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Incremental Strategy-Oriented Feedback Promotes Positive Leadership Perceptions and Feedback Reactions

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Incremental Strategy-Oriented Feedback Promotes Positive Leadership Perceptions and Feedback Reactions

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BUTLER UNIVERSITY HONORS PROGRAM
Incremental Strategy-Oriented Feedback Promotes Positive Leadership Perceptions and Feedback Reactions

A Thesis
Presented to the Department of Psychology
College of Liberal Arts and Sciences
of
Butler University

In Partial Fulfillment
of the Requirements for Departmental Honors

Lauren Murphy
April 2016
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Incremental Strategy-Oriented Feedback Promotes Positive Leadership Perceptions and Feedback Reactions

In almost every domain in life we encounter situations in which we work with an individual in a leadership position or are expected to demonstrate leadership qualities ourselves. Indeed, almost anyone can be appointed as a “leader”; however, by no means does that mean one is effective. For years researchers have mulled over what factors contribute to the success of those who hold leadership positions. High quality feedback and low perceptions of leader-follower distance emerge as consistent predictors of leadership effectiveness. Both variables affect various elements of the broad term “leadership” and influence the relations one has with followers. According to Riggio and Lee (2007), a crucial component of successful leadership entails delivering constructive feedback. Thus, as a large and essential branch stemming off of effective leadership, feedback will be the primary component I focus on. The type of feedback participants receive should not only affect their perceptions of the feedback itself, but also influence their thoughts of the deliverer’s leadership abilities. This experiment interplays individual’s leader-follower distance with implicit theories to establish their impact on feedback effectiveness and its relatedness to perceived leadership effectiveness.

*Implicit Theories and Their Roles on Performance Feedback*

Carol Dweck’s (1986) seminal work on motivational processes initiated years of research on the implications of implicit theories. She theorized that individuals hold either one of two implicit theories that determine one’s mindset about their ability to change. Entity theorists believe their attributes are fixed, as opposed to incremental theorists who view them as malleable (Dweck, 1995). Researchers have analyzed individual’s implicit theories of intelligence, personality, and emotion through entity and incremental beliefs (Blackwell, Trzesniewski, &
Dweck, 2007; Erdley & Dweck; 1993; Tamir, John, Strivastiva, & Gross, 2007). In each of these cases, the theory one held influenced their motivational patterns and intent for achievement behavior. As entity theorists believe the attribute at hand is fixed, they show little effort in improving performance. Since incremental theorists believe the attribute can change over time, they strive to improve performance (Dweck & Leggett, 1988).

A longitudinal study by Heslin, Latham and VandeWalle (2005) investigated how managers’ natural implicit person theories were related to how they acknowledged change in their employees throughout the performance appraisal process. The results of this study confirmed that the implicit theory held by the feedback giver had an effect on the perceived performance of the employee over time. These findings align with those of Rattan, Good, and Dweck (2012) in which they examine instructors’ implicit theories’ role in the structure of their feedback delivery. In this study, the mindset instructors possessed affected the feedback quality they gave to their students. Instructors with entity mindsets tended to give “comfort-feedback” explaining that poor math skills were due to a lack of math intelligence (e.g., “Not everyone is a math person”). On the other hand, incremental theorists gave “strategy-feedback” explaining that poor math skills were due to a lack of hard work (e.g. “I want you to change your study strategies and consider working with a tutor”). Students who received their instructors’ incremental/strategy feedback felt the instructors were more invested in their future, had more positive perceptions of their instructor, were more motivated and encouraged, and expected to improve their performance in the future. Therefore, the implicit theory the instructors held translated into the feedback given, which further influenced the implicit theory the students held about themselves.
For virtually any task, effective negative feedback should enhance subordinate’s understanding of leaders’ future expectations. Strategy-oriented feedback communicates guidelines and high standards, which then lead to greater effort and engagement (Cohen, Steele, & Ross, 1999). It is assumed that this detailed and personal feedback will allow the receiver to have confidence in their future tasks, a clear understanding of expectations, and motivation to improve.

**Leader-Follower Distance: An Overview**

The second variable manipulated in this study is perceptions of leader-follower distance. Throughout the 1900s the curator of distance in both sociology and psychology was Emory Bogardus through his creation of the Bogardus Social Distance Scale (1925a). He developed this scale after reviewing the work of Simmel (1908) and Park (1924). Simmel was a German sociologist who wrote on his creation of “the stranger.” Simmel (1908) described distance as both spatial and metaphorical, where he uses the stranger to represent individuals who are physically near yet socially far. Park (1924) took a different outlook on this concept, stating that it was not spatial distance that determined social relations, but racial divides (i.e., social distances) that created spatial separation. Soon after Bogardus (1925a) published his social distance scale, which was arguably the first way sociologists and psychologists were able to quantifiably measure participants’ perceptions of distance from a given race or class. A few years later, he applied his distance framework to the domain of leadership (Bogardus, 1927). He elaborated that distance had two dimensions: vertical and horizontal. Vertical distance referred to the differences between two people’s achievements in an organization, whereas horizontal distance referred to differences between task values of two equally ranked employees. The concept of vertical distance continues to be accepted as a dimension of social distance in
leadership contexts today. For instance, it is implemented in Antonakis and Atwater’s (2002) framework, which is used in this thesis.

Their framework describes that in an organizational context, distance consists of three dimensions: physical, social, and number of interactions (Antonakis & Atwater, 2002). Physical distance has been defined as how close or far individuals are located to each other. Less strict interpretations of the term include more subjective experiences, such as perceived physical presence and electronic propinquity (i.e., online “nearness”, opportunity to converse). The next dimension, social distance, concerns perceived differences in both formal and informal status, rank, authority, and achievement (Antonakis & Atwater, 2002). This dimension also encompasses emotional reactions and feelings of closeness (Bogardus, 1947). Finally, interaction frequency involves the amount of contact a follower receives from their leader (Bligh & Riggio, 2013). These three interrelated elements affect the overall distance one perceives. Distance in organizational relationships can create various detrimental circumstances, such as trouble maintaining authentic leadership (i.e., genuine relationship with followers), inability to recognize individual’s unique abilities and needs, and cynical reactions and resistance to direction (Collinson, 2005).

