advantage of me.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

6) I think this bad outcome would have been prevented if my direct report had been worthy of respect.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

Self-blame

7) I think things are bad with my direct reports performance because of me.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

8) I have done something bad to affect my direct report's performance.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

9) I am to blame for my direct report's performance.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

Danger/threat

10) I am at risk and may not be able to handle this performance appraisal discussion.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

11) I don't know whether I could handle what was about to happen in this performance appraisal discussion.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

12) I feel threatened by this performance appraisal discussion.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

Helplessness/harm

13) I think nothing can ever be done to fix my direct report's performance.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

14) I think this situation with my direct report is hopeless.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

15) I think this situation with my direct report is never going to improve.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

16) I feel helpless.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

17) I don't see anything I can do to improve this bad situation with my direct report.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

18) I seem to be powerless to make things right.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

Optimism

19) If I try hard enough, I can get what I want in this performance appraisal discussion.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

20) With some effort, I can make things better.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

21) Somehow, I think things will work out.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

22) In the end, I think there is a chance everything will be okay.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

23) I feel that things are going to get better.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

Relevance

24) I think this situation with my direct report touches on my personal concerns.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

25) I think there are important things to think about here.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

Openness

26) I wonder what might be the reason for my direct report's behavior.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

27) I wonder how I might be affecting my direct report's performance.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

28) I may be missing information my direct report has about his or her situation.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

Removal of threat

29) I believe things have worked out after all with this performance appraisal discussion.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

30) I believe a threat or harm has been removed with this performance appraisal discussion.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

31) I believe a burden has been lifted from my mind during this performance appraisal discussion.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

Success

32) I've gotten what I wanted in this performance appraisal discussion.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

33) I think things have gone wonderfully well in this performance appraisal discussion.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

34) I think things turned out great in this performance appraisal discussion.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

Concern for another

35) It bothers me that my direct report is in trouble.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

36) I think my direct report needs help.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

Note. The underlined categories for core themes were not included in the actual questionnaires.

Appendix E

Emotion Questionnaire

Directions: Please indicate on a scale from 1 (not at all) to 7 (extremely) the extent to which each of the adjectives below characterizes how you felt about this performance appraisal discussion.

	Not at all	Very little	A little	Somewhat	Moderately	Quite a bit	Extremely
Angry	1	2	3	4	5	6	7
Scornful	1	2	3	4	5	6	7
Contemptuous	1	2	3	4	5	6	7
Resentful	1	2	3	4	5	6	7
Disgusted	1	2	3	4	5	6	7
Frustrated	1	2	3	4	5	6	7
Guilty	1	2	3	4	5	6	7
Ashamed	1	2	3	4	5	6	7
Embarrassed	1	2	3	4	5	6	7
Nervous	1	2	3	4	5	6	7
Afraid	1	2	3	4	5	6	7
Anxious	1	2	3	4	5	6	7
Uneasy	1	2	3	4	5	6	7
Apprehensive	1	2	3	4	5	6	7
Resigned	1	2	3	4	5	6	7
Hopeful	1	2	3	4	5	6	7
Expectant	1	2	3	4	5	6	7
Challenged	1	2	3	4	5	6	7
Confident	1	2	3	4	5	6	7
Proud	1	2	3	4	5	6	7
Surprised	1	2	3	4	5	6	7
Curious	1	2	3	4	5	6	7
Interested	1	2	3	4	5	6	7
Happy	1	2	3	4	5	6	7
Elated	1	2	3	4	5	6	7
Amused	1	2	3	4	5	6	7
Relieved	1	2	3	4	5	6	7
Sad	1	2	3	4	5	6	7
Empathy	1	2	3	4	5	6	7

Appendix F

Feedback Environment Scale (FES)

Directions: Please rate the extent to which the statements below characterize your organization on a scale of 1 (not at all) to 7 (strongly agree).

1) When employees don't meet deadlines in my organization, supervisors let them know.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

2) Supervisors in my organization tell employees when their work performance does not meet organizational standards.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

3) On those occasions when employees' job performance falls below what is expected, supervisors in my organization let them know.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

4) On those occasions when employees make a mistake at work, supervisors in my organization tell them.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

Appendix G

Questionnaire of Political Considerations in Performance Appraisal (QCPA)

Directions: Please rate the extent to which the statements below characterize your organization on a scale of 1 (not at all) to 7 (strongly agree).

1) Supervisors in my organization give performance ratings to employees that will make them look good to their superiors.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

2) The quality of supervisor-employee personal relationships throughout the rating period affects the performance rating.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

3) Supervisors avoid giving performance ratings which may have negative consequences for the employee (i.e., demotion, lay-off, no bonus, salary freeze).

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

4) Supervisors inflate performance ratings in order to maximize rewards offered to their employees (i.e., salary increases, promotions, prestigious assignments).

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

5) Supervisors inflate performance ratings in order to maintain a positive image of their department to others.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

6. Supervisors give low performance ratings because they fear that their employees will try to be transferred to another boss.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

7. Supervisors inflate performance ratings of those employees who are able to procure

them special services, favors, or benefits.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

8. Supervisors inflate performance ratings of employees who have access to valuable sources of information.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

9) Supervisors' performance ratings reflect in part their personal liking of the employees.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

10) Supervisors' performance ratings are affected by the extent to which employees are perceived as sharing the same basic values as they do.

1	2	3	4	5	6	7
Not at all	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

Appendix H

Study 1: Demographic Information

Part I

Directions: Please provide the following demographic information about yourself and your direct report. Your responses will be completely confidential.

Your gender	Male	Female

Your age	

Your ethnicity	
	African American
	Asian/Pacific Islander
	Caucasian/white
	Hispanic/Latino
	Native American
	Other (please specify)

Your year in school	
	Freshman
	Sophomore
	Junior
	Senior
	MBA
	Other (please specify)

Your field of study	
	Business (specify major)
	Psychology
	Other (please specify)

Gender of your direct report	Male	Female

Ethnicity of your direct report	
	African American
	Asian/Pacific Islander
	Caucasian/white
	Hispanic/Latino
	Native American
	Other (please specify)

Part II: **Background information**.

Directions: Please provide the following background information in the spaces provided below. Your responses will be completely confidential.

Work experience	
1) How many years of work experience do you have?	
2) What is the type of industry of the organization for whom you work?	
3) Approximately how many employees are there in your department?	
4) What is your position title?	
5) How many years of supervisory experience do you have?	
6) How many employees do you supervise?	

