



Leaders' Reactions to 360° Feedback: Examining Individual Attributes and Format Effects

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Purpose: Numerous studies have explored the role of feedback format, and individual differences in influencing reactions to and behaviour change following the receipt of 360° feedback. Recent research has considered the role that implicit theories of ability play in reactions to negative feedback. The current study replicates and extends this work, investigating the interaction between implicit theories of ability, feedback format (i.e., the inclusion of normative or normative and narrative feedback), and feedback valence as they relate to feedback reactions.

Study design/methodology/approach: We conducted a quasi-experimental study of leaders in a large healthcare organization in the United States.

Findings: We found that the interaction between implicit theories of ability and feedback format is dependent on feedback valence. Though implicit theories of ability moderate the relationship format and reactions for negative feedback, the effect did not hold when individuals received positive feedback. In addition, we did not find a statistically significant impact of normative and narrative (versus normative) feedback on reactions.

Originality/value: This study extends our understanding of individual differences and feedback format in predicting reactions to feedback, providing important implications for both theory and practice.

Introduction

Since its initial surge in popularity in the 1990s, 360° feedback has become one of the most popular tools organizations use to promote employee development (Bracken et al., 2016). In response to the popularity of 360° feedback in practice, organizational researchers have examined a number of components influencing the effectiveness of 360° feedback in promoting behavioural change (Bracken & Rose, 2011). Although the primary focus of this research stream has been to understand feedback reactions and behavioural change based on feedback characteristics that are within the organization's control (e.g., organizational or feedback characteristics), researchers have identified a number of rater individual difference characteristics relevant to rater reactions to, acceptance of, and behavioural change as a result of 360° feedback (Corwin et al., 2019; Smither et al., 2005). However, while initial evidence provides some support for "person by format" effects in 360° feedback, research in this area has been somewhat limited, focusing primarily on the interaction between individual

differences and feedback valence without considering other features of feedback format (Corwin et al., 2019).

For example, research exploring the inclusion of normative data (i.e., data comparing recipients of 360° feedback to their peers) has yielded mixed results (Atwater & Brett, 2006). Recent work indicates that these mixed results may be explained by exploring individuals' implicit theories of ability (i.e., individuals' beliefs about the malleability of abilities; Dweck, 2000), finding that when receiving negative feedback, individuals who believe that their abilities are malleable tend to prefer absolute feedback, whereas individuals who believe that their abilities are fixed tend to prefer normative feedback (Zingoni & Byron, 2017). While these findings provide important insights regarding the interaction between implicit theories of ability and feedback format, they raise new questions surrounding the boundary conditions for these interaction effects as well as the specific features of feedback format that influence participant reactions.

The purpose of this paper is to explore these questions by examining the interplay between individuals' implicit theories of ability, feedback format, and feedback valence, in order to tease apart other conflicting research findings regarding feedback format and to provide more nuanced practical implications for organizations. This study contributes to research and practice in two important ways. First, we explore whether the interaction between implicit theory of ability and providing normative feedback holds when feedback is positive. While initial research provides evidence for the interaction between implicit theory of ability and presence of normative feedback when feedback is negative (Zingoni & Byron, 2017), it is not clear whether these effects hold when feedback is positive.

Second, in addition to considering feedback valence, our study also considers the impact of two popular approaches to 360° feedback on recipient reactions. Specifically, we compare the effects of *normative* feedback, which provides participants with information about how their ratings compare to their peers, as well as *narrative* feedback, which provides participants with a more detailed explanation about their numeric scores. While previous research has explored the effect of these two approaches to formatting 360° feedback (Atwater & Brett, 2006), questions remain regarding the unique effects of text-based feedback on employee reactions to feedback, as well as whether providing additional developmental information can help explain the interaction between implicit theory of ability and feedback format.

Our study design elicits both unique theoretical insights and important practical implications for organizations implementing 360° feedback systems. First, to explore the interaction between implicit theory of ability, feedback valence, and feedback format, we assessed the reactions of 219 leaders in the healthcare sector enrolled in a 360° feedback program. Given that our quasi-experimental approach was conducted in a field setting, we provide a more rigorous test of effects than those in previous studies of feedback using student samples or laboratory settings. Our field setting also allows us to test the role of feedback valence in reactions to feedback in an ecologically valid setting, where participants are receiving real feedback. Understanding more about reactions to different forms of feedback serves a practical purpose for organizations to better tailor their feedback delivery in a way that is most beneficial for the recipient.

Second, by comparing a control condition to experimental normative and normative/narrative combination conditions, we are able to explore the unique effects of including text-based feedback separate from normative feedback. While the normative and text-based conditions partially replicate a similar study conducted by Atwater and Brett (2006), their study combined the normative (versus absolute) condition with a text-based (versus no text) conditions, preventing clear conclusions about the relative impact of these format features. Finally, we expand upon the findings provided by Zingoni and Byron (2017) by exploring feedback valence as an additional moderator impacting the interaction between implicit theory of ability and

feedback format on reactions to feedback. Though our study provides unique insights above and beyond both the Atwater and Brett (2006) and Zingoni and Byron (2017) studies, we also partially replicate their findings in an organizational context. Given the scarcity of replication attempts in social science research, our efforts provide a more rigorous test of theory and elicit more concrete evidence for practitioners (Klein et al., 2014; Winerman, 2013).

Reactions to Feedback

Our study draws from feedback intervention theory (Kluger & DeNisi, 1996) and social-cognitive theories of motivation (Dweck, 2000; Dweck & Leggett, 1988) to unpack hypotheses about the interaction between individual differences and feedback format on feedback reactions. Feedback intervention theory focuses on how various features of feedback interventions, as well as feedback valence, impact feedback reactions (DeNisi & Kluger, 2000; Kluger & DeNisi, 1996). Social-cognitive theories of motivation provide insight into how self-theories, such as implicit theory of ability, impact individuals' reactions to feedback and provide initial insights into the interaction between implicit theories of ability and feedback format (Dweck, 2000).