Dimensions of Distance in an Organizational Context

Physical distance is generally referred to as how close or far two individuals are from each other at any given point in time. Although this concept may seem quite apparent to some, there are multiple variations to the construct’s definition (e.g., many interrelate physical and social aspects). However, Antonakis and Atwater’s (2002) framework clearly states that physical and social distance are independent of each other. Therefore, physical distance is viewed in measurable units such as feet or miles. In some scenarios, such as completing autonomous or
complex tasks, physical distance from your supervisor can be beneficial (Keslier & Cummings, 2002). However, it generally is related to negative organizational outcomes. Kerr and Jermier (1978) claim that physical distance can make effective leadership impossible. As companies expand and technology becomes increasingly pertinent in organizational communication, subjective experiences and seemingly online nearness have become important aspects of physical distance. Consequently, I looked at participants’ perceived physical distance from the feedback deliverer in my study.

Social distance can be defined as how one perceives that they differ in informal and formal status or authority (Bogardus, 1927). Socially close leaders make an effort to relate to their followers despite the difference in their ranking. Subordinates describe them as high on energy and interpersonal skills, dynamic, and intelligent. Furthermore, followers express that they wish to identify with a close leader and are more likely to emulate role-modeled leadership behavior (Cole, Bruch, & Shamir, 2009). The number or expectancy of interactions with a leader also plays a crucial role in organizational relations. Expecting interactions creates accountability and awareness on both the leader and follower’s ends (Bligh & Riggio, 2013).

**Distance’s Role in Leader-Follower Relations**

The onset of globalization, hypercompetitive markets, and increase of online technology has created a monumental shift towards having organizations’ work locations spread across the globe (Cascio & Aguinis, 2011). Due to these changes in organizational settings, exploring the relation between distance and leader-follower perceptions is imperative. Followers who are close to their leader and get the opportunity to work with them directly will base their perceptions of them on direct experience. However, followers who are distant from their leader are more likely to base their perceptions off of cognitive interpretation (Bligh & Riggio, 2013). The same applies
for the leader. A close leader will base their perceptions, attitudes, and behaviors toward the follower off of experience, whereas a distant leader bases them off of mental images they have created. Therefore, distance influences the way leaders and followers view and interact with each other.

Distance also plays a large factor in employee engagement (Zhu, Avolio, & Walumbwa, 2009). Employee engagements consists of both energy and involvement components. Someone who is high in energy and involvement will be fully absorbed into their work tasks while working with outstanding physical, cognitive, and emotional energy. This engagement is related to constructs such as job satisfaction, organizational commitment, and turnover intentions. Most importantly, leadership plays a crucial role in developing employee engagement (Schaufeli & Salanova, 2007). Therefore, distant leaders need to be particularly aware of what they can do to encourage engagement. Literature has found four pathways that distant leaders can take to accomplish this. First, leaders should design meaningful work and motivate their subordinates. If employees feel a large social distance and low interaction frequency, they are likely to avoid asking for feedback, role clarification, and resources (Walumbwa, Avolio, & Zhu, 2008). In these circumstances, the leader needs to initiate a better relationship and more interaction opportunities to get the employee engaged. The second and third pathways involve supporting employees and enhancing resources. Showing support involves increasing interactions, such as giving appropriate feedback and allowing employees to participate in decision-making (Shirom, 2006). Finally, distant leaders should facilitate supportive coworker relations. This requires leaders to be involved and build cultures of trust, build group cohesion, and a coworker community (Shirom, 2006).
Intersection of Incremental Feedback and Distance

With an increase in globalization, workers are more likely to come from a variety of backgrounds; accordingly, leaders may have followers with social identities that do not align with their own. This is where it is imperative that leaders refrain from prejudice, which would increase their social distance. Implicit theories have been found to affect the way individuals’ interact with others who have a social identity different than their own (Hong et al., 2004). Specifically, incremental theorists were more likely to modify their social identity to form an “us” category rather than a “them” category. Therefore, incremental mindsets should aid in intergroup interactions. Not only are implicit theory and distance independently important for feedback, they are also crucial together. Leaders who are physically distant from their followers because of globalization may also be socially distant due to different social identities. Keeping an incremental, inclusive mindset can aid in lessening this distance. The proposed research design allowed me to systematically examine how perceived distance and strategy oriented feedback influence one’s thoughts about the effectiveness of the feedback itself, and consequently the effectiveness of the leader.

In accordance with the literature, I hypothesized the effects of distance and feedback on feedback reactions and leadership perceptions.

**Hypothesis 1:** Participants who receive incremental feedback will have higher ratings on feedback reactions than those who receive entity feedback.

**Hypothesis 2:** Participants in the incremental and interaction opportunity condition will have highest feedback reactions.

**Hypothesis 3:** Participants with an interaction opportunity will give higher ratings on leadership perceptions than those in the no interaction opportunity.
**Hypothesis 4:** Participants in the incremental and interaction opportunity will have highest leader perceptions.

**Method**

**Participants**

Participants were undergraduate students from the Indianapolis area (N=110). Approximately 25% of the participants identified as male, and 75% identified as female. The mean age of participants was 19.5 years old. 13.6% of participants had completed at least one business related course, whereas nearly 26% completed at least one social science related course. Participants were recruited through lab members’ networks and Sona Systems, an online website where students with registered accounts can sign up for extra credit for their psychology courses. Students who did not receive extra credit were compensated with one free pizza coupon for Hotbox pizza.