Experience with delivering face-to-face performance appraisals	
1) How many times have you delivered face-to-face performance appraisals in a work setting?	
2a) What is your typical strategy in delivering unfavorable face-to-face performance appraisals? 2b) What has been the outcome of your delivering unfavorable face-to-face performance appraisals?	
3a) What is your typical strategy in delivering favorable face-to-face performance appraisals? 3b) What has been the overall outcome of your delivering favorable face-to-face performance appraisals?	

Appendix I

Study 2 Instructions for Belief of Harm Condition

Instructions for Assessing Academic Packet

Please review the attached packet of academic materials for Terry Becker. Terry is an undergraduate student who is participating in an academic support program through the Center for Student Success.

The Center for Student Success asks student mentors and instructors to provide feedback on the performance of students who are in the program. Imagine that you are a student mentor, and you have been asked to assess Terry Becker's overall performance [*Face-to-face condition*: and to then meet with Terry to discuss your ratings.]

Please complete the following steps:

Step 1.
Please review the packet of Terry's materials, which include quizzes, exams, and papers.

Step 2.
After you have reviewed the materials, please complete the evaluation rating form. You will need to evaluate Terry's overall performance. In addition, you will need to make an overall recommendation for Terry. There are a limited number of slots available in the support program, due to the small number of staff available to work with students. Because of this, you will need to make a recommendation as to whether Terry should remain or be dropped from the program, in order to allow other students to participate.

You should be aware that Terry has been in the support program since fall semester '08. Terry's advisor shared feedback with Terry last semester, and indicated that Terry became extremely defensive when they discussed the evaluations.

Step 3.
[*Face-to-face condition*]: After you have reviewed the attached materials and completed the evaluation rating form, please place them in the manilla envelope. You will then participate in a role play in which you will meet with Terry and discuss your ratings and overall recommendation.

[*No face-to-face feedback required condition*]: The Center for Student Success will average the ratings of Terry's instructors and mentor (your ratings) this semester, so Terry will not know the rating that you provided. After you have reviewed the attached materials and completed the evaluation form, please place them in the manilla envelope.

Study 2 Instructions for Belief of Benefit Conditions

Instructions for Assessing Academic Packet

Please review the attached packet of academic materials for Terry Becker. Terry is an undergraduate student who is participating in an academic support program through the Center for Student Success.

The Center for Student Success asks student mentors and instructors to provide feedback on the performance of students who are in the program. Imagine that you are a student mentor, and you have been asked to assess Terry Becker's overall performance [*Face-to-face condition*: and to then meet with Terry to discuss your ratings.]

Please complete the following steps:

Step 1.
Please review the packet of Terry's materials, which include quizzes, exams, and papers.

Step 2.
After you have reviewed the materials, please complete the evaluation rating form. You will need to evaluate Terry's overall performance. In addition, you will need to make an overall recommendation for Terry. There are a limited number of slots available in the support program, due to the small number of staff available to work with students. Because of this, you will need to make a recommendation as to whether Terry should remain or be dropped from the program, in order to allow other students to participate.

You should be aware that Terry has been in the support program since fall semester '08. Terry's advisor shared feedback with Terry last semester, and indicated that Terry was extremely open to the feedback and wanted it in order to improve.

Step 3.
[*Face-to-face condition*]: After you have reviewed the attached materials and completed the evaluation rating form, please place them in the manilla envelope. You will then participate in a role play in which you will meet with Terry and discuss your ratings and overall recommendation.

[*No face-to-face feedback required condition*]: The Center for Student Success will average the ratings of Terry's instructors and mentor (your ratings) this semester, so Terry will not know the rating that you provided. After you have reviewed the attached materials and completed the evaluation form, please place them in the manilla envelope.

Study 2 Performance Evaluation Rating Form

Center For Student Success
Academic Performance Evaluation Rating Form

Overall Evaluation for _____
(Student Name)

1) Performance Ratings for Academic Skills this Semester

a) Assimilation: Recognition and retention of main ideas from class materials

1	2	3	4	5
Poor	Fair	Average	Very Good	Excellent

b) Integration: Understanding the relatedness of ideas from various topics

1	2	3	4	5
Poor	Fair	Average	Very Good	Excellent

c) Critical thinking: Evaluating information with objective facts rather than opinions

1	2	3	4	5
Poor	Fair	Average	Very Good	Excellent

d) Study skills: Understanding and retaining course information with appropriate amount of study

1	2	3	4	5
Poor	Fair	Average	Very Good	Excellent

e) Tenacity: Staying with goals until desired grade is achieved

1	2	3	4	5
Poor	Fair	Average	Very Good	Excellent

2) Overall Performance Rating this Semester

1	2	3	4	5
Poor	Fair	Average	Very Good	Excellent

3) Overall Recommendation for Status in the Program

_____ Definitely continue
_____ Possibly continue
_____ Put on probation
_____ Possibly drop
_____ Definitely drop

Study 2 Questionnaire

Section I: Background Information

Directions: Please answer the following questions about your experience with mentoring other students.

1) Have you ever been a student mentor for underperforming students?

_____ Yes, I have been a formal mentor
_____ No, I have not been a formal mentor

2) If so, how long have you been a mentor?

_____ Number of months (approximate)

3) Have you ever mentored other students on an informal basis?

_____ Yes, I have informally mentored other students
_____ No, I have not informally mentored other students

Section II: Your Feelings about Presenting this Performance Evaluation

[*Face-to-face condition*]
Directions: Please indicate on a scale from 1 (not at all) to 7 (extremely) the extent to which each of the adjectives below characterizes how you feel about presenting this performance evaluation to Terry.

[*No face-to-face feedback required condition*]
Directions: Please indicate on a scale from 1 (not at all) to 7 (extremely) the extent to which each of the adjectives below characterizes how you feel about making this performance evaluation for Terry.