This paper focuses on perceptions of value and positive affective reactions as outcomes of interest. Although previous research on reactions to feedback has explored numerous outcomes of feedback interventions, the majority of research focuses on either affective reactions or perceptions of utility, finding that positive reactions and perceptions that the feedback is valuable for development lead to improved employee performance and related outcomes. For example, previous research indicates that positive affective reactions can promote self-efficacy, feedback acceptance, satisfaction with feedback, and subsequent performance (Bell & Arthur, 2008; Fedor et al., 2001; Smither et al., 2005). Similarly, perceptions that feedback is valuable or useful are related to employees' subsequent performance improvement and engagement in development following feedback (Brett & Atwater, 2001; Zingoni & Byron, 2017).

Features of Feedback and Subsequent Reactions

Feedback intervention theory and related empirical findings provide robust evidence that feedback format and valence predict individuals' reactions to feedback. Research generally suggests that individuals who receive positive feedback tend to report more positive cognitive and affective reactions to feedback than their counterparts who receive negative feedback (Atwater & Brett, 2001; Fecteau et al., 1998). However, reactions to positive and negative feedback vary widely and, as a result, researchers have extensively investigated feedback format and individual differences (e.g., personality, culture, goal orientation) that may explain this variability (Atwater et al., 2007; Sully De Luque & Sommer, 2000; Taylor et al., 1984).

Research on feedback format often focuses on how providing comparisons in feedback—to one's past performance or their peers' performance—versus providing absolute feedback impacts individuals' reactions. This study focuses on outcomes for individuals who receive absolute feedback to outcomes for individuals who receive normative feedback that compares an employee's average 360° feedback ratings from supervisors, peers, subordinates, and other colleagues to the average 360° feedback ratings of peers who have received 360° feedback.

While feedback intervention theory has suggested that employees should prefer absolute feedback to normative feedback (DeNisi & Kluger, 2000; Kluger & DeNisi, 1996), empirical findings have been mixed and provided more nuance (Atwater & Brett, 2006; Moore & Klein, 2008; Schultz, 1999). For example, absolute feedback tends to have stronger (rather than consistently positive) effects on individuals' satisfaction with performance: when feedback is positive, individuals who receive absolute feedback feel more positively than individuals who receive normative feedback, and when feedback is negative, individuals who receive absolute

feedback feel more negatively than individuals who receive normative feedback (Moore & Klein, 2008).

Implicit Theories of Ability and Feedback Format

In addition to manipulating feedback format, researchers have explored the role of a number of individual differences in relation to feedback reactions, including goal orientation and core self-evaluations, though support for the impact of individual differences has been mixed (Brett & Atwater, 2001; Bono & Colbert, 2005). Recent research has explored the role of implicit theories of ability—or the extent to which an individual sees their abilities as malleable—as an individual difference characteristic that can explain mixed findings regarding the impact of normative feedback on employees' reactions to feedback (Zingoni & Byron, 2017). Implicit theories of ability exist on a continuum—on one end are *entity theorists*, who believe that their abilities are static and cannot be changed, and on the other are *incremental theorists*, who believe that their abilities are malleable and can be improved through effort (Dweck, 2000; Levy et al., 1998).

Prior to Zingoni and Byron's (2017) work, implicit theories of ability had been studied in relation to feedback reactions primarily in educational contexts. Broadly speaking, this research indicates that incremental theorists tend to respond better than entity theorists in the face of real or perceived failure (Cury et al., 2008; Snyder et al., 2014), including in response to negative feedback. For example, children's implicit theories of intelligence mediate the relationship between feedback and subsequent reading motivation, indicating that children's implicit theories of ability can help explain how reactions to feedback influence behavioural change (Hellmich & Hoya, 2017). Similarly, adolescents' implicit theories of ability differentially predict the effect of feedback on self-appraisals. Entity theorists' performance self-appraisals are more strongly impacted by normative teacher evaluations, whereas incremental theorists' self-appraisals are more strongly impacted by temporal evaluations (Butler, 2000). These findings also suggest that implicit theories of ability interact with feedback format to predict outcomes.

Indeed, Zingoni and Byron's (2017) research examining negative feedback reactions found this to be the case. Specifically, they found that incremental theorists generally tend to value negative feedback more than entity theorists because they are less likely to see the information as threatening to the self, and that entity theorists tend to value normative (versus negative) negative feedback, whereas incremental theorists tend to value absolute (versus normative) negative feedback (Zingoni & Byron, 2017). The authors argue that this interaction can be explained by how entity and incremental theorists attend to information. Specifically, they argue that incremental theorists tend to find absolute feedback more valuable because it is more self-focused and therefore provides more information about improvement, whereas entity theorists find normative feedback more valuable because they tend to attend to and prefer information that is other-focused (Butler, 2000; Zingoni & Byron, 2017).

Despite evidence indicating that implicit theories of ability can help explain mixed findings regarding feedback format and negative feedback, this research does not consider whether these effects hold when feedback is positive. This is in line with the literature on implicit theories of ability more broadly, which tends to focus on entity versus incremental theorists' responses to negative feedback or failure (Dweck, 2000). While understanding reactions to negative feedback in organizations is certainly important, employees are likely to receive both positive and negative feedback at work, and organizations designing systems for feedback must understand implications for both positive and negative feedback. Generally, research on feedback valence indicates that individuals who receive negative feedback tend to react with more negative emotions and to perceive the feedback as less valuable and accurate (Brett &

Atwater, 2001; Feys et al., 2011). For example, receiving negative 360° feedback, as opposed to no feedback, has been shown to lead to lowered state self-esteem, which can then have a negative effect on more distal outcomes, such as increasing interpersonal deviance and decreasing helping behaviours (Peng & Zeng, 2016).

Theoretical perspectives that consider implicit theories and positive feedback suggest that entity theorists will respond to positive feedback differently than negative feedback. Specifically, when entity theorists receive positive feedback on an attribute, they are likely to believe that they do possess the attribute in question, and thus the positive feedback verifies and stabilizes their judgment (Harackiewicz & Elliot, 1995). Drawing from this perspective, we argue that after receiving positive feedback, entity theorists will not be interested in further understanding the feedback they receive. Indeed, entity theorists are more likely to anchor to the first feedback made about their performance, even when provided with subsequent information that contradicted the initial feedback (Butler, 2000). In contrast, when entity theorists receive negative feedback, we argue that they are more likely to seek additional information to help understand the discrepancy between their self-image and the feedback. In line with Zingoni and Byron's (2017) findings, entity theorists who receive negative feedback should value feedback that provides normative data over feedback that provides absolute information in isolation because entity theorists tend to attend to other-focused information (Butler, 2000).

