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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Abstract

In our lab experiment, participants who received negative strategy-oriented feedback associated with an incremental theory had more positive perceptions of a feedback deliverer and the feedback itself compared to recipients of comfort-oriented feedback associated with an entity theory.

In almost every domain of life, we encounter the need to collaborate within a leader-follower dyad. Although many individuals are appointed as "leaders," a title alone cannot manifest effective guidance and direction. For years, researchers have mulled over what factors contribute to the success of those who hold leadership positions (Bass, 1985; Fiedler & Chemers, 1967; Northouse, 2012). High quality feedback and low perceptions of leader-follower distance emerge as predictors of leadership effectiveness (Mulder & Ellinger, 2013; Antonakis & Atwater, 2002). Both variables affect various elements of the broad term "leadership" and influence the relations one has with followers (Kark & Shamir, 2013). 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 is the primary component I focus on. The type of feedback participants receive not only affects their perceptions of the feedback itself, but also influences 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 in Performance Feedback

Carol Dweck's (1986) seminal work on motivational processes initiated years of research on the implications of implicit theories. She theorizes 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 individuals' 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 holds influences 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 are related to how they acknowledge change in their employees throughout the performance appraisal process. The results of this study confirm that the implicit theory held by the feedback giver has 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 examined instructors' implicit theories' role in the structure of their feedback delivery to undergraduate students. Although their research occurred in an academic context opposed to an organizational context, the findings align with the current study despite the setting. In this study, the instructors' mindsets affected the feedback quality given to their students. Instructors with entity mindsets gave "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 an instructor holds translates into the feedback given, which further influences the implicit theory the students hold about themselves.

For virtually any task, effective negative feedback should enhance subordinates' understanding of leaders' future expectations. Strategy-oriented feedback communicates guidelines and high standards, which then leads to greater effort and engagement (Cohen, Steele, & Ross, 1999). In accordance with the literature, the current study assumes 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 the perception of leader-follower distance. Throughout the twentieth century, 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), who conceptualized distance as both a spatial and social construct. Bogardus' (1925a) social distance scale 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. It is implemented in Antonakis and Atwater's (2002) framework, which states there are three dimensions of distance in an organizational context: physical, social, and number of interactions. Physical distance is 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 leader-initiated contact with follower (Bligh & Riggio, 2013). These three interrelated elements affect the overall distance one perceives. Distance in organizational relationships can create various detrimental circumstances

for leaders, such as trouble maintaining authentic leadership (i.e., genuine relationship with followers), inability to recognize followers' 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 relate 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 look 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-model 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 relationship between distance and leader-follower perceptions is imperative. Followers who have the opportunity to work closely with their leader will base their perceptions of them on direct experience. However, followers who are distant from their leader are more likely to base their perceptions on reputation and ungrounded judgement (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.

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 affect the way individuals' interact with others who have a social identity different than their own (Hong et al., 2004). Specifically, incremental theorists are 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. The literature allows us to see that these constructs are independently imperative for leadership effectiveness (Atonakis & Atwater, 2002; Rattan, Good, & Dweck, 2012). However, previous studies do not examine the effects of their interaction as in the current study. The current research design systematically examines 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 hypothesize the effects of distance and feedback on feedback reactions and leadership perceptions.

HYPOTHESIS 1

Participants who receive negative incremental feedback will have more positive ratings on feedback reactions and leadership perceptions than those who receive negative entity feedback.

HYPOTHESIS 2

Participants with an interaction opportunity will give more positive ratings on feedback reactions and leadership perceptions than those in the no interaction opportunity.

HYPOTHESIS 3

Participants in the incremental and interaction opportunity will have the most positive feedback reactions and 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 (see **Appendix A**). 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.

The differences within the conditions were created to prime participants to perceive RJ as either a proximal or distant leader. The script for the no interaction condition was designed to make RJ appear physically distant from the lab, socially occupied at the moment, and unable to complete a face-to-face interaction with the participant. The interaction condition was designed to have the participant believe RJ was physically nearby, socially available, and eagerly waiting to interact. The contrasts in scripts delivered to participants was to create varying perceptions of distance towards their "leader". 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 (see **Appendix B**). 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 is a 20-item measure with subscales of 10 items for positive and negative affect. It is used to indicate participants' feelings at the current moment they completed it (Clark & Tellegen, 1987), α = .83, It is 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 is 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 is the 4-item measure adapted Greller (1978), α = .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 = I do not feel this way at all, not at all and 4 = I feel exactly this way, completely.