	Not at all	Very little	A little	Somewhat	Moderately	Quite a bit	Extremely
Angry	1	2	3	4	5	6	7
Scornful	1	2	3	4	5	6	7
Contemptuous	1	2	3	4	5	6	7
Resentful	1	2	3	4	5	6	7
Disgusted	1	2	3	4	5	6	7
Frustrated	1	2	3	4	5	6	7
Guilty	1	2	3	4	5	6	7
Ashamed	1	2	3	4	5	6	7
Embarrassed	1	2	3	4	5	6	7
Nervous	1	2	3	4	5	6	7
Afraid	1	2	3	4	5	6	7
Anxious	1	2	3	4	5	6	7
Uneasy	1	2	3	4	5	6	7
Apprehensive	1	2	3	4	5	6	7
Resigned	1	2	3	4	5	6	7
Hopeful	1	2	3	4	5	6	7
Expectant	1	2	3	4	5	6	7
Challenged	1	2	3	4	5	6	7
Confident	1	2	3	4	5	6	7
Proud	1	2	3	4	5	6	7
Surprised	1	2	3	4	5	6	7
Curious	1	2	3	4	5	6	7
Interested	1	2	3	4	5	6	7
Happy	1	2	3	4	5	6	7
Elated	1	2	3	4	5	6	7
Amused	1	2	3	4	5	6	7
Relieved	1	2	3	4	5	6	7
Sad	1	2	3	4	5	6	7
Empathy	1	2	3	4	5	6	7

Section III: Your Expectation about Terry's Reaction

[*Face-to-face feedback condition*]
Directions: Please place a check mark beside the statement that most closely represents your expectation about how Terry will react when you present your evaluation.

[*No face-to-face feedback required condition*]
Directions: Please place a check mark beside the statement that most closely represents your expectation about how Terry will react to the evaluation.

How do you expect Terry will react to your evaluation?

a) Will want the evaluation feedback in order to improve _____
b) Will become defensive after receiving the evaluation feedback _____
c) Neither of the above _____

Section IV: General Beliefs about Performance Feedback

Directions: Please indicate your level of agreement or disagreement with the following statements regarding what you believe, in general, will occur when you give someone feedback about their performance. Use the rating scale from 1 (not at all) to 7 (strongly agree).

	Not at all			Somewhat agree			Strongly agree
1. This person may not like me after I deliver the feedback.	1	2	3	4	5	6	7
2. The person may become confrontational or defensive when I deliver the feedback.	1	2	3	4	5	6	7
3. I may harm the person's self esteem when I deliver the feedback.	1	2	3	4	5	6	7
4. I may harm our relationship when I deliver the feedback.	1	2	3	4	5	6	7
5. I may embarrass the other person when I deliver the feedback.	1	2	3	4	5	6	7
6. I may make the other person angry when I deliver the feedback.	1	2	3	4	5	6	7
7. I may not be able to handle this conversation skillfully.	1	2	3	4	5	6	7
8. The other person may want the feedback in order to improve.	1	2	3	4	5	6	7
9. The other person may accept accountability for his or her performance after receiving the feedback.	1	2	3	4	5	6	7
10. The other person may have information that I am missing about his or her situation.	1	2	3	4	5	6	7
11. The other person may realize that I notice and pay attention to his or her performance.	1	2	3	4	5	6	7
12. The other person may become more motivated after receiving the feedback.	1	2	3	4	5	6	7
13. The other person may be more satisfied after receiving the feedback.	1	2	3	4	5	6	7
14. The trust in our relationship will increase after I give the other person the feedback.	1	2	3	4	5	6	7

Section V: General Feelings

Directions. Please read each item and then indicate to what extent you generally feel this way. Use the following scale to record your answers in the blanks provided.

1	2	3	4	5	6	7
Not at all	Very little	A little	Somewhat	Moderately	Quite a bit	Extremely

_____ interested
_____ distressed
_____ excited
_____ upset
_____ strong
_____ guilty
_____ scared
_____ hostile
_____ enthusiastic
_____ proud

_____ irritable
_____ alert
_____ ashamed
_____ inspired
_____ nervous
_____ determined
_____ attentive
_____ jittery
_____ active
_____ afraid

Section VI. Background Information

Directions: Please answer the following background questions. The information that you provide will be completely confidential.

Your gender	**Male**	**Female**

Your year in school	**Freshman**	**Sophomore**	**Junior**	**Senior**	**Other**

Your field of study	**Business**	**Psychology**	**Other (please specify)**

How many years of work experience do you have?	

If you are a supervisor, how many years of experience as a supervisor do you have?	

Your age	

Your ethnicity	
	African American
	Asian/Pacific Islander
	Caucasian/White
	Hispanic/Latino
	Native American
	Other (please specify) _____

Table 1

Means, Standard Deviations, and Intercorrelations for Study 1 Variables (Unfavorable Cases)

Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1.Anx	2.43	1.42	**.93**																						
2.Fear	1.57	1.06	.71**	--																					
3.Guilt	1.76	1.30	.52**	.50**	--																				
4.Emb	1.52	.95	.60**	.51**	.67**	**.86**																			
5.Empathy	3.43	1.88	.21*	.20*	.17	.34**	--																		
6.Hope	4.09	1.93	.01	.05	.00	.05	.25*	--																	
7.Expect	3.85	1.81	.00	-.07	-.01	.03	.25*	.69**	--																
8.Challenge	3.79	1.84	.23*	.19	.18	.18	.16	.28*	.42**	--															
9.Confid	4.23	1.64	-.37**	-.22*	-.29**	-.26*	.19	.57**	.49**	.14	**.70**														
10.Curious	3.93	2.11	.14	.19	.18	.17	.28*	.33**	.38**	.25*	.20*	--													
11.Interest	4.30	1.81	-.12	-.08	-.07	-.07	.14	.41**	.33**	.13	.48**	.41**	--												
12.Threat	2.19	1.31	.41**	.42**	.13	.24*	-.12	-.29**	-.27*	.16	-.45**	-.22*	-.30**	**.91**											
13.Selfblame	2.30	1.41	.28*	.35**	.30**	.21*	-.16	-.08	-.14	.35*	-.33**	-.12	-.16	.62**	**.92**										
14.Relev. 1	4.02	2.02	.10	.16	.19	.17	.17	.21*	.04	-.07	-.01	.30**	.05	.16	.17	--									
15.Relev. 2	5.60	1.17	.05	.03	-.05	.05	.32**	.27*	.19	-.03	.03	.23*	.20	-.13	-.05	.29**	--								
16.Openness	4.71	1.24	.35**	.20*	.16	.23*	.11	.27*	.22*	.26*	-.03	.22*	.11	.14	.23*	.26*	.28*	**.63**							
17.Optimism	5.38	1.43	-.07	.01	.06	.05	.17	.63**	.54**	.15	.43**	.11	.41**	-.32**	.00	.18	.29*	.25*	**.83**						
18.Conc.oth.	4.52	1.69	.36**	.21*	.28*	.25*	.40**	.08	.12	.36**	-.25*	.05	.00	.16	.29**	-.01	.12	.52**	.05	**.71**					
19.Harm	3.59	1.49	.42**	.29**	.30**	.20	.09	-.32**	-.16	.27*	-.44**	-.04	-.31**	.51**	.45**	-.11	-.22*	.23*	-.42**	.48**	**.79**				
20.Benefit	4.79	1.15	-.11	-.08	-.08	-.13	.07	.64**	.53**	.12	.47**	.17	.44**	-.26*	-.15	.13	.27*	.22*	.77*	-.16	.48**	**.89**			
21.FB envir	5.46	1.05	-.24	-.39*	-.17	-.29*	-.29	.17	.24	-.14	-.02	.01	.20	-.19	-.03	.25	.08	-.18	.51**	-.37*	-.38*	-.48*	**.89**		
22.Political	3.84	1.04	-.02	-.02	.00	-.14	.33*	-.07	-.22	.02	.10	-.25	.03	.18	.17	-.10	-.45**	-.05	-.27	.31*	.27	.26	.35*	**.89**	
23.Distortion	3.60	1.99	.39**	.23*	.19	.24*	.14	-.06	.09	.31**	-.17	-.15	-.21*	.39**	.42**	.14	-.10	.21*	-.09	.34**	.53**	-.26*	-.21	-.09	--