**Procedure**

Upon beginning the study, participants were asked to sign an informed consent form and received a brief overview of the study. The randomly assigned experimental condition determined which script the lab instructor would use to give the study description. All participants were told that our lab was working with a data science team at another local university in Indianapolis, specifically with a graduate student named RJ. However, participants in the interaction conditions were told that RJ was working next door and would discuss the study with them upon its completion. Participants in the no interaction conditions were told that RJ would contact them via email later on concerning questions or comments about the study. After receiving the appropriate study description, they were seated at a computer.
Participants initially completed demographic questions and a feedback orientation scale. Next, they were instructed to let the lab instructor know they were ready to begin their first task. The lab instructor provided them with an assessment center packet containing a human resource management task that required participants to rank ten employees (i.e., 1=least expendable, 10=most expendable) due to their work downsizing. Each packet contained instructions, a company profile, employee profiles, and criteria to make layoff decisions. Before they began the task, participants were told they would have ten minutes to complete it and would receive feedback on their performance. Lab instructors made a point to emphasize that the participants’ feedback was a product of a computer algorithm that was created by and used the language of RJ and his team.

To make the bogus manipulated feedback more believable, lab instructors gave participants an implicit regulatory task after they submitted their answers. Participants were told they would complete this sheet for five minutes as the computer algorithm processed their results. This was an attempt to refrain from giving participants their feedback mere seconds after they submitted their answers, which could raise questions about the feedback’s credibility. Therefore, after completing the implicit regulatory task for five minutes, participants were allowed to view their feedback on the computer. All participants received bogus negative feedback regarding their performance on the assessment center task. Their actual results were not calculated. The type of negative feedback received was dependent on their randomly assigned condition. Participants in the incremental conditions received strategy-oriented feedback, whereas those in the entity conditions received comfort-oriented feedback.

Finally, participants moved on to a handful of dependent measures when they finished reading their negative feedback. These measures were used to see if the distance and feedback
manipulations produced different results for the participants’ perceptions of RJ and the feedback itself. When the final measures were completed, participants were debriefed and received either extra credit or a Hotbox coupon.

**Measures**

**Feedback Orientation Scale.** The measure of feedback orientation employed in this study allows us to see individual differences in overall receptivity to feedback (Linderbaum & Levy, 2010). This 25-item scale scores individual differences on a Likert type scale, ranging from 1= *strongly disagree* to 5= *strongly agree*, α=.79. It consists of four subscales, *utility*, *accountability*, *social awareness*, and *feedback self-efficacy*. It consists of items such as, “To develop my work, I rely on feedback”, “It is my responsibility to apply feedback to improve my performance”, “Feedback helps me manage the impression I make on others”, and “I feel self-assured when dealing with feedback”.

**PANAS.** The measure of positive affect and negative affect employed in this study was a 20-item measure with subscales of 10 items for positive and negative affect. It was used to indicate participants’ feelings at the current moment they completed it (Clark & Tellegen, 1987), α=.83. It was scored on a Likert-type scale, ranging from 1= *very slightly or not at all* to 5= *extremely*. Ten of the items indicate positive affect (e.g., interested) and 10 items indicate negative affect (e.g., ashamed).

**Perceived Fairness of Outcome Feedback.** The measure of perceived fairness of feedback employed in this study was the 4-item measure adapted from Keeping, Makiney, Levy, Moon, & Gillette (1999) scored on 7-point scales ranging from 1= *strongly disagree* to 7= *strongly agree*, α=.91. The scale includes the item, “I agree with the way my performance was rated.”
Perceived Utility of Process Feedback. The measure of perceived utility employed in this study was the 4-item measure adapted Greller (1978), \( \alpha = .96 \). This scale includes the item, “The feedback helped me learn how I can the task better,” scored on 4-point scales ranging from 1= \textit{I do not feel this way at all, not at all} and 4= \textit{I feel exactly this way, completely}.

Outcome Feedback Accuracy. The measure of feedback accuracy used was the 7-item questionnaire developed by Stone, Gueutal, & McIntosh (1984), \( \alpha = .85 \). This measure is scored on a 7-point scale ranging from 1= \textit{strongly disagree} and 7= \textit{strongly agree}. There are two items that are reverse scored in order to control for carry-over and practice effects (e.g., “I do not feel the feedback reflected my actual performance”).

Motivation to Use Feedback. The measure of motivation to use feedback was used in order to effectively measure students’ motivation to use the performance feedback they received (Dorfman, Stephan, & Loveland, 1986), \( \alpha = .83 \). This scale is comprised of two Likert type questions adapted to fit an academic setting and includes the item, “I am willing to change my academic behaviors on the feedback I received”, rated from 1= \textit{strongly disagree} to 7= \textit{strongly agree}.

PEET. The Perceptions of an Environmental Entity Theory developed by Good et al. (in press) was slightly modified in this study to determine participants’ perceptions of their ability to change, specifically their business acumen, \( \alpha = .88 \). It is a 4-item scale, ranging from 1= \textit{strongly disagree} to 8= \textit{strongly agree}. It includes items such as, “I have a certain amount of intelligence concerning business acumen and I can’t really do much to change it”.

Leadership Perceptions. The leader perceptions measure developed by (Lord, Foti, & DeVader (1984) was employed in this study to indicate participants’ perceptions of the individual who gave them feedback (i.e., their rater, RJ), \( \alpha = .89 \). It is a 5-item scale, ranging
from 1= “strongly disagree” to 5= “strongly agree”. It includes items such as, “The rater fit my image of a leader”.

**Results**

Throughout data collection, lab members noted if a participant was unable to run through the experiment as intended or made it clear they did not believe the manipulations in feedback or interaction opportunity. Lab members would clearly mark these participants in our records. In total 11 participants either did not complete the experiment accurately or were identified to have guessed the deception, and thus were excluded from our analysis (resulting \( N = 110 \)).