Outcome Feedback Accuracy. The measure of feedback accuracy used is the 7-item questionnaire developed by Stone, Gueutal, & McIntosh (1984), α = .85. This measure is scored on a 7-point scale ranging from 1 = strongly disagree and 7 = strongly agree. There are two items that are reverse scored in

order to control for carryover 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 is 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 and includes the item, "I want to improve performance based on the feedback my supervisor provides.", rated from 1 = strongly disagree to 7 = strongly agree.

PEET. The Perceptions of an Environmental Entity Theory developed by Good et al. (in press) is 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 = strongly disagree to 8 = 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) is 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 $N = 110$).

Descriptive statistics for key variables can be found in **Table 1**. A correlation matrix including key variables in the present study can be found in **Table 2**. One of the scales, Perceptions of an Environmental Entity Theory (PEET), has several significant correlations with other measures used in this study. The PEET measures participants' perceptions of their ability to change, specifically their business acumen. High scores indicate a more entity focused orientation whereas low scores indicate a more incremental mindset.

Condition	Measure	M	SD	*N*

Incremental/Interaction	Perceived fairness	4.63	1.20	17
	Motivation to use feedback	5.56	0.86	17
	Outcome accuracy	4.02	0.41	17
	Perceived utility	5.09	1.55	17
	Leadership perceptions	3.52	0.54	17
Incremental/No Interaction	Perceived fairness	4.16	1.26	38
	Motivation to use feedback	5.30	1.19	38
	Outcome accuracy	3.98	0.53	38
	Perceived utility	4.85	1.55	38
	Leadership perceptions	3.41	0.63	38
Entity/Interaction	Perceived fairness	4.15	1.80	23
	Motivation to use feedback	4.46	1.28	23
	Outcome accuracy	3.92	0.80	23
	Perceived utility	2.64	1.65	23
	Leadership perceptions	2.85	0.93	23
Entity/No Interaction	Perceived fairness	3.54	1.31	32
	Motivation to use feedback	4.52	1.66	32
	Outcome accuracy	3.84	0.86	32
	Perceived utility	2.80	1.43	32
	Leadership perceptions	2.90	1.04	32

Note. $N = 110$ where incremental ($n = 55$) and Entity ($n = 55$). Interaction ($n = 40$) and No Interaction ($n = 70$).

* $p < .05$

** $p < .01$

Table 1. Descriptive statistics for key variables.

	M	SD	1	2	3	4	5	6	7	8
Positive Affect	2.52	0.80	(.89)							

	Mean	SD							
Negative Affect	1.75	0.66	-.05	(.88)					
PEET	3.44	1.59	-.21	.25*	(.88)				
Perceived Fairness	4.05	1.24	.22*	-.19	-.18	(.91)			
Motivation to Use Feedback	4.94	1.38	.20*	.05	-.26	.5**	(.83)		
Outcome Accuracy	3.93	1.84	.10	.04	.08	.6**	.4**	(.85)	
Perceived Utility	3.76	1.84	.33*	-.17	-.23*	.4**	.6**	.3**	(.96)
Leadership Perceptions	3.16	0.86	.31*	-.10	-.22*	.5**	.5**	.4**	.7**	(.89)

Note. N = 110. Numbers in parentheses are Cronbach's alphas.

* $p < .01$

** $p < .001$

Table 2. Descriptive statistics for key variables.

These ratings are positively correlated with the Negative Affect subscale (e.g., ashamed, disinterested) of the PANAS measure, $r(110) = .25$, $p < .01$. The PEET also has negative relationships with two of our feedback reaction scales, Motivation to Use Feedback, $r(110) = -.26$, $p < .01$, and Perceived Utility of Process Feedback, $r(110) = -.43$, $p < .001$. In addition, the PEET is negatively correlated with the Leadership Perception scale, $r(110) = -.22$, $p < . 01$, which indicates 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.