Note. $n = 67$. * $p < .05$. **$p < .01$.

Table 2

Means, Standard Deviations, and Intercorrelations for Study 1 Variables (Favorable Cases)

Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1.Anx	1.96	1.20	**.91**																						
2.Fear	1.39	1.01	.82**	--																					
3.Guilt	1.30	.73	.34**	.35**	--																				
4.Emb	1.30	.76	.52**	.72**	.31**	**.92**																			
5.Empathy	2.66	2.00	.10	.01	.16	.12	---																		
6.Hope	4.61	.185	-.01	.10	-.06	-.13	.18	--																	
7.Expect	4.22	1.82	-.09	-.03	.07	.01	.19	.57**	--																
8.Challenge	3.49	1.99	.17	.21*	.11	.27*	.14	.35**	.46**	--															
9.Confid	4.75	1.75	-.40**	-.27*	-.16	-.21*	.08	.41**	.52**	.27*	**.75**														
10.Curious	3.99	2.13	.13	.16	-.03	.00	.10	.44*	.26*	.29*	.31*	--													
11.Interest	4.39	1.85	-.02	.15	-.04	.06	.00	.48**	.28*	.24*	.45**	.59**	--												
12.Threat	1.71	1.09	.53**	.46**	.00	.32**	-.08	-.03	-.22*	.13	-.34**	.05	.03	**.91**											
13.Selfblame	1.70	.90	.41**	.33**	.17	.39**	.08	-.28*	-.14	.14	-.30*	-.01	-.07	.42**	**.59**										
14.Relev. 1	4.18	1.95	-.06	.06	.08	.19	.24*	.02	.20*	.00	.15	.11	.15	-.05	.05	--									
15.Relev. 2	5.51	1.53	.09	.05	.04	-.02	.16	.27*	.28*	.31**	.22*	.37**	.25*	.05	.10	.41**	--								
16.Openness	4.50	1.44	.05	.09	.09	.18	.24*	-.01	.17	.15	.12	.23*	.18	-.07	.31**	.36**	.38**	**.70**							
17.Optimism	6..04	1.03	-.18	-.14	-.17	-.13	.08	.30**	.28*	.08	.53**	.01	.17	-.28*	-.25*	.03	-.04	-.03	**.77**						
18.Conc.oth.	3.40	1.87	.28*	.11	.37**	.03	.32**	-.14	-.10	.17	-.29	-.15	-.28*	.08	.31**	-.01	.19	.14	-.28*	**.65**					
19.Harm	2.31	1.20	.51**	.34**	.20	.23*	.18	-.19	-.21*	.05	-.44**	.01	-.06	.53**	.38**	-.07	.10	.06	-.50**	-.38**	**.90**				
20.Benefit	5.44	1.13	-.40**	-.21*	-.27*	-.05	.07	.34**	.35**	.15	.67**	.01	.32**	-.27*	-.19	.09	.02	.08	.60**	-.28**	-.47**	**.83**			
21.FB envir	5.71	1.25	.00	.14		.07	.17	.21	.18	.16	.31*	.43**	.31*	-.15	-.14	.12	.14	.07	.27	-.34*	-.04	.46**	**.96**		
22.Political	3.94	1.01	-.02	-.13		-.04	-.10	-.04	-.05	.15	.01	-.09	-.12	.10	.01	.01	.11	-.02	-.07	.04	.11	.02	-.13	**.86**	
23.Distortion	2.33	1.46	.19	.11	.32**	.22*	.33**	-.27*	-.02	.14	-.04	-.23*	-.19	.12	.35**	.01	-.16	.11	-.15	.42**	.37**	-.13	.09	.12	--

Note. $n = 67$. Scale reliabilities are on the diagonal in bold. $*p < .05$. $**p < .01$.

Table 3

Summary Statistics for Confirmatory Factor Analyses for Study 1 and 2

Model	χ^2	df	SRMR	RMSEA	CFI	NNFI	AIC	CAIC
Study 1 independence model	2307.61	91						
Study 1 measurement model	172.36	76	.08	.09	.96	.95	228.15	341.19
Study 1 modified model	154.63	64	.07	.10	.95	.95	209.18	314.42
Study 2 independence model	1111.97	91						
Study 2 measurement model	119.02	76	.06	.07	.96	.95	172.3	282.14
Study 2 modified model	115.70	64	.07	.07	.95	.94	165.78	268.04

Note. All analyses were conducted on an *n* of 134 for study 1 and an *n* of 120 for study 2. RMSEA = root mean square error of approximation; SRMR = standardized root mean square residual; CFI = comparative fit index;
NNFI = non-normed fit index; AIC = Akaike information criterion ; CAIC = Consistent Akaike information criterion.

Table 4

Model 2 Factor Loadings of Beliefs of Harm and Benefit for Study 1 and 2

Latent factor	Indicator	Study 1	Study 2
Harm	1	.87	.77
	2	.85	.78
	3	.78	.80
	4	.88	.81
	5	.61	.66
	6	.92	.74
	7	.50	.33
Benefit	8	.39	.64
	9	.85	.76
	11	.46	.51
	12	.76	.72
	13	.87	.65
	14	.78	.46

Note. Completely standardized solutions for lambda-x are presented.