I hypothesized that participants who received incremental feedback would have higher feedback reactions than those who received entity feedback. Furthermore, I also hypothesized an interaction in which individuals who received incremental feedback and had an interaction opportunity would have the highest overall feedback reactions. After running a MANOVA with all feedback reaction measures, a significant main effect of feedback type supported Hypothesis 1, \( F(4,103)=12.309, p=.00, \eta^2=.323 \). For Perceived Feedback Fairness, \( F(1,106)= 3.93, p=.05, \eta^2= .02 \), receivers of incremental feedback felt it was a fair judgment of their performance. For Motivation to Use Feedback, \( F(1,106)= 12.77, p=.001, \eta^2= .11 \), they were more motivated to use the feedback to improve. For Utility of Process Feedback, \( F(1,106)= 48.77, p=.00, \eta^2= .32 \), participants believed they would use the feedback as a guide to raise performance. Finally, for Perceived Fairness of Outcome Accuracy, \( F(1,106)= 3.76, p=.055, \eta^2= .03 \), it could be argued that they believed the feedback gave an accurate account of their results. The F-values for feedback type and feedback reactions can be found in Table 2. The MANOVA also found participants’ feedback orientation (i.e., overall receptivity to feedback) was a significant covariate for the feedback reaction scales, \( F(4,102)= 3.26, p=.00, \eta^2= .31 \). However, there was
no significant main effect between distance conditions and feedback reactions, $F(4,103), p = .35, \eta^2 = .042$. The F-values for distance and feedback reactions can be found in Table 3. Contrary to Hypothesis 2, there was no significant interaction between the feedback (i.e., incremental or entity) and distance (i.e., interaction or no interaction) manipulations and feedback reaction scales, $F(4,103)= .40, p = .81, \eta^2 = .02$.

I also hypothesized that participants who were told they would have an interaction opportunity would have higher leadership perceptions than those who had no interaction opportunity. Finally, I believed that individuals who would have an interaction opportunity and received incremental feedback would have the highest overall leadership perceptions. Contrary to Hypothesis 3, there was no significant main effect for distance and leadership perceptions, $F(1,106)= .03, p = .86, \eta^2 = .00$. However, there was a strong main effect for feedback on leadership perceptions, $F(1,106)= 12.76, p = .001, \eta^2 = .11$. The F-values for feedback type and distance for leadership perceptions can be found in Table 4. Also opposing Hypothesis 4, there was not a significant interaction between distance and feedback on leadership perceptions, $F(1,106)= .22, p = .64, \eta^2 = .002$.

A correlation matrix including all key variables in the present study can be found in Table 1. One of the scales, Perceptions of an Environmental Entity Theory (PEET), had several significant correlations with other measures used in this study. The PEET measured participants’ perceptions of their ability to change, specifically their business acumen. Those who scored highly indicated that they tend to have an entity implicit person theory (i.e., believe abilities are fixed). These ratings were positively correlated with the Negative Affect subscale (e.g., ashamed, disinterested) of the PANAS measure. The PEET had negative relationships with two of our feedback reaction scales, Motivation to Use Feedback and Perceived Utility of Process.
Feedback. In addition, the PEET was negatively correlated with the Leadership Perception scale, which indicated participants’ perceptions of the leader who gave them feedback. These relationships imply that participants with entity mindsets feel stronger negative affect after receiving critical feedback, are less motivated to use the feedback, found the feedback less helpful, and have poorer perceptions of the leader who gives them feedback.

**Discussion**

In accordance with research on feedback and leader-follower distance, this study sought to expand on previous findings by combining these two variables in an organizational context. My purpose was to discover the influence of feedback content and leader-follower distance on participants’ feedback reactions and leader perceptions. Specifically, this study aimed to see differences in participants’ motivation and perceptions of fairness, outcome accuracy, and utility when their feedback content was influenced by an implicit theory mindset (i.e., incremental or entity). In addition, differences in leadership perceptions were expected depending on the expectation for an interaction or not with the leader (i.e., feedback giver). All in all, this study sought to test for an interaction between feedback and distance, such that individuals who received incremental feedback and expected an interaction with a leader figure would have the highest overall feedback reactions and leadership perceptions.

My results suggest that while giving negative feedback, it is important to have an incremental mindset, which will influence feedback content. In the incremental feedback conditions participants encountered strategy-oriented negative feedback, whereas the entity feedback conditions gave comfort-oriented feedback. These results align with the findings of Rattan, Good, & Dweck (2012) where grade school students were more motivated to improve
their math performance and had higher perceptions of their teachers when they received strategy-oriented negative feedback. Even when applied to adults in a non-academic context, feedback that includes high standards along with a plan of action is received far better than feedback that simply comforts an individual for their incapability (Mulder & Ellinger, 2013). As a leader, maintaining an incremental mindset about followers is imperative as one constructs and delivers critical feedback concerning performance.

The small to moderate effect sizes of the manipulations on the feedback reaction scales suggests several implications. First, individuals are more likely to view feedback as fair and fitting to their performance when it is strategy-oriented. They are also more motivated to use the feedback to improve their performance and continue reaching their goal. In addition, they believe that the feedback accurately reflected their results. Finally, individuals will use the feedback as a guide to make changes in accordance to their performance if it contains strategies and high expectations to do so.

Unlike our feedback main effect, there was no significant effect for distance on feedback reactions and there was no significant interaction between feedback and distance. This suggests that individuals’ perceptions of fairness, motivation, outcome accuracy, and utility are not affected by whether or not they believed they would get an interaction opportunity. In this study, distance was designed to include the three aspects of distance: physical, social, and interaction (Antonakis & Atwater, 2002). The “interaction opportunity” condition narrated RJ (i.e., the leader and feedback deliverer) as next door, a grad student, and available to interact face-to-face with participants. However, the “no interaction” condition narrated RJ as somewhere around campus, a grad student, and perhaps able to interact at a later time via email. It was assumed that participants would either be primed into perceiving RJ as either a proximal or distant leader.
According to Kalkstein, Kleiman, Waks, Liberman, & Trope (2016), individuals tend to learn better from and favor proximal leaders when working on low-construal tasks (i.e., concrete, local, contextualized). This study included a human resource task that was quite contextualized and needed a concrete list of answers. Thus, it was expected that participants would have higher feedback reactions and leadership perceptions when told he was next door and they would interact.