For incremental theorists, however, we anticipate the opposite effect. That is, when incremental theorists receive negative feedback and thus require additional information to understand their feedback rating, we expect that they will value feedback formats that provide information they find more useful. Again, Zingoni and Byron's (2017) findings suggest that incremental theorists will prefer absolute feedback when seeking additional information on how to improve their performance, as incremental theorists prefer self-focused feedback and are more likely to find comparative information distracting.

Thus, we anticipate a three-way interaction between implicit theory of ability, feedback format, and feedback valence, on perceived feedback value, such that entity theorists will value an absolute feedback format when feedback is positive and a normative feedback format when feedback is negative, whereas incremental theorists will prefer an absolute feedback format regardless of feedback valence. Our study design compares two normative feedback conditions—one that provides normative information alone, and one that provides normative information with additional narrative feedback. We hypothesize these effects in both normative feedback conditions.

Hypothesis 1: The relationship between implicit theory of ability and feedback value is moderated by both feedback quality and feedback valence such that: (a) incremental theorists perceive positive absolute feedback as less valuable than positive *normative* feedback, but perceive negative absolute feedback as more valuable than negative *normative* feedback, whereas (b) entity theorists perceive positive absolute feedback as more valuable than positive *normative* feedback, but perceive negative absolute feedback as less valuable than negative *normative* feedback.

Hypothesis 2: The relationship between implicit theory of ability and feedback value is moderated by both feedback quality and feedback valence such that: (a) incremental theorists perceive positive absolute feedback as less valuable than positive *narrative* feedback, but perceive negative absolute feedback as more valuable than negative *narrative* feedback, whereas (b) entity theorists perceive positive absolute feedback as more valuable than positive *narrative* feedback, but perceive negative absolute feedback as less valuable than negative *narrative* feedback.

We expect the same pattern of outcomes in relation to positive affective reactions, and thus also hypothesize:

Hypothesis 3: The relationship between implicit theory of ability and positive reactions to feedback is moderated by both feedback quality and feedback valence such that: (a) incremental theorists react to positive absolute feedback less positively than positive normative feedback, but react to negative absolute feedback more positively than negative normative feedback, whereas (b) entity theorists react to positive absolute feedback more positively than positive normative feedback, but react to negative absolute feedback more negatively than negative normative feedback.

Hypothesis 4: The relationship between implicit theory of ability and positive reactions to feedback is moderated by both feedback quality and feedback valence such that: (a) incremental theorists react to positive absolute feedback less positively than positive narrative feedback, but react to negative absolute feedback more positively than negative narrative feedback, whereas (b) entity theorists react to positive absolute feedback more positively than positive narrative feedback, but react to negative absolute feedback more negatively than negative narrative feedback.

Normative vs. Narrative Feedback

Researchers studying implicit theories of ability and normative (versus absolute) feedback have argued that reactions to negative normative versus absolute feedback can be explained by incremental versus entity theorists' preferences for additional information (Zingoni & Byron, 2017). More broadly, research demonstrates that negative reactions to feedback are even more pronounced when individuals are given more information about the specific behaviours that led to the feedback (Feys et al., 2011). Essentially, large quantities of procedural information may legitimize the feedback that the individual received. Therefore, receiving negative feedback combined with more information is unfavourable, potentially because it is more difficult for the recipient to make excuses for poor performance evaluation with external factors.

Atwater and Brett (2006) touched on these variables, exploring the effects of both normative feedback and textual feedback on feedback reactions. However, their experiment provided employees with normative, numerical feedback and absolute, textual feedback. In contrast, our study compares a condition that provides normative, numerical feedback and a condition that provides both normative, numerical feedback and additional textual feedback to employees.

Given that the three-way interaction between normative (vs. absolute) feedback, implicit theory of ability, and feedback valence is thought to be driven by the type and amount of information provided to employees, providing additional information to employees to reiterate their performance should exacerbate these effects. Following this logic, we expect that incremental theorists will prefer feedback that combines normative and narrative components to feedback that provides only normative information, regardless of feedback valence. In comparison, entity theorists should prefer feedback that combines normative and narrative components when feedback is negative, as the narrative feedback is provided by others and will thus exacerbate the other focus of the feedback. However, when feedback is positive, entity theorists will prefer normative feedback that provides less information and allows them to maintain their positive assessment.

Hypothesis 5: Increased information will strengthen the interaction between implicit theory of ability and feedback valence on perceived value, such that: (a) incremental theorists perceive positive normative feedback as less valuable than positive narrative feedback, but perceive negative normative feedback as more valuable than negative narrative feedback, whereas (b) entity theorists perceive positive normative feedback as

more valuable than positive narrative feedback, but perceive negative normative feedback as less valuable than negative narrative feedback.

Hypothesis 6: Increased information will strengthen the interaction between implicit theory of ability and feedback valence on positive reactions to feedback, such that: (a) incremental theorists react to positive normative feedback less positively than positive narrative feedback, but react to negative normative feedback more positively than negative narrative feedback, whereas (b) entity theorists react to positive normative feedback more positively than positive narrative feedback, but react to negative normative feedback more negatively than negative narrative feedback.

Method

Sample

Participants were 219 leaders (Directors, Executive Directors, Department Administrators, Managers, Assistant Professors, and Professors) at a large healthcare institution in the South. Of the total participants, 137 (62.6%) were female and 81 (36.9%) were male with one individual (0.5%) preferring not to report their gender. Half (111; 50.7%) were Caucasian, 46 (21.0%) Asian, 41 (18.7 %) African American, 17 (7.8%) Hispanic, and one (0.4%) Native American with three individuals (1.4%) preferring not to report their ethnicity. Average participant age was 47.19 years (SD = 7.75 years) and average tenure at the institution was 10.57 years (SD = 6.58 years). Participants represented many areas across the institution, e.g., Radiation Oncology, Facilities Management, Innovation, and Marketing. There were 162 experimental participants (100 received normative feedback and 62 received a combination of normative and narrative feedback) and 57 control participants. On average, experimental participants were slightly older ($M = 48.14$ years, $SD = 7.92$ years) than control participants ($M = 44.50$ years, $SD = 6.61$ years; $t = 3.31$, $p = .002$). There were no other statistically or practically significant differences amongst demographic characteristics between control and experimental participant groups.