Table 5
Hierarchical Regression Analysis Predicting Anxiety with Cognitive Appraisals for Unfavorable and Favorable Cases

	Unfavorable Cases (n = 67)						Favorable Cases (n = 67)					
Model and predictor	R	F	R^2	F_{inc}	sr^2	β	R	F	R^2	F_{inc}	sr^2	β
Model 1	.41**	13.00**	.17**	13.00**			.53**	25.34**	.28**	25.34**		
Danger/threat					.03**	.41**					.08**	.53**
Model 2	.57	2.34	.32	1.23			.72**	5.24**	.23**	2.61**		
Danger/threat					.03	.29					.05*	.33*
Relevance (importance)					.00	.00					.00	-.06
Relevance (personal concern)					.00	-.03					.00	.07
Other blame					.01	.21					.01	-.11
Helpless					.00	-.01					.00	.02
Removal of threat					.01	.10					.00	-.05
Success					.01	.16					.11**	-.60**
Concern for another					.02	.20					.00	.02
Optimistic					.00	-.12					.04*	.37*
Openness					.02	.18					.00	.06
Self blame					.01	-.10					.01	.22

Note. *$p < .05$. **$p < .01$.

Table 6

Hierarchical Regression Analysis Predicting Fear with Cognitive Appraisals for Unfavorable and Favorable Cases

	Unfavorable Cases (n = 67)						Favorable Cases (n = 67)					
Model and predictor	R	F	R^2	F_{inc}	sr^2	β	R	F	R^2	F_{inc}	sr^2	β
Model 1	.42**	13.61**	.17**	13.61**			.46*	17.48**	.21**	17.48**		
Danger/threat					.18**	.42**					.21**	.46**
Model 2	.54*	2.02*	.29	.89			.57*	2.43*	.33	.94		
Danger/threat					.04	.31					.04	.29
Relevance (importance)					.00	.04					.00	.07
Relevance (personal concern)					.00	.03					.00	-.03
Other blame					.04	.37					.00	-.04
Helpless					.04	-.39					.00	.04
Removal of threat					.00	.00					.00	.01
Success					.00	.04					.06*	-.46*
Concern for another					.00	.07					.01	-.10
Optimistic					.00	-.06					.03	.29
Openness					.00	.02					.01	.09
Self blame					.00	.04					.01	.15.

Note. *$p < .05$. **$p < .01$.

Table 7

Hierarchical Regression Analysis Predicting Guilt with Cognitive Appraisals for Unfavorable and Favorable Cases

	Unfavorable Cases (n = 67)						Favorable Cases (n = 67)					
Model and predictor	R	F	R^2	F_{inc}	sr^2	β	R	F	R^2	F_{inc}	sr^2	β
Model 1	.30*	6.37*	.09*	6.37*			.17	1.96	.03	1.96		
Self blame					.09*	.30*					.03	.17
Model 2	.47	1.38	.22	.89			.51	1.79	.26	1.75		
Self blame					.03	.23					.01	.10
Relevance (importance)					.05	.25					.01	.11
Relevance (personal concern)					.02	-.18					.00	-.05
Other blame					.00	-.11					.00	-.02
Danger/threat					.01	-.04					.04	-.02
Helpless					.02	-.16					.00	-.38
Removal of threat					.01	.16					.01	-.07
Success					.02	-.31					.05*	-.18*
Concern for another					.03	.22					.02	.30
Optimism					.00	.09					.00	-.24
Openness					.00	-.07					.00	.02

Note. *$p < .05$. **$p < .01$.

Table 8

Hierarchical Regression Analysis Predicting Embarrassment with Cognitive Appraisals for Unfavorable and Favorable Cases

	Unfavorable Cases (n = 67)						Favorable Cases (n = 67)					
Model and predictor	R	F	R^2	F_{inc}	sr^2	β	R	F	R^2	F_{inc}	sr^2	β
Model 1	.21	2.85	.04	2.85			.39**	11.80**	.15**	11.80**		
Self blame					.04	.21					.15**	.39**
Model 2	.41	1.03	.17	.85			.54*	2.07*	.29	1.08		
Self blame					.00	-.09					.06*	.31*
Relevance (importance)					.01	.09					.03	.22
Relevance (personal concern)					.00	-.03					.02	-.17
Other blame					.04	.33					.00	-.08
Danger/threat					.01	.14					.00	.08
Helpless					.01	-.14					.01	.21
Removal of threat					.00	-.03					.00	.01
Success					.00	-.03					.04	-.37
Concern for another					.01	.16					.02	-.16
Optimism					.01	.14					.02	.28
Openness					.00	.03					.01	.13

Note. *$p < .05$. **$p < .01$.

Table 9

Hierarchical Regression Analysis Predicting Empathy with Cognitive Appraisals for Unfavorable and Favorable Cases

	Unfavorable Cases (n = 67)						Favorable Cases (n = 67)					
Model and predictor	R	F	R^2	F_{inc}	sr^2	β	R	F	R^2	F_{inc}	sr^2	β
Model 1	.40**	12.50**	.16**	12.50**			.32**	26.79**	.10**	7.31**		
Concern for another					.16**	.40**					.10**	.32**
Model 2	.63*	3.36*	.40*	2.21*			.52	1.81	.27	1.24		
Concern for another					.11**	.42**					.12**	.44**
Relevance (importance)					.02	.16					.02	.15
Relevance (personal concern)					.01	.11					.00	-.05
Other blame					.01	.13					.00	-.11
Danger/threat					.01	-.16					.01	.16
Helpless					.00	-.01					.03	-.31
Removal of threat					.04	.26					.01	.12
Success					.03	.39					.01	.17
Optimistic					.03	-.33					.00	-.11
Openness					.00	.03					.01	.11
Self blame					.02	-.19					.00	-.03

Note. *$p < .05$. **$p < .01$.