However, distance also had no significant main effect on leadership perceptions. While designing the study, aspects of transformational leadership were implemented into the feedback and distance manipulations. Transformational leadership includes giving followers compelling visions, motivation, encouragement, strategies to improve, and one-on-one time (Bass & Avolio, 1993). According to Howell and Hall-Merenda’s (1999) findings, transformational leaders produce greater performance in their followers when there is less physical distance between them, as they attend to specific developmental needs. My results were not able to provide further evidence of their findings. However, this may be explained by another one of their hypotheses concerning leader-follower exchange and follower performance. Howell and Hall-Merenda (1999) found that physical distance had no effect on positive follower performance due to leader-member exchange. Therefore, the instructions and feedback given to participants may have affected their perceptions more than the ability to later interact with RJ. This may be one explanation for the nonsignificant effects and interaction, but other limitations will be discussed later on.

The strong feedback main effect of feedback on leadership perceptions indicates that participants who received incremental feedback not only reacted more positively to the feedback itself, but also to the leader. They found RJ to have exhibited leadership, engaged in leader
behavior, a typical leader, fitting their image of a leader, and would have chosen him to be their formal leader at work. These results provide further evidence that feedback is a crucial antecedent to leadership effectiveness and perceptions (Riggio & Lee, 2007). Therefore, leaders should invest time into the content of their feedback to encourage positive perceptions and relationships with their subordinates.

Limitations and Implications for Future Research

Although the present study did find significant relations to provide additional insight into feedback, distance, and leadership, it still contains limitations. Perhaps the most apparent limitation was the construction of the distance manipulation. With the resources and context given for this study, our lab attempted to create the manipulation to be as believable and practical as possible. However, several aspects within the structure of the distance manipulation could have gone awry leading to insignificant effects. First, the entire narrative of RJ and his location is all held within the initial script that lab members recite to participants as they enter the lab. There were 15 different lab members running this study, which gives room to a variety of interactions and script delivery. These lab members also used personal networks as a recruiting tool and were able to run a participant whenever was most convenient for both individuals. Thus, personal relationships with participants may have decreased the level of seriousness and believability in certain run-throughs. Another recruiting method used was Butler Sona Systems, an online account where psychology students can receive extra credit in their courses for participation in studies. This attracted many upper level psychology students who are keen of deception to our sample pool. Although suspicious data was dropped, there may have been some participants overlooked. All in all, if one line of the script was forgotten or delivered unprofessionally, the distance manipulation was likely affected.
Feedback delivery may have been another component of the study’s structure that caused the lack of a significant effect. Participants were presented feedback on a computer screen, not aloud by an actual human being. Although told that the feedback was generated through a computer algorithm made by RJ, it may not have been taken as seriously or personally. Also due to the feedback being delivered on a computer, feedback was skipped over or arrived at too quickly. The bogus negative feedback was presented to participants virtually on the same laptop they used to rate all measures and enter answers for the human resource management task. After entering their answers for the task they were to be evaluated on, they were instructed to notify the lab instructor to complete another task while their results and feedback were being processed. This procedure was used in an attempt to make the feedback seem more believable and particular to their performance, not previously generated. However, some participants clicked on a continue button before notifying the lab instructor they completed the task, thus reviewing the feedback immediately with no time in between. Other participants clicked continue multiple times and skipped over the feedback altogether. Lab members made note of participants who did this and data was dropped; however, there is the possibility some cases were overlooked.

Finally, many of the theories and research reviewed while constructing this study took place in either an academic or organizational setting. Due to inabilities to work onsite with a specific organization or academic course, the present study was performed in a controlled experimental setting. Unable to hire an actor, I employed deception to create a fictional leader who would give feedback and perhaps interact. Many took RJ seriously and were shocked to realize he was not real after being debriefed; however, others may have not taken the intensity of RJ’s role into consideration when completing measures and reading feedback. A manipulation check could have assessed this in a more systematic fashion.
With these limitations in mind, future research could make specific changes to this study’s procedures to ensure stronger manipulation and fewer technical errors. I believe recruiting from a participant pool of individuals who work within an organizational context will eliminate suspicions of deception found in our psychology student participants. The present study, the feedback given to participants concerned their performance on a human resource management task. If participants received feedback on a task that was relevant to their particular job description, perhaps they would elicit stronger feedback reactions. In an organizational context, I may be able to strengthen the distance manipulation, as well. In order for the interaction opportunity condition to yield significantly higher feedback reactions and leadership perceptions, participants needed to fully believe the fictional leader was working next door and about to discuss their results face-to-face. Participants may find it more plausible that an individual in upper level management within their organization was going to evaluate their performance on a job task. Depending on the randomly assigned condition, participants would be told if they were available later to discuss their feedback in person or not. In addition, the number of participants in the interaction (n=40) and no interaction (n=70) conditions were extremely uneven. Although participants were randomly assigned to the conditions, this difference could have contributed to the insignificant effects of the manipulation. In sum, these changes in the procedure of this present study could strengthen the distance manipulation.

As mentioned earlier, transformational leadership involves providing followers with effective and strategic feedback. It also plays a role in employee’s engagement within an organization. Employee engagement is strongly associated with job satisfaction, organizational commitment, and turnover intentions, and leadership is one of the most crucial factors influencing it (Schaufeli & Salanova, 2007). Since the attitudes and actions involved in
employee engagement are imperative for an organization’s success, I would hope to further investigate the role of distance in encouraging employee engagement. Avolio, Walumbwa, and Weber (2009) found that distant leaders need to take the initiative to provide resources (e.g., role clarification, rewards) through different pathways than face-to-face leaders. I would like to explore those pathways and see how distant leaders can remain effective. In particular, it could be helpful to research feedback delivery effectiveness of virtual leaders as it is not very present in current feedback literature.