Procedure

Participants were enrolled in one of five voluntary leadership development programs; each program consisted of multiple in-person sessions. As part of the pre-work for each program, participants nominated 360° feedback raters (1 boss, 4-6 direct reports, 4-6 peers within their department, and 4-6 others, e.g., colleagues, indirect reports within the institution) and completed the self-report version of the 360° survey.

An initial session of each program consisted of a lecture and discussion of the institutional competency model, format of the feedback report, common derailers of leadership success within the institution, reactions to feedback, and trends in feedback across program participants. Participants then received a report containing their 360° feedback. In the absolute feedback condition, reports included mean scores (0.00 to 3.00) by rater type for each item and overall competency scores (mean across all groups), presented through graphs, tables, and descriptive text. In the normative feedback conditions, participants received an identical report except that it additionally included normative feedback indicating percentile scores (e.g., 70th) for each competency, compared to all leaders across the institution who had previously completed 360° feedback. Participants receiving a normative/narrative report additionally received narrative feedback in the form of verbatim comments from raters presented in a randomized order. Raters completed three open-ended questions asking them to describe the strengths of the leader, areas for improvement, and additional comments. In all conditions, reports were created purely for developmental purposes and were only seen by the recipients themselves.

Reactions surveys for the groups were administered online immediately after participants finished reviewing their feedback reports. All participants in two of the development programs received absolute reports and the other three programs received normative or normative/narrative reports. There were no other differences in the feedback process or reports.

Measures

Feedback Valence

The 360° feedback survey was internally developed by the organization and included 48 multiple choice items measuring 14 institutional competencies. An example item measuring the competency Innovative Thinking is “Creatively integrates different ideas and perspectives.” Responses for each item range from 0 (*Not at all*) to 3 (*Very great extent*). Negative feedback valence was calculated as the number of competency scores that fell below fiftieth percentile of scores.

Feedback Value

To measure perceptions of feedback value, we used a scale from Ashford (1986) with six items ($\alpha = .88$). An example item was “I found this feedback on my performance useful.” Responses ranged from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*).

Positive Reactions to Feedback

We measured positive feedback reactions with 7 items ($\alpha = .85$) from Brett and Atwater (2001). This measure asks participants to rate the extent to which they feel 7 reactions (e.g., “Inspired”) on a Likert scale ranging from 0 (*not at all*) to 4 (*very much*).

Implicit Theory of Ability

Implicit theory of ability was measured with 8 items ($\alpha = .92$) from Dweck (2000). Lower scores were associated with entity theorists, and higher scores with incremental theorists. A sample item included, “Someone’s intelligence is something about them that they can’t change very much.”

Results

Descriptive statistics correlations between all variables are presented in Table 1. We conducted hierarchical regression analyses to test the hypothesized three-way interaction between implicit theory of ability, feedback valence, and feedback type on perceptions of value and positive affective reactions to feedback. For all analyses, we centred continuous predictors around their respective means and calculated interaction terms based on these mean-centred scores (Aiken & West, 1991).

Table 1: Means, standard deviations, and correlations with confidence intervals

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1. Normative	0.43	0.50						
2. Normative/Narrative	0.27	0.44	-.53**					
3. Absolute	0.24	0.43	-.49**	-.34**				
4. Feedback Valence	2.44	0.19	.11	-.04	-.01			
5. Implicit Theory of Ability	4.52	0.92	.22**	-.11	-.14*	.07		
6. Feedback Value	4.66	0.44	.15*	-.10	-.07	.19**	.10	

7. Positive Affective Reactions	3.44	0.52	.12	-.01	-.12	.41**	.13	.47**
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Note. *M* and *SD* are used to represent mean and standard deviation, respectively. * Indicates $p < .05$. ** indicates $p < .01$.

For the regressions presented in Table 2 and Table 3, we entered the dummy codes for normative and normative/narrative feedback, theory of ability, and feedback valence in Step 1. In Step 2, we entered all two-way interaction terms (Normative \times Theory of Ability, Normative/Narrative \times Theory of Ability, Normative \times Feedback Value, Normative/Narrative \times Feedback Value). In Step 3, we entered both three-way interaction terms (Normative \times Theory of Ability \times Feedback Value, Normative/Narrative \times Theory of Ability \times Feedback Value). Entering the dummy-coded variables for the normative and normative/narrative feedback conditions allowed us to compare each of these conditions to the absolute feedback condition. Table 2 depicts the regression results for feedback value and shows a significant three-way interaction for both the normative and normative/narrative feedback conditions (versus the absolute feedback condition), providing support for the three-way interactions described in Hypotheses 1 and 2.

Table 2: Regression for Feedback Value

Predictor	Step 1	Step 2	Step 3
Normative	0.10	0.09	0.07
Normative/Narrative	-0.01	-0.02	-0.03
Theory of Ability	0.03	0.08	0.12*
Feedback Valence	0.41*	0.34	0.22
Normative \times Theory of Ability		-0.04	-0.07
Normative/ Narrative \times Theory of Ability		-0.10	-0.14†
Normative \times Feedback Valence		-0.42	-0.32
Normative/ Narrative \times Feedback Valence		0.60	0.77†
Theory of Ability \times Feedback Valence		0.14	-0.53†
Normative \times Theory of Ability \times Feedback Valence			0.94*
Normative/Narrative \times Theory of Ability \times Feedback Valence			1.14**
R^2	0.06	0.10	0.14
F -change		2.07†	4.29*

Note. Standardized regression coefficients are presented.
† $p < .10$. * $p < .05$. ** $p < .01$.

To further probe these interactions, we plotted the interactions for the normative vs. absolute (Figure 1) and normative/narrative vs. absolute (Figure 2) feedback conditions, performing both slope difference tests and simple slope tests to evaluate Hypotheses 1a, 1b, 2a, and 2b (Dawson & Richter, 2006; Dawson, 2014). We used feedback condition, high and low values of average feedback score (+1 and -1 *SD* from the mean), and values corresponding with incremental and entity theorists on our implicit theory of ability measure (2 and 5 on a 7-point Likert scale for entity and incremental theorists, respectively).