Table 10

Hierarchical Regression Analysis Predicting Hope with Cognitive Appraisals for Unfavorable and Favorable Cases

	Unfavorable Cases (n = 67)						Favorable Cases (n = 67)					
Model and predictor	R	F	R^2	F_{inc}	sr^2	β	R	F	R^2	F_{inc}	sr^2	β
Model 1	.63**	42.13**	.39**	42.13**			.30*	6.18*	.09*	6.18*		
Optimism					.40**	.63**					.09*	.30*
Model 2	.72**	5.35**	.52	.12			.60**	2.85**	.36*	2.38*		
Optimism					.00	.11					.00	-.07
Relevance (importance)					.01	.10					.02	-.18
Relevance (personal concern)					.00	.01					.08**	.35**
Other blame					.00	-.02					.00	-.04
Danger/threat					.01	-.15					.06*	.36*
Helpless					.00	.03					.08**	-.51**
Removal of threat					.00	.01					.01	.12
Success					.06*	.53*					.00	.11
Concern for another					.01	.12					.00	-.01
Openness					.01	.14					.00	-.02
Self blame					.00	.04					.05*	-.29*

Note. *$p < .05$. **$p < .01$.

Table 11

Hierarchical Regression Analysis Predicting Expectant with Cognitive Appraisals for Unfavorable and Favorable Cases

	Unfavorable Cases (n = 67)						Favorable Cases (n = 67)					
Model and predictor	R	F	R^2	F_{inc}	sr^2	β	R	F	R^2	F_{inc}	sr^2	β
Model 1	.54**	26.98**	.29**	26.98**			.28*	5.33*	.08*	5.33*		
Optimism					.29**	.54**					.08*	.28*
Model 2	.68**	4.33**	.46	1.75			.49	1.54	.24	1.15		
Optimism					.01	.16					.00	.07
Relevance (importance)					.01	.01					.00	.03
Relevance (personal concern)					.00	-.11					.03	.19
Other blame					.00	.06					.04	-.27
Danger/threat					.00	-.08					.00	.04
Helpless					.00	-.08					.01	-.16
Removal of threat					.08*	.37*					.00	.07
Success					.01	.24					.00	.02
Concern for another					.00	.08					.00	-.01
Openness					.00	.05					.01	.10
Self blame					.01	-.18					.00	-.03

Note. *$p < .05$. **$p < .01$.

Table 12

Hierarchical Regression Analysis Predicting Confident with Cognitive Appraisals for Unfavorable and Favorable Cases

	Unfavorable Cases (n = 67)						Favorable Cases (n = 67)					
Model and predictor	R	F	R^2	F_{inc}	sr^2	β	R	F	R^2	F_{inc}	sr^2	β
Model 1	.43**	14.49**	.18**	14.49**			.53**	25.82**	.28**	25.83**		
Optimism					.19**	.43**					.28**	.53**
Model 2	.69**	4.43**	.47**	2.98**			.77**	7.25**	.59**	4.15**		
Optimism					.00	.03					.00	.08
Relevance (importance)					.03	-.04					.01	-.01
Relevance (personal concern)					.01	-.13					.04*	.24*
Other blame					.02	.27					.00	-.07
Danger/threat					.04*	-.31*					.01	.15
Helpless					.00	-.04					.00	-.09
Removal of threat					.01	-.11					.00	-.04
Success					.07*	.56*					.12**	.63**
Concern for another					.01	-.14					.00	.06
Openness					.01	.11					.01	.09
Self blame					.01	-.14					.01	-.16

Note. *$p < .05$. **$p < .01$.

Table 13

Hierarchical Regression Analysis Predicting Challenge with Cognitive Appraisals for Unfavorable and Favorable Cases

	Unfavorable Cases (n = 67)						Favorable Cases (n = 67)					
Model and predictor	R	F	R^2	F_{inc}	sr^2	β	R	F	R^2	F_{inc}	sr^2	β
Model 1	.15	1.58	.02	1.58			.08	.44	.01	.44		
Optimism					.02	.15					.01	.08
Model 2	.60**	2.88**	.37**	2.96**			.47	1.41	.22	1.50		
Optimism					.01	.23					.01	.23
Relevance (importance)					.01	-.13					.03	-.21
Relevance (personal concern)					.02	-.17					.07*	.32*
Other blame					.04	.36					.04	-.30
Danger/threat					.01	-.17					.02	.21
Helpless					.00	-.02					.00	.04
Removal of threat					.05*	.27*					.01	.10
Success					.00	-.07					.00	-.10
Concern for another					.01	.14					.01	.15
Openness					.00	.02					.00	.08
Self blame					.01	.17					.01	.10

Note. *$p < .05$. **$p < .01$.

Table 14

Hierarchical Regression Analysis Predicting Curious with Cognitive Appraisals for Unfavorable and Favorable Cases

	Unfavorable Cases (n = 67)						Favorable Cases (n = 67)					
Model and predictor	R	F	R^2	F_{inc}	sr^2	β	R	F	R^2	F_{inc}	sr^2	β
Model 1	.22	3.34	.05	3.34			.23	3.73	.05	.05		
Openness					.05	.22					.05	.23
Model 2	.56*	2.32*	.32*	2.16*			.55*	2.16*	.30	.25		
Openness					.02	.17					.03	.19
Relevance (importance)					.06*	.29*					.02	-.15
Relevance (personal concern)					.00	.00					.12**	.42**
Other blame					.06*	.42*					.04	-.31
Danger/threat					.06*	-.43*					.01	.14
Helpless					.03	-.33					.01	-.15
Removal of threat					.01	.13					.00	.04
Success					.01	.24					.02	-.28
Concern for another					.00	-.03					.04	-.26
Optimism					.05*	-.43*					.00	.02
Self blame					.00	-.04					.00	.03

Note. *$p < .05$. **$p < .01$.

Table 15

Hierarchical Regression Analysis Predicting Interest with Cognitive Appraisals for Unfavorable and Favorable Cases

	Unfavorable Cases (n = 67)						Favorable Cases (n = 67)					
Model and predictor	R	F	R^2	F_{inc}	sr^2	β	R	F	R^2	F_{inc}	sr^2	β
Model 1	.05	.18	.00	.18			.15	1.39	.02	1.39		
Relevance (importance)					.00	.05					.02	.15
Model 2	.53*	1.93*	.28*	2.10*			.52	1.84	.27	1.87		
Relevance (importance)					.00	-.01					.00	-.04
Relevance (personal concern)					.00	.01					.04	.25
Other blame					.02	.35					.00	-.07
Danger/threat					.02	-.22					.05*	.34*
Helpless					.04	-.39					.04	-.34
Removal of threat					.01	.09					.00	.02
Success					.00	-.03					.02	.25
Concern for another					.00	-.07					.03	-.20
Optimistic					.01	.18					.01	-.19
Openness					.00	.03					.01	.15
Self blame					.01	-.11					.00	-.07

Note. *$p < .05$. **$p < .01$.