Conclusion

The present study expands on feedback affected by implicit theories and distance’s role in the way individuals react to feedback and perceive the feedback deliverer. The results indicate that having an incremental mindset to construct strategy-oriented feedback is beneficial, as it leads to positive feedback reactions and leadership perceptions. With this knowledge, leaders can make an effort to display encouragement, high standards, and pathways to improvement within the feedback they deliver to their followers.
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Table 1

Descriptive Statistics and Correlations for Key Variables

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<th>M</th>
<th>SD</th>
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<tr>
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<td>.41</td>
<td>.26**</td>
<td>.22*</td>
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<td>4. Accountability</td>
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<td>.32**</td>
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<td>.46**</td>
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<td>7. PEET</td>
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<td>8. Perceived Fairness</td>
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<tr>
<td>9. Motivation Use Feedback</td>
<td>4.94</td>
<td>1.38</td>
<td>-.26**</td>
<td>.50**</td>
<td>(.83)</td>
<td></td>
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<td></td>
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<tr>
<td>10. Outcome Accuracy</td>
<td>3.93</td>
<td>1.84</td>
<td>.08</td>
<td>.59**</td>
<td>.37**</td>
<td>(.85)</td>
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<td>11. Perceived Utility</td>
<td>3.76</td>
<td>1.84</td>
<td>.24*</td>
<td>.43**</td>
<td>.57**</td>
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Note. N=110. Numbers in parentheses are Cronbach’s alphas. *p<.05. **p<.01.
Table 2

MANOVA: The Effects of Feedback Type on Feedback Reactions

<table>
<thead>
<tr>
<th>DV</th>
<th>Condition</th>
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<th>F</th>
<th>$\eta^2$</th>
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</thead>
<tbody>
<tr>
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<td>Incremental Feedback</td>
<td>4.31</td>
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<td>.03</td>
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<td></td>
<td>Entity Feedback</td>
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<td>Incremental Feedback</td>
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<td>12.66**</td>
<td>.11</td>
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<tr>
<td></td>
<td>Entity Feedback</td>
<td>4.49</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outcome Feedback Accuracy</td>
<td>Incremental Feedback</td>
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<td>3.76</td>
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<td>Entity Feedback</td>
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<td>Perceived Utility</td>
<td>Incremental Feedback</td>
<td>4.79</td>
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*Note. N=110 where Incremental (n= 55) and Entity (n=55). *p<.05. **p<.01.*
Table 3

**MANOVA: The Effects of Distance on Feedback Variables**

<table>
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<th>η²</th>
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<tr>
<td>Perceived Accuracy</td>
<td>Interaction</td>
<td>4.93</td>
<td>.198</td>
<td>.00</td>
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<tr>
<td></td>
<td>No Interaction</td>
<td>4.94</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motivation to use Feedback</td>
<td>Interaction</td>
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<td>.139</td>
<td>.00</td>
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<tr>
<td></td>
<td>No Interaction</td>
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<td></td>
</tr>
<tr>
<td>Perceived Utility</td>
<td>Interaction</td>
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*Note. N=110, where Interaction (n= 40) and No Interaction (n= 70). *p<.05. **p<.01.*
Table 4

*Effects of Feedback Type and Distance on Leadership Perception*

<table>
<thead>
<tr>
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<th>$\eta^2$</th>
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</thead>
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<tr>
<td>Leadership Perception</td>
<td>Interaction</td>
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<td>.032</td>
<td>.000</td>
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<td></td>
<td>No Interaction</td>
<td>3.16</td>
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</tbody>
</table>

*Note. N=110 where Incremental (n= 55) and Entity (n= 55) and where Interaction (n=40) and No Interaction (n=70) . *$p<.05$. **$p<.01$.***
Appendix A

**Lab Instructor Script:**

*Interaction opportunity:*

Hello,

- Please read through and fill out the statement of informed consent.
- You will start this study by completing a few questionnaires on the computer.
- There is a grad student named RJ here from IUPUI’s data science program. He is piloting a task that could potentially be used for hiring managerial positions. As a Butler research lab, we have partnered with him to see whether his findings are generalizable across public and private campuses. He is currently next door working.
- I will give you the assessment included in his research and you will be given 10 minutes to complete it. Please write down questions or comments you have during the task, as well as what goes through your mind and how you are feeling.
- When time is up, I’ll notify you and we can submit your answers.
- It is important for you to know that your performance on the task will be evaluated. Specifically, the program implements a scoring algorithm developed by the research team of which RJ is a part.
- Once you receive your performance feedback, you will complete a handful of questionnaires on the computer.
- Afterward, RJ will come over and explain details about the task to you, or answer any questions or concerns you have. He’d also like to see the thoughts or feelings you wrote about while completing the task.
- If you have any questions, please let me know.

*No interaction opportunity:*

Hello,

- Please read through and fill out the statement of informed consent.
- You will start this study by completing a few questionnaires on the computer.
- There is a grad student named RJ around our campus from IUPUI’s data science program. He is piloting a task that could potentially be used for hiring managerial positions. As a Butler research lab, we have partnered with him to see whether his findings are generalizable across public and private campuses.
- I will give you the assessment included in his research and you will be given 10 minutes to complete it. Please write down questions or comments you have during the task, as well as what goes through your mind and how you are feeling.
- When time is up, I’ll notify you and we can submit your answers.
- It is important for you to know that your performance on the task will be evaluated. Specifically, the program implements a scoring algorithm developed by the research team of which RJ is a part.
- Once you receive your performance feedback, you will complete a handful of questionnaires on the computer.
- Afterward, RJ will contact you and explain details about the task to you, or answer any questions or concerns you have. He’d also like to see the thoughts or feelings you wrote about while completing the task.
- If you have any questions throughout this study, please let me know.
Appendix B

Demographics

Age: ______________________
Gender: _____________________
Major: ______________________
Email: ______________________

Have you ever taken a psychology course? If so, please list below.
________________________________________________________________________
________________________________________________________________________

Have you ever taken a management course? If so, please list below.
________________________________________________________________________
________________________________________________________________________

Appendix C

Feedback Orientation Scale

When completing this measure, please conceptualize feedback as any information based on your performance that can be used to regulate or improve your future performance—not just grade-based information.