To test H1a, we examined the slopes comparing feedback value in the normative (vs. absolute) feedback condition for incremental theorists with high versus low average scores (lines 1 and 2 in Figure 1). Incremental theorists with high average scores did not value normative (vs. absolute) feedback, and incremental theorists with low average scores did not value absolute (vs. normative) feedback, nor was there a significant slope difference for incremental theorists with high versus low scores. Thus, H1a was not supported.

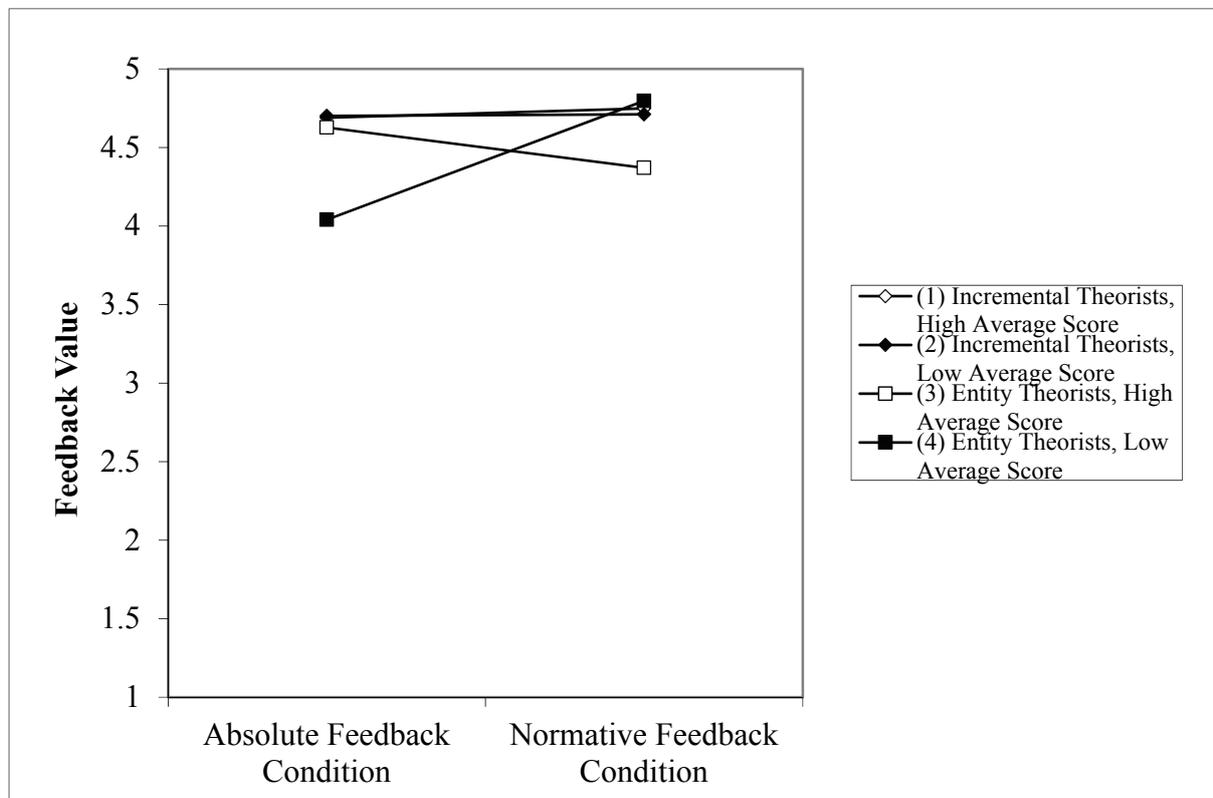


Figure 1: Three-way interaction between feedback type (absolute vs. normative), implicit theory of ability, and average score predicting employees' perceptions of feedback value

To test H1b, we examined the slopes comparing feedback value in the normative (vs. absolute) feedback condition for entity theorists with high versus low average scores (lines 3 and 4 in Figure 1). There was a significant difference in the slopes for entity theorists with high versus low average scores ($p = .023$), such that entity theorists with low average scores preferred normative (vs. absolute) feedback ($p = .013$), whereas entity theorists with high average scores tended to prefer absolute (vs. normative) feedback ($p = .398$). Thus, H1b was supported.

To test H2a, we examined the slopes comparing feedback value in the normative/narrative (vs. absolute) feedback condition for incremental theorists with high versus low average scores (lines 1 and 2 in Figure 2). There was a significant difference in the slopes for incremental theorists with high versus low average scores ($p = .007$), such that incremental theorists with low average scores valued absolute over normative/narrative feedback ($p = .011$), whereas incremental theorists with high average scores tended to value normative/narrative over absolute feedback ($p = .237$). Thus, H2a was supported.