Table 16

Hierarchical Regression Analysis Predicting Interest with Cognitive Appraisals for Unfavorable and Favorable Cases

	Unfavorable Cases (n = 67)						Favorable Cases (n = 67)					
Model and predictor	R	F	R^2	F_{inc}	sr^2	β	R	F	R^2	F_{inc}	sr^2	β
Model 1	.20	2.74	.04	2.74			.25*	4.15*	.06*	4.15*		
Relevance (personal concern)					.04	.20					.06*	.25*
Model 2	.53	1.93	.28	1.81			.52	1.84	.27	1.58		
Relevance (personal concern)					.00	.01					.04	.25
Relevance (importance)					.00	-.01					.00	-.04
Other blame					.04	.35					.00	-.07
Danger/threat					.02	-.22					.05*	.34*
Helpless					.04	-.39					.04	-.34
Removal of threat					.00	.09					.00	.02
Success					.00	-.03					.02	.25
Concern for another					.01	-.07					.01	-.20
Optimistic					.01	.18					.01	-.19
Openness					.00	.03					.01	.15
Self blame					.01	-.11					.00	-.07

Note. *$p < .05$. **$p < .01$.

Table 18

Correlations between Upward Rating Distortion and Hypothesized Variables for Study 1

Variables	Favorable cases *M*	*SD*	*r*	Unfavorable cases *M*	*SD*	*r*
Emotions						
Negative (H2)						
Anxiety	1.96	1.20	$.19_{a}$	2.43	1.44	$.31^{**}_{b}$
Fear	1.39	1.07	$.11_{a}$	1.57	1.06	$.23^{**}_{a}$
Guilt	1.30	.74	$.32^{*}_{a}$	1.76	1.30	$.19_{b}$
Embarrassment	1.30	.76	$.22^{*}_{a}$	1.52	.95	$.24^{*}_{a}$
Positive (H3)						
Empathy	2.66	2.00	$.33^{*}_{a}$	3.43	1.88	$.14_{b}$
Curiosity	3.99	2.13	$-.23^{*}_{a}$	3.93	2.11	$-.15_{a}$
Interest	4.39	1.85	$-.19^{*}_{a}$	4.30	1.81	$-.21^{*}_{a}$
Hope	4.61	1.85	$-.27^{*}_{a}$	4.09	1.93	$-.06_{a}$
Confidence	4.75	1.75	$-.04_{a}$	4.23	1.64	$-.17_{a}$
Challenge	3.49	1.99	$.14_{a}$	3.79	1.84	$.31^{**}_{a}$
Expectant	4.22	1.82	$-.02_{a}$	3.85	1.81	$.09_{a}$
Cognitive appraisals						
Harm (H4)						
Threat/danger	1.71	1.09	$.12_{a}$	2.19	1.31	$.39^{**}_{b}$
Self-blame	1.95	.92	$.23^{*}_{a}$	2.35	1.32	$.38^{**}_{b}$
Benefit (H5)						
Relevance 1	4.18	1.95	$.01_{a}$	4.02	2.02	$.14_{a}$
Relevance 2	5.51	1.53	$-.16_{a}$	5.60	1.17	$-.10_{a}$
Openness	4.50	1.44	$.11_{a}$	4.71	1.24	$.21^{*}_{a}$
Optimism	6.03	1.03	$-.15_{a}$	5.38	1.43	$-.09_{b}$
Concern for another	3.40	1.87	$.42^{**}_{a}$	4.52	1.69	$.34^{*}_{b}$
Beliefs						
Harm (H8)	2.31	1.20	$.37^{**}_{a}$	3.59	1.49	$.53^{**}_{b}$
Benefit (H9)	5.44	1.13	$-.13_{a}$	4.79	1.15	$-.26^{*}_{b}$
Psychological climate						
Feedback environ (H10)	5.71	1.25	.09	5.46	1.05	-.21
Political (H11)	3.94	1.01	.12	3.84	1.04	.09
Upward rating distortion	2.33_{a}	1.46	---	3.60_{b}	1.99	---

Note. $n = 67$. $^{*}p < .05$. $^{**}p < .01$.
Designations $_{aa}$ reflect nonsignificant differences between correlations for favorable and unfavorable cases. Designations $_{ab}$ reflect statistically significant differences between correlations for favorable and unfavorable cases at the $p < .05$ level.

Table 19

Mediation Results for Study 1

Mediating variable	Direct effect (*Y* regressed on *X* after controlling for *M*)			Bootstrap results for indirect effect			
	B	S.E.	*t*	Sobel value	S..E.	LL 95% CI	UL 95% CI
CA danger/threat(IV) →fear(M) →dist(DV)							
Favorable	.10	.20	.49	.13	.11	-.06	.40
Unfavorable	.16	.24	.67	.07	.11	-.13	.32
CA danger/threat(IV) →anxiety(M) →dist(DV)							
Favorable	.22	.18	1.24	.05	.10	-.09	.30
Unfavorable	.38	.17	2.24	.17	.10	-.02	.38
CA self-blame(IV) →guilt(M) →dist(DV)							
Favorable	.59	.23	2.58*	.04	.05	-.04	.15
Unfavorable	.16	.18	.87	.03	.05	-.08	.13
CA self-blame(IV) →embarrass(M) →dist(DV)							
Favorable	.29	.25	1.17	.09	.08	-.04	.26
Unfavorable	.41	.24	1.72	.04	.05	-.04	.16
CA concern for another(IV) →empathy(M) →dist(DV)							
Favorable	.16	.09	1.87	.06	.04	-.01	.16
Unfavorable	.00	.14	.01	.00	.06	-.13	.13
CA relevance 1(IV) → interest(M)→ dist (DV)							
Favorable	-.16	.10	-1.61	-.02	.02	-.09	.02
Unfavorable	-.24	.13	-1.81	-.01	.04	-.10	.05

Note. $n = 67$. $^{*}p < .05$. $^{**}p < .01$. Unstandardized regression coefficients are reported. Bootstrap sample size = 5000. LL = lower limit; CI = confidence interval; UL = upper limit.