I hypothesized that participants who received incremental feedback would have more positive feedback reactions and leader perceptions compared to those who received entity feedback. After running a MANOVA with all feedback reaction measures, a significant main effect of feedback type supports Hypothesis 1, Wilks' Lambda = .677, $F(4,103) = 12.309$, $p = .00$, $\eta2 =.323$ (see **Table 3**). Those who receive incremental feedback opposed to entity feedback

		F	p	η^2
Omnibus	Feedback	12.31**	0.00**	0.32

	Distance	1.12	0.35	0.04
	Feedback*Distance	0.40	0.81	0.02
Univariate	Perceived Fairness	3.93*	0.04	0.04
	Motivation to Use Feedback	12.77**	0.00	0.11
	Outcome Accuracy	0.74	0.39	0.01
	Perceived Utility	48.77**	0.00	0.32

Note. N = 110 where Incremental (n = 55) and Entity (n = 55).

* p < .05

** p < .01

Table 3. Omnibus and univariate results of feedback type on feedback reactions.

	F	p	η^2
Feedback	12.77**	0.00**	0.11
Distance	0.03	0.86	0.00
Feedback*Distance	0.22	0.64	0.00

Note. N = 110 where Incremental (n = 55) and Entity (n = 55).

* p < .05

** p < .01

Table 4. MANOVA: Effects of feedback and distance on leadership perceptions.

perceive it to be a fairer judgement of their performance, $F(1,106) = 3.93$, $p = .05$, $\eta2 = .02$, are more motivated to improve performance, $F(1,106) = 12.77$, $p = .001$, $\eta2 = .11$, and are more likely to use it as a guide to improve performance, $F(1,106) = 48.77$, $p = .00$, $\eta2 = .32$ (see **Table 3**).

The results also find participants' feedback orientation (i.e., overall receptivity to feedback) to be a significant covariate for the feedback reaction scales, $F(4,102) = 3.26$, $p = .00$, $\eta2 = .31$. Participants who receive incremental

feedback also have more positive leadership perceptions than those who receive entity feedback, Wilks' Lambda = .675, $F(1,106) = 12.76$, $p = .001$, $\eta2 = .107$ (see **Table 4**).

I also hypothesized that participants who were told they would have an interaction opportunity would have more positive feedback reactions and leadership perceptions than those who had no interaction opportunity. The distance manipulation does not yield results to support Hypothesis 2 for either feedback reactions, $F(4,103) = 1.12$, $p = .35$, $\eta2 = .04$ (see **Table 3**), or leader perceptions, $F(1,106) = .03$, $p = .857$, $\eta2 = .00$ (see **Table 4**).

Finally, it was hypothesized that individuals who would have an interaction opportunity and received incremental feedback would have the highest overall leadership perceptions. Contrary to Hypothesis 3, there is no significant interaction for feedback reactions $F(4,103)= .40$, $p = .81$, $\eta2 = .02$ (see **Table 3**), or leadership perceptions, $F(1,106) = .22$, $p = .64$, $\eta2 = .00$ (see **Table 4**).

Discussion

In accordance with research on feedback and leader-follower distance, this study sought to expand on previous findings by combining feedback and distance variables in an organizational context. My purpose was to discover the influence of feedback driven by implicit person theory 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.

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 is no significant effect for distance on feedback reactions and there is 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 is designed to include the three aspects of distance: physical, social, and interaction opportunity (Antonakis & Atwater, 2002). The "interaction opportunity" condition narrates 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 narrates RJ as somewhere around campus, a grad student, and perhaps able to interact at a later time via email. It is assumed that participants are primed into perceiving RJ as either a proximal or distant leader. According to Kalkstein, Kleiman, Wakslak, 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 includes a human resource task that is quite contextualized and needs 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 has no significant main effect on leadership perceptions. 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 react 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 FURTHER RESEARCH

Although the present study does find significant relations to provide additional insight into feedback, distance, and leadership, it still contains limitations. Perhaps the most apparent limitation is 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.

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.

It would be beneficial to delve deeper into studying implicit mindsets and their affect on feedback content. 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). Rattan, Good, & Dweck (2012) suggest that an incremental mindset is crucial in developing feedback of this nature. Thus a further implication may be that while giving negative feedback, it is important to have an incremental mindset, which will influence feedback content. As a leader, maintaining an incremental mindset about followers should be imperative as one constructs and delivers critical feedback concerning performance.

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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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.

Appendix B

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. 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.

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 C

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 employees 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 similar to this in the future.