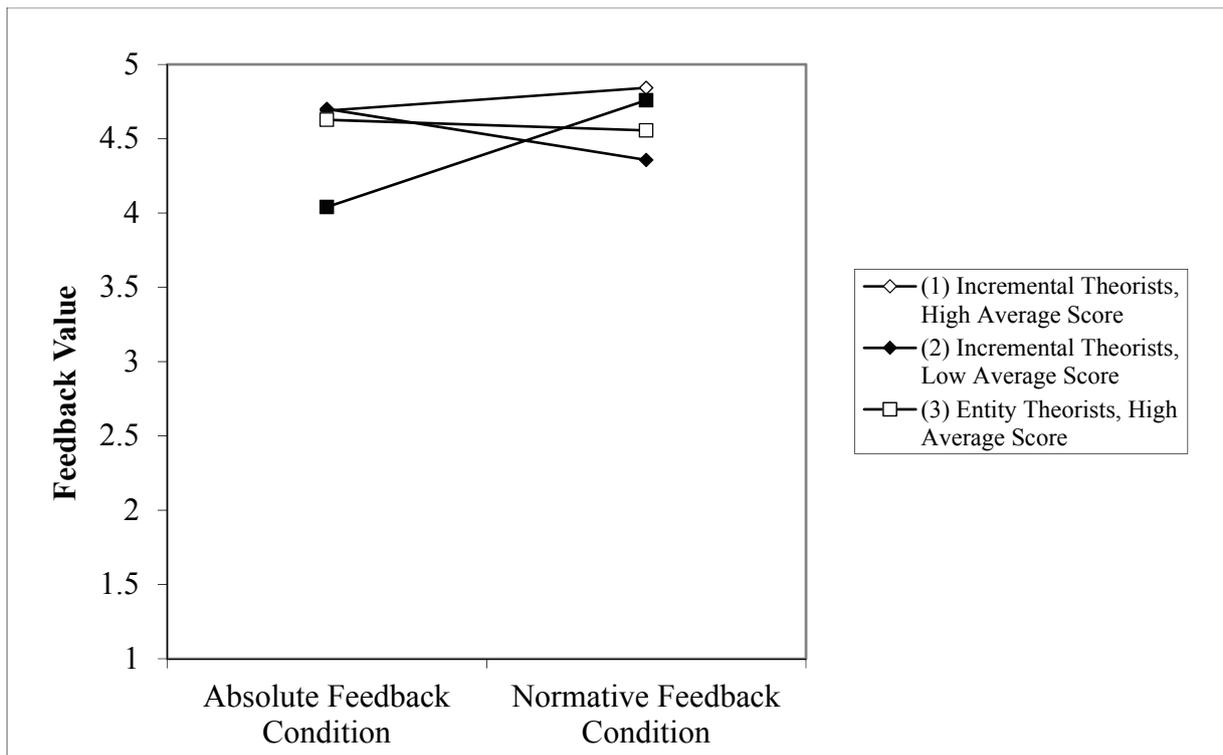


Figure 2: Three-way interaction between feedback type (absolute vs. narrative), implicit theory of ability, and average score predicting employees' perceptions of feedback value

To test H2b, we examined the slopes comparing feedback value in the normative/narrative (vs. absolute) feedback condition for entity theorists with high versus low average scores (lines 3 and 4 in Figure 2). There was a significant difference in the slopes for incremental theorists with high versus low average scores ($p = .049$), such that entity theorists with low average scores valued normative/narrative over absolute feedback ($p = .017$), whereas entity theorists with high average scores tended to value absolute (vs. normative/narrative) feedback ($p = .793$). Thus, H2b was supported.

We tested and probed Hypotheses 3 and 4 regarding affective reactions to feedback in the same manner. Regression results for these hypotheses are depicted in Table 3 and provide support for the three-way interactions described in Hypotheses 3 and 4. Interaction plots for the normative vs. absolute conditions are illustrated in Figure 3, and for the normative/narrative vs. absolute conditions are illustrated in Figure 4.

Predictor	Step 1	Step 2	Step 3
Normative	-0.13	0.13	0.10
Normative/Narrative	-0.04	0.12	0.11
Theory of Ability	-0.09	0.09	0.14*
Feedback Valence	-0.89	1.14	0.99**
Normative × Theory of Ability		-0.08	-0.13
Normative/Narrative × Theory of Ability		-0.03	-0.08
Normative × Feedback Valence		-0.49	-0.38
Normative/Narrative × Feedback Valence		0.57	0.78†
Theory of Ability × Feedback Value		0.41	-0.44
Normative × Theory of Ability × Feedback Valence			1.26**

Normative/Narrative × Theory of Ability × Feedback Valence			1.40**
R^2	0.13	0.23	0.27
F -change		2.57*	5.74**

Note. Standardized regression coefficients are presented.
 † $p < .10$. * $p < .05$. ** $p < .01$.

Table 3: Regression for Positive Reactions to Feedback

To test H3a, we examined slopes comparing affective reactions to feedback in the normative (vs. absolute) feedback condition for incremental theorists with high versus low average scores (lines 1 and 2 in Figure 3). There was not a significant difference between these slopes ($p = .661$). Thus, H3a was not supported.

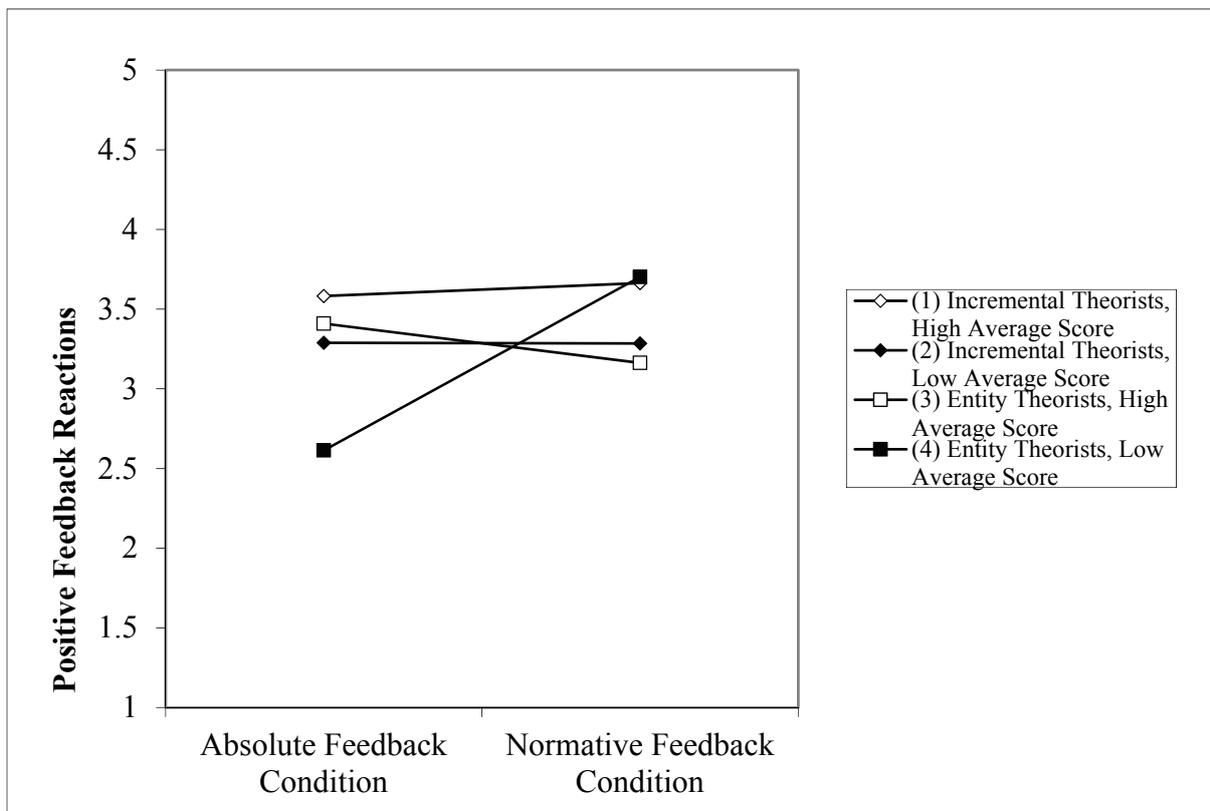


Figure 3: Three-way interaction between feedback type (absolute vs. normative), implicit theory of ability, and average score predicting employees' positive reactions to feedback

