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# Factors Influencing Feedback Receptivity

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FACTORS INFLUENCING FEEDBACK RECEPTIVITY

For the degree of Master of Science

Is approved by the final examining committee:

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Date

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Submitted to the Faculty

of

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by

Michael J. Plouviez

In Partial Fulfillment of the

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of

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## LIST OF ABBREVIATIONS

ITSA	Implicit Theories of Selling Ability
FE	Feedback Environment
FSB	Feedback Seeking Behavior
FAB	Feedback Avoidance Behavior
TOI	Theory of Intelligence

## ABSTRACT

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Current methods in assessing a person's receptivity to feedback are inherently biased. First, these methods are founded upon differing assumptions about feedback availability. Feedback seeking, operationalized as effort toward acquiring feedback, assumes feedback must be actively sought, also thus assumes feedback is not imminent. Feedback avoidance, operationalized as effort toward delaying or avoid receipt of feedback, assumes feedback must be actively avoided, and thus also assumes feedback is imminent. Second, implicit in the methods' definitions of effort *toward* or *away* from feedback is the assumption that feedback receptivity results from a motivated state rather than being influenced by default feedback availability. This research provides a more comprehensive account of feedback receptivity by systematically varying both motivations and feedback availability and examining their relative effects on receptivity. The data supported the influence of motivated factors on receptivity but failed to support the influence of defaulted feedback availability on receptivity. Further, coping resources, perceived utility, and perceived feedback recommendation influenced receptivity. These results may help managers leverage this knowledge to maximize feedback receptivity behaviors in the workplace.

## CHAPTER 1. INTRODUCTION

The feedback employees obtain from managers, coworkers, and clients is considered an optimal tool for employees to learn their jobs and improve their productive output (Ashford & Cummings, 1983; Dickinson, 1993; Jaworski & Kohli, 1991). As such, many organizations expend considerable resources generating and disseminating performance appraisals (Anseel, Van Yperen, Janssen, & Duyck, 2011; Dickinson, 1993; Price, Handley, Millar, & O'Donovan, 2010). According to the Sales Education Foundation (2011), firms spend over \$7 billion annually training sales personnel. Furthermore, professional feedback systems such as 360° Feedback by Custom Insight, cost \$95 per feedback recipient in addition to set-up fees that range from hundreds to thousands of dollars. The intent of these efforts is that employees will use this feedback to improve themselves and yield increased employee performance outcomes (Ashford & Cummings, 1983; Farr, 1993).

Whether managers realize it or not, the success of these feedback efforts is based on multiple assumptions, and several factors can influence employees' receptivity to feedback. If managers want to optimize the intended effects of feedback, they must understand the factors that may influence feedback receptivity. However, it appears that both managers and researchers have conceptually and methodologically

ignored/confounded the considerations that may influence feedback receptivity. The current research identifies and varies considerations of availability of feedback and desire for feedback on overall feedback receptivity.

### 1.1. Choice Architecture and Feedback Receptivity

Thaler and Sunstein (2008) and others have repeatedly demonstrated that default choices in a given environment can affect decision-making in that environment in profound ways. Thaler & Sunstein (2008) coined the term “choice architecture” to define the study and design of default choice or “pre-selected options” environments. The effects of default choices were initially examined in employee retirement savings behaviors. Choi, Laibson, Madrian, & Metrick (2001; 2004) reported that employees often follow “the path of least resistance” when establishing their 401(k) plans and accept the default savings choices established by retirement plan administrators. Building on the default choice conceptual framework, Johnson & Goldstein (2003) found that countries that implemented an opt-out organ donation policy had significantly higher rates of organ donations than countries that had an opt-in policy. Furthermore, Pichert & Katsikopoulos (2008) and Sunstein & Reisch (2014) found that consumers were more likely to engage and adhere to pro-environmental green electricity behaviors when those choices were made the default choices, even when engaging in the green behaviors implied a higher cost. The findings appear to converge on a very clear conclusion: when an option is defaulted, it is more likely to be chosen.

To date, no research has investigated feedback receptivity from a choice architecture perspective. Choice architecture could be an important predictor of feedback

receptivity. We believe that the same choice architecture principles will manifest in an organization's feedback environment, and that managers may be missing an opportunity to maximize their employees' receipt of feedback. Although many organizations understand that feedback can improve employee performance, they may be unaware of the influence that an organization's feedback environment (FE) might play in employees attaining such feedback.