Please indicate your agreement with each of the following items on a scale where 1 = strongly disagree and 5 = strongly agree.

1. Feedback contributes to my success at school.
2. To develop my skills at school, I rely on feedback.
3. Feedback is critical for improving performance.
4. Feedback from instructors can help me advance in school.
5. I find that feedback is critical for reaching my goals.
7. It is my responsibility to apply feedback to improve my performance.
8. I hold myself accountable to respond to feedback appropriately.
9. I don’t feel a sense of closure until I respond to feedback.
10. If my instructor gives me feedback, it is my responsibility to respond to it.
11. I feel obligated to make changes based on feedback.
12. I do not feel accountable for responding to the feedback I receive.
13. I try to be aware of what other people think of me.
14. Using feedback, I am more aware of what people think of me.
15. Feedback helps me manage the impression I make on others.
16. Feedback lets me know how I am perceived by others.
17. I rely on feedback to help me make a good impression.
18. The perceptions others have of me are not important.
19. I feel self-assured when dealing with feedback.
20. Compared to others, I am more competent at handling feedback.
21. I believe that I have the ability to deal with feedback effectively.
22. I feel confident when responding to both positive and negative feedback.
23. I know that I can handle the feedback that I receive.
24. I often feel insecure when receiving feedback.

Appendix D

Assessment Center Task

Step 1. You are one of the executives in charge of talent management in an organization forced to undergo downsizing. Your specific position is to act as Human Resource Manager with hiring and talent management authority for the departments within the organization. After reviewing some basic information about your organization, read the employee profiles that follow and rank-order the 10 employees from “1” for least expendable to “10” for most expendable.

Step 2. Make sure to look over the rankings you have selected to make sure the organization will still run effectively after your decision has been implemented. Make sure each of the different departments are fairly represented in your decision.

Follow these instructions for reaching the best decision:
1. Try to reach the best possible decision, while fairly representing each department
2. Avoid changing your mind simply to please each department. The organization’s best interests should be kept in mind.
3. Make sure to consider your decision from every angle, as if you were working with other team members. View those possible differences of opinion as a help rather than a hindrance in decision making.

COMPANY PROFILE

Delta, started in 1998, is a small, family-owned firm in the microcomputer business. The company grew rapidly because of its microcomputer boards, disk drives, optical disks, tape backup drives, and innovative approaches to solving computer hardware problems. Both managers and workers have put in long hours, often sacrificing their personal time to get the company off the ground.

Unfortunately, a significant downturn in the economy has caused a reduction in sales, and it is increasingly apparent that some adjustments will have to be made if the
company is to survive. Delta needs to be prepared for a ten percent reduction in work force.

The president has asked you to examine the personal information of the 10 employees in the company who are most expendable. Your committee will have to make a series of recommendations for a downsizing (layoff) of employees, all of whom are married, of the same age (28), and all with no previous experience before joining Delta. You are meeting to rank-order the employees from “1” for least likely to “10” for most likely to be laid off. There are at least 11 employees in each of the 5 departments. The employees other than those on the list you have been provided with have been with the company at least eight years, and it is not feasible to lay them off at this time.

Among the criteria you may want to consider in making your rankings are:
1. Education
2. Performance
3. Seniority
4. Technical ability
5. Attitude
6. Leadership
7. Effectiveness
8. Efficiency
9. Job function
10. Social ability

EMPLOYEE PROFILES

Finance

Gwen—seniority three and one-half years; four-year college education; has performed about average on annual appraisal (75 percent); average technical abilities and leadership potential; a steady, grinding worker; works long hours, has been working on employee benefit plan for two years; is a nonsmoker and nondrinker; has frequently complained about working with cigarette smokers.

Hal—seniority five and one-half years; four-year college education; has been rated average and above in annual appraisals (80 percent); high technical abilities; average leadership; always in on Saturday mornings; frequently works through lunch hour; has been working on committee to computerize payroll for past 18 months; is well liked and gets along with fellow workers; is a very neat and stylish dresser

Research and Development

Carole—Ph.D. in engineering; seniority two and one-half years; has been above-average research engineer in performance appraisal (90 percent); high technical and
leadership abilities; works unusual hours (sometimes work late at night, then doesn’t come in until noon the next day); developed patent on a new solid-state circuit device last year; seldom attends social events; is said to be friendly but often disagrees and conflicts with fellow workers

Dave—M.S. in engineering; seniority three and one-half years; has been average to above average on performance appraisals (75 percent); average technical abilities; average leadership; works steady 8AM to 5PM; is working on several R&D projects but none yet completed; always ready for a coffee break or joke-telling session; is well liked by coworkers; never complains about bad assignments

Marketing

Tony—M.B.A.; seniority two years; has been rated as performing better than 90 percent on performance appraisals; high technical abilities; above average leadership; works erratic hours (often comes into office at 9:30 and frequently plays golf on Wednesday afternoons); sold the highest number of product units in his product line; seldom socializes with fellow workers; often criticized because his desk is messy and disorganized, piled with correspondence and unanswered memos

Ken—Four-year college degree; seniority 18 months; has been rated an above-average to outstanding performer (80 percent); high technical abilities; average leadership; has been criticized for not making all of his sales calls, but has a good sales record; developed advertising campaign for a new product line; although a good bowler refuses to bowl on company team; has been rumored to drink quite heavily on occasion

Human Resource Management

Eduardo—Four-year college degree; seniority 18 months; has been rated above average as performer (80 percent); average technical abilities; high leadership; is frequently away from his desk and often misses meetings; has designed and implemented a new management development program; is well liked although frequently has differences of opinion with line managers; often takes long coffee breaks and lunch hours

Frank—Two-year college degree; seniority four years; has been rated average to above average as performer (70 percent); low technical abilities; above average leadership; works long hours; regularly attends all meetings; has been redesigning performance appraisal systems for past two years; is involved in many company activities; known as a friendly, easygoing man

Manufacturing

Irv—Four-year college degree; seniority 15 months; rated an outstanding performer (90 percent); high technical abilities; moderate leadership; has been criticized for not attending committee meetings; designed and implemented the computerized
production control process; does not socialize with fellow employees; known as sloppy dresser (often wearing white or red socks with a suit, for instance)

Jackie—high school; seniority six years; rated an average performer (75 percent); average technical abilities; low leadership; always attends meetings; works steady 8AM to 5PM hours and Saturday mornings; has chaired committee to improve plant safety for past two years; participates in all social events; plays on company bowling and softball teams; known for a very neat, organized office.