Table 19 *(continued)*

Mediating variable	Direct effect (*Y* regressed on *X* after controlling for *M*)			Bootstrap results for indirect effect			
	B	SE	*t*	Sobel value	SE	LL 95% CI	UL 95% CI
CA relevance 2(IV)→interest(M) →dist(DV)							
Favorable	-.13	.10	-1.30	-.04	.04	-.13	.03
Unfavorable	-.22	.14	-1.59	-.08	.09	-.31	.03
CA openness (IV) →curiosity(M) →dist(DV)							
Favorable	-.19	.08	-2.22	-.06	.04	-.17	.01
Unfavorable	-.19	.11	-1.64	-.07	.06	-.21	.03
CA optimism(IV) →hope(M) →dist(DV)							
Favorable	-.19	.10	-1.94	-.10	.07	-.26	.03
Unfavorable	-.01	.17	-.06	-.01	.14	-.28	.26
CA optimism(IV) →expectant(M) →dist(DV)							
Favorable	.02	.10	.15	.01	.06	-.12	.13
Unfavorable	.22	.16	1.36	.15	.11	-.06	.39
CA optimism(IV) →challenge(M) →dist(DV)							
Favorable	.11	.09	1.22	.02	.03	-.04	.10
Unfavorable	.36	.13	2.77	.07	.06	-.05	.20
CA optimism(IV) →confidence(M) →dist(DV)							
Favorable	.04	.12	-1.30	-.04	.04	-.13	.03
Unfavorable	-.20	.17	-1.22	-.10	.08	-.28	.06

Note. $n = 67$. $*p < .05$. $**p < .01$. Unstandardized regression coefficients are reported. Bootstrap sample size = 5000. LL = lower limit; CI = confidence interval; UL = upper limit.

Table 21

Means, Standard Deviations, and Intercorrelations among Study 2 Variables

Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9
1. Anxiety	2.11	1.28	**.92**								
2. Hope	3.11	1.43	.02	--							
3. Expectant	2.70	1.41	.04	.50**	--						
4. Trait PA	4.20	1.46	-.05	.29**	.19*	**.93**					
5. Trait NA	2.00	.77	.21**	.07	.01	.34**	**.83**				
6. Summated evaluation	2.64	.55	.12	.03	-.15	-.14	-.12	**.79**			
7. Recommendation	5.53	.96	-.08	.29**	.10	.15	-.08	.09	--		
8. General beliefs of harm	4.33	1.13	.28**	-.23**	-.29**	-.25*	.32**	.05	-.20*	**.86**	
9. General beliefs of benefit	5.24	.78	-.20*	.11	.10	.24**	-.15*	-.15	.23**	-.31**	**.78**

Note. $n = 118$. Scale reliabilities are on the diagonal in bold. * Correlation is significant at the .05 level. ** Correlation is significant at the .01 level.

Table 22

Summary of Results for Hypotheses 1 – 7

Hypotheses 1 - 5	Results	*F* (1, 116)
H1: Supported	• Summated ratings higher when made for face-to-face purposes than anonymous • Recommendation higher when made for face-to-face purposes than anonymous	8.69**, η^2 = .07 6.31*, η^2 = .05
H2: Supported	• Anxiety higher when ratings made for face-to-face purposes than anonymous	7.36*, η^2 = .05
H3: Supported	• Anxiety higher for beliefs of harmful outcomes than beliefs of beneficial outcomes	17.06**, η^2 = .13
H4: Supported	• Hope higher for beliefs of beneficial outcomes than beliefs of harmful outcomes • Expectant higher for beliefs of beneficial outcomes than harmful outcomes	27.51**, η^2 = .19 25.42**, η^2 = .18
H5: Supported for summated ratings Not supported for overall recommendation	• Summated ratings higher for beliefs of beneficial outcomes than harmful outcomes • Overall recommendation significantly different for beliefs of harmful outcomes (*M* = 3.29, *SD* = .97) than beneficial outcomes (*M* = 3.76, *SD* = .90), but not in predicted direction	6.83*, η^2 = .06 7.99**, η^2 = .07
Hypotheses 6 & 7	**Results**	***F* (3, 114)**
Hypothesis 6: Not supported	• Interaction not statistically significant for anxiety	1.87, *ns*
Hypothesis 7: Supported for summated ratings Not supported for overall recommendation	• Interaction was statistically significant for summated ratings • Interaction not statistically significant for overall recommendation	6.83*, η^2 = .05 .20, *ns*

Table 23

Means, Standard Deviations, and Main Effects of Feedback Requirement on Three Dependent Variables for Study 2

	Face-to-face feedback		Anonymous feedback		Main effects	
Variable	*M*	*SD*	*M*	*SD*	*F* (1, 116)	η^2
Summated rating	2.79	.53	2.52	.46	8.69**	.07
Recommendation	3.73	.94	3.31	.94	6.31*	.05
Anxiety	2.35	1.33	1.85	1.18	7.36*	.05

Note. $n = 118$. $^*p < .05$. $^{**}p < .01$. $\dot{\eta}^2$ = effect size.

Table 24

Means, Standard Deviations, and Main Effects of Beliefs about Outcomes on Five Dependent Variables for Study 2

	Beliefs of harm		Beliefs of benefit		Main effects	
Variable	*M*	*SD*	*M*	*SD*	*F* (1, 116)	η^2
Anxiety	2.55	1.50	1.66	.79	17.06**	.13
Hope	2.49	1.22	3.73	1.36	27.51**	.19
Expectant	2.10	1.06	3.29	1.46	25.42**	.18
Summated rating	2.78	.49	2.54	.51	6.83**	.06
Recommendation	3.29	.97	3.76	.90	7.99**	.07

Note. $n = 118$. $^*p < .05$. $^{**}p < .01$. η^2 = effect size.

Table 25

Means, Standard Deviations, and Analysis of Variance Summary Table Results for Anxiety and Performance Appraisal Ratings for Study 2

	Face-to-face feedback		Anonymous feedback		ANOVA *F* *F* (3,114)			
Beliefs of Outcomes	*M*	*SD*	*M*	*SD*	Feedback (F)	Beliefs (B)	F x B	η^2 for interaction
Anxiety					5.33*	17.06**	1.87	.02
Benefit	1.76	.80	1.55	.78				
Harm	2.94	1.50	2.15	1.42				
Summated Rating					8.69**	5.71**	6.83**	.05
Benefit	2.56	.56	2.51	.45				
Harm	3.02	.38	2.53	.48				
Recommendation					6.31*	7.99**	.20	.00
Benefit	3.93	.78	3.59	.98				
Harm	3.53	1.04	3.04	.82				

Note. n = 118. *p < .05. **p < .01. η^2 = effect size.