An organization's feedback environment is a type of information environment where information related to an employee's performance may exist (Ilgen, Fisher, & Taylor, 1979; Herold & Fedor, 2003; London & Smither, 2002). Importantly, Farr (1993) acknowledges that feedback availability in different FEs may vary, which could influence how employees must interact with the FE to obtain the feedback. Feedback accessibility within an organization's FE may take one of two forms. In a *feedback present* default FE, an organization may routinely or automatically disseminate performance feedback. Consequently, feedback information is readily accessible to employees; employees do not need to spend effort to obtain the information. On the contrary, in a *feedback absent* FE, an organization may choose to not automatically or routinely disseminate formal performance feedback to its employees. Consequently, feedback accessibility is reduced and employees would have to expend some effort to obtain feedback information if they desire it. It seems intuitive that, like behaviors in other domains, defaults in FEs would influence the likelihood of employees having feedback. However, with the complexity of the things managers must juggle, awareness about FE defaults is likely low. Figure A1 presents the basic framework of these FEs.

Why might defaults have the effect they do beyond ease of access? Past research has indicated that the feedback mechanism that a manager chooses may reveal his or her firm's feedback priorities (Dickinson, 1993; London & Smither, 2002; McKenzie, Liersch, & Finkelstein, 2006). Applied to default FEs, an employee may view a feedback present default to mean that feedback is very important, very useful, and highly recommended. Likewise, an employee may view a feedback absent default to mean that feedback is less important, less useful, and less recommended. The above literature and rationale leads to the following hypotheses:

*Hypothesis 1a: The default feedback environment will influence feedback receptivity such that, more people in the feedback present default condition will receive feedback than in the feedback absent default condition.*

*Hypothesis 1b: The default environment will influence perceived recommendation of having feedback, such that people in the feedback present default condition will perceive feedback as more recommended than in the feedback absent default condition.*

*Hypothesis 1c: The more a person perceives the feedback to be recommended, the more receptive to feedback they will be.*

### 1.1.1. Considerations of Motives in Decision-Making

Before we introduce various possible motives in decisions regarding feedback receptivity, it is important to note that extant methods for measuring feedback receptivity in FEs are also biased. Specifically, research has examined feedback receptivity with methods that describe either an approach (feedback seeking) *or* avoidance (feedback avoidance) motivation. These operationalizations of FSBs and FABs assume that motivated states are the sources of feedback receptivity. Unfortunately, by ignoring defaults these methodologies do not allow a person to understand what factors are truly influencing receipt of feedback—various motives, defaults, or a combination thereof. Below we discuss the existing methodologies, their limitations, and research that supports motivational hypotheses of feedback receptivity.

It has been assumed that the two main operationalizations of feedback receptivity—feedback seeking and feedback avoiding—are two sides of the same coin. However, they may in fact represent two separate coins. For instance, if an employee does not actively seek feedback, should it be automatically assumed that this employee is intentionally avoiding feedback? It is entirely plausible that an employee would accept readily available feedback if presented with the opportunity, but lacked sufficient motivation to take action to obtain it. It is also possible that this employee actively does not want feedback and would avoid feedback if it was presented. These alternatives represent different internal states. Therefore, a feedback seeking paradigm cannot discern whether the employee simply lacks sufficient desire to take action to acquire feedback and thus adheres to the default or the employee actively is avoiding feedback. Regardless, in either instance the employee is considered a non-seeker.

Similarly, if an employee does not actively avoid feedback that is available, should it be automatically assumed that this employee actively wants it? Again, it is possible that this employee would not actively seek feedback if it required effort, but lacked sufficient motivation to take action to avoid it. It is also possible that this employee actively does want feedback and would take action to acquire it. These alternatives, too, represent very different internal states. However, a feedback avoiding paradigm cannot discern whether the employee simply lacks sufficient desire to take action to avoid feedback and thus adheres to the default or the employee would actively seek feedback. Again, in either case the employee would be considered a non-avoider. Figure A2 illustrates employee feedback receptivity tendencies within the hypothesized default FEs.

Thus, neither current paradigm alone is sufficient to determine the extent to which employee receptivity to feedback is due to motivated (action) factors or unmotivated (default) factors. In other words, extant literature focuses on employees who are true feedback seekers, employees who are excited for feedback and seek it at every opportunity; or true feedback avoiders, employees who are fearful of feedback and avoid it at all costs. What is missing is an investigation of the seemingly preference-less employee population that adheres to the defaulted FE. Such employees are no more likely to avoid feedback if it is readily available to them than they are to seek feedback if it is not readily available to them.



## 1.2. Motivated Factors

As the previous sections highlight, both feedback seeking and feedback avoidance methods are correct in their assumptions that motivation may be a factor influencing feedback receptivity. Furthermore, researchers have noted that not all people are equally receptive to feedback (VandeWalle, 