To test H3b, we examined slopes comparing affective reactions to feedback in the normative (vs. absolute) feedback condition for entity theorists with high versus low average scores (lines 3 and 4 in Figure 3). There was a significant difference in the slopes for entity theorists with high versus low average scores ($p = .006$), such that entity theorists with low average scores reacted more positively to normative than absolute feedback ($p = .001$), whereas entity theorists with high average scores tended to react more positively to absolute than normative feedback ($p = .457$). Thus, H3b was supported.

To test H4a, we examined slopes comparing affective reactions to feedback in the normative/narrative (vs. absolute) feedback condition for incremental theorists with high versus low average scores (lines 1 and 2 in Figure 4). There was a significant difference in the slopes for incremental theorists with high versus low average scores ($p = .006$), such that incremental

theorists with high average scores reacted more positively to normative/narrative (vs. absolute) feedback, whereas incremental theorists with low average scores tended to react more positively to absolute than to normative/narrative feedback ($p = .164$). Thus, H4a was supported.

To test H4b, we examined slopes comparing affective reactions to feedback in the normative/narrative (vs. absolute) feedback condition for entity theorists with high versus low average scores (lines 1 and 2 in Figure 4). There was a significant difference in the slopes for incremental theorists with high versus low average scores ($p = .018$), such that entity theorists with low average scores reacted more positively to normative/narrative (vs. absolute) feedback ($p = .012$), whereas entity theorists with high average scores tended to react more positively to absolute (vs. normative/narrative) feedback ($p = .475$). Thus, H4b was supported.

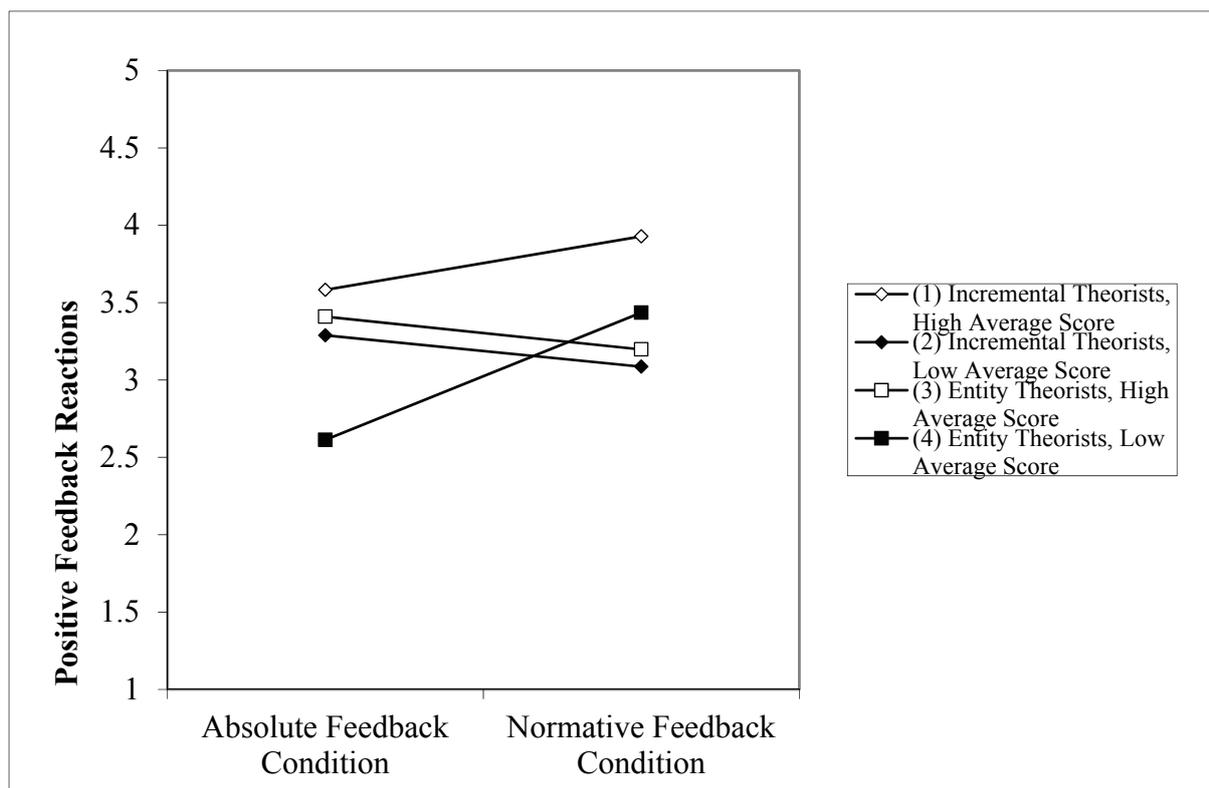


Figure 4: Three-way interaction between feedback type (absolute vs. narrative), implicit theory of ability, and average score predicting employees' positive reactions to feedback

To test Hypotheses 5 and 6, we conducted the same regressions, but used dummy coded variables for normative/narrative and absolute feedback conditions so that we could explore the relationship between narrative and normative feedback with normative feedback, alone, as the comparison condition. Regression output was the same, save the regression terms comparing narrative versus normative feedback conditions. The three-way interaction term (Normative and Narrative Condition \times Theory of Ability \times Feedback Value) was not significant for feedback value ($t = 0.45, p = .653$). Thus, Hypothesis 5 was not supported. The three-way interaction term (Normative and Narrative Condition \times Theory of Ability \times Feedback Value) was also not significant for positive reactions to feedback ($t = .30, p = .765$). Thus, Hypothesis 6 was not supported.

Discussion

This study revealed that both implicit theory of ability and feedback type impact the receiver's affective reactions and perceptions of value. Consistently, entity theorists prefer (value and

react positively to) feedback that provides more other-focused information (normative and normative/narrative) to absolute feedback when the feedback they are receiving is negative. Although entity theorists tended to prefer absolute feedback over feedback that provided other-focused information when the feedback they were receiving was positive, these slopes were not statistically significant. Incremental theorists somewhat consistently preferred (valued and reacted positively to) absolute feedback to feedback that provided normative information when the feedback they received was negative. Though incremental theorists tended to prefer normative and normative/narrative feedback over absolute feedback when the feedback they were receiving was positive, these slopes were not statistically significant. These findings indicate that feedback format matters most when the feedback individuals are receiving is negative. There were no statistically significant differences between the normative condition and the normative/narrative condition. This suggests that the presence of normative feedback, rather than additional information, is the contributing factor that determines the receiver's affective reaction and perceptions of value.

Theoretical Implications

Beyond the scope of previous research, the design of the current study allowed us to disentangle the effects of feedback type (i.e., absolute vs. normative vs. normative/narrative), and isolate the effects on reactions solely due to the presence of normative feedback. The condition providing more feedback (normative/narrative) did not strengthen these relationships compared to the normative condition alone, potentially suggesting that these results are driven by comparison to others rather than by providing additional/richer feedback. This is an important theoretical contribution because the prior study investigating the effects of normative feedback on reactions found that numeric/normative feedback was perceived more positively than text feedback (Atwater & Brett, 2006). As the authors explain, this could be because numbers appear more specific than text or simply because more information was provided in the normative/numeric feedback condition than the text condition (Atwater & Brett, 2006). The results presented in this study suggest it is the presence of normative feedback specifically that can lead to more positive reactions for entity theorists, and that providing additional narrative feedback does not improve reactions to normative feedback for incremental theorists. This hypothesis may have not been confirmed due to confounding variables that are uncontrollable in a field study, which we discuss more in the limitations section, or it is possible that the narrative feedback simply did not provide any incremental benefit over the normative feedback.

The current study also pointed to the importance of considering how individual differences interact with feedback format to predict reactions. The preference for feedback with normative feedback in comparison to absolute feedback was largely dependent on an individual's implicit theory of ability. Entity theorist preferred more information when receiving negative feedback, whereas incremental theorist tended to prefer less information (absolute feedback condition) when receiving negative feedback. In line with prior research (e.g., Butler, 2000; Zingoni & Byron, 2017), we find that individuals who believe that their ability is fixed (i.e., entity theorists) seem to attenuate to other-focused information when they are seeking additional information on their performance.

Practical Implications

Organizations are often challenged with how to effectively design feedback systems to maximize the recipient's openness and willingness to take action. Organizations have made decisions on the systems, whether sharing absolute or normative feedback, based on intuition or experience without evidence-based support for how to best present multisource feedback. Recipients of multisource feedback may be prone to reject or discount feedback that

disconfirms their identity, so their belief in its accuracy is critical to their likelihood to act on the feedback. Evidence from our study shows that perceptions of 360° feedback are dependent on not only the interaction between implicit theories of ability and feedback format, but also on feedback valence. This finding emphasizes the importance of, where possible, tailoring feedback results to the recipient through the report format itself or considering another mechanism for tailoring feedback, such as through an individual debrief with a coach. Our study showed that providing more information (normative/narrative) did not provide any additional benefit over simply providing normative feedback. These results suggest that embedding the multiple format presentation in the report may not yield a successful “one-size-fits-all” approach.

A simple way that organizations can adapt feedback to fit the preferences of each individual is to provide the individual with absolute feedback and then give them the option to view normative data if they desire. This option can be paired with a disclaimer explaining how normative feedback can be useful, or not, based on the individual’s perspective. The only downside is that the feedback recipient may be curious even though they are ultimately negatively affected by viewing such information. However, it gives them the option to avoid this impact if they prefer not to be compared to others with normative data. Offering debriefs to discuss the feedback, holding meetings with mentors, and providing opportunities for developmental activities are some approaches to help overcome any unsatisfactory impact that an individual might feel toward receiving negative feedback with or without normative data.

Limitations and Future Directions

This study extended research to date in this area by replicating and introducing new elements to the study of multisource feedback. We examined absolute vs. normative vs. normative/narrative feedback presentation for leaders within a healthcare setting. Future research should continue this examination within different settings and different types of employees.

Despite its strengths, the study was not without limitations. As is the case with any quasi-experimental design, extraneous factors may have come into play. For example, because we collected data for separate conditions at different time points, it is possible that there were other organizational changes that may have occurred that could not be accounted for in the study. Also, although we had a very diverse sample in terms of demographics, our sample focuses specifically on leaders. Therefore, our findings may not generalize to other employment levels. Leaders may vary from other positions in terms of how receptive they are to feedback in general. This limitation provides interesting directions for future research to examine. Further, introducing a debrief by a coach that is tailored to the individual’s feedback preferences could add another element to investigate – whether the individual debrief impacts the results observed in the current study, i.e., lessens the impact of report format. Another future research direction is to focus on the rater’s perspective, such as assessing whether the rater’s implicit theory of ability impacts how the feedback is delivered and received.

We would also like to mention that there has been a growing opinion to move away from 360° feedback to single-source feedback because the time and effort put into multiple sources may not actually provide any additional information for an individual (DeNisi & Kluger, 2000; Pulakos, Mueller-Hanson, Arad, & Moye, 2015). However, more research needs to investigate whether 360° feedback is more useful than single-source feedback, and if so, how it is most effectively delivered.

Conclusion

The current study provides a timely investigation on the proper use of 360° feedback, given its rise in popularity. In general, our study provides evidence that feedback valence matters when considering the interaction between individuals' implicit theories of ability and feedback format. In general, we found that, preferences for feedback format matter most when feedback is negative, as negative feedback may lead participants to seek additional information regarding the feedback they receive. These findings support the notion that feedback should be tailored to individuals, but also demonstrate that tailoring feedback is most important for individuals who receive negative feedback. We provide both practical and theoretical implications of our findings and encourage further research into how multisource feedback should be delivered.

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