Appendix E

Implicit Regulatory Focus Task

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<td>ACRID</td>
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<td>G O</td>
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<td>GONE</td>
<td>GOON, GOAT</td>
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<tr>
<td>D T</td>
<td>---</td>
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<td>DATE, DOTE, DATA</td>
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Appendix F

Manipulated Bogus Feedback

Incremental

A team of Human Resource professionals and Organizational Behavior experts has developed an ideal standard by which to evaluate these employees. The sequence in
which you recommend firing these employees only has 20% overlap with this ideal standard. In your assessment, you failed to utilize several important skills that would have enabled to come to a better conclusion regarding the organizational setup of Delta Company. By organizing the company is such a fashion, you have ensured its continued economic struggle.

However, by improving on several strategies, I know that you will be able to better analyze the situation and make the better-educated decisions that I’m sure you’re capable of. Make sure to pay special attention to the skills and accomplishments of the particular employee as past performance is a strong indicator of future performance. Additionally, it is important to have a strong mixture of subordinates and leaders in those that you keep. It is important not to weight age and/or gender-related information in your decisions. Even though your performance was poor, I am confident in your ability to improve in completing related assignments or making difficult decisions like this in the future.

**Entity**

A team of Human Resource professionals and Organizational Behavior experts has developed an ideal standard by which to evaluate these employees. The sequence in which you recommend firing these employees only has 20% overlap with this ideal standard. In your assessment, you failed to utilize several important skills that would have enabled to come to a better conclusion regarding the organizational setup of Delta Company. By organizing the company is such a fashion, you have ensured its continued economic struggle.

However, I am sure this assessment does not reflect your personal educational performances. Unfortunately, not everyone is fit to make the kind of decisions that are needed in human resource management. It requires specific decision-making skills that not everyone possesses. I am assuming it is unlikely that you will be completing tasks like this again, so I would not worry. I will take a look at making the next task not as challenging as this one, so individuals like you feel more comfortable completing it. I want you to know that your score is okay, and this is merely an assessment that doesn’t reflect your overall abilities. Even though your performance was poor, I am confident in your ability to improve in completing related assignments or making difficult decisions like this in the future.

**Appendix G**

**PANAS**
This scale consists of a number of words and phrases that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you have felt this current moment. Use the following scale to record your answers: 1 2 3 4 5 very slightly a little moderately quite a bit extremely or not at all

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Appendix H

Perceived Fairness of Outcome Feedback (adapted from Keeping, Makiney, Levy, Moon, & Gillette, 1999)

1 = strongly disagree
2 = disagree
3 = slightly disagree
4 = neutral
5 = slightly agree
6 = agree
7 = strongly agree
1. The feedback was fair.
2. I agree with my feedback.
3. I agree with the way my performance was rated.
4. The performance feedback fairly represented my performance.

Appendix I

Motivation to Use Feedback (adapted from Dorfman, Stephan, & Loveland, 1986)

1 = strongly disagree
2 = disagree
3 = slightly disagree
4 = neutral
5 = slightly agree
6 = agree
7 = strongly agree

1. I am willing to change my work behaviors based on the feedback I received.
2. I want to improve my performance based on the feedback provided.

Appendix J

Outcome Feedback Accuracy (Stone, Gueutal, & McIntosh, 1984)

1 = strongly disagree
2 = disagree
3 = slightly disagree
4 = neutral
5 = slightly agree
6 = agree
7 = strongly agree

1. The feedback was an accurate evaluation of my performance.
2. I do not feel the feedback reflected my actual performance.
3. I believe the feedback was correct.
4. The feedback was consistent with how I felt I performed.
5. The feedback was not a true assessment of my work.

Appendix K

Perceived Utility of Process Feedback (adapted from Greller, 1978)

1 = I do not feel this way at all, not at all.
2 = I feel somewhat like this, a little.
3 = I feel generally like this, pretty much.
4 = I feel exactly this way, completely.

1. The feedback helped me learn how I can the task better.
2. I learned a lot from the feedback.
3. The feedback helped me understand my mistakes.
4. I have a clearer idea of what is expected from me because of the feedback.

Appendix L

**PEET scale (modified)**

In the context of my feedback, it seems that my evaluator believes that

1. I have a certain amount of intelligence concerning business acumen and I can’t really do much to change it.
2. My business acumen is something about myself that I can’t change very much.
3. To be honest, I can’t really change my acumen in business related tasks.
4. I can learn new things, but I can’t really change my business acumen.

Scale of 1-8, 1= Strongly Disagree; 8 = Strongly Agree

*Acumen refers to the ability to make good judgments and decisions in a particular domain.

Appendix M

**LEADERSHIP PERCEPTIONS**

**INSTRUCTIONS:** Use the scale below to indicate your response to following questions regarding your perceptions of the individual who gave you feedback for this task.

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<td>Disagree</td>
<td>Neither Agree</td>
<td>Agree</td>
<td>Strongly Agree</td>
</tr>
</tbody>
</table>

1. The rater exhibited leadership.
2. I would choose the rater to be my formal leader at work.
3. The rater engaged in leader behavior.
4. The rater was a very typical leader.
5. The rater fit my image of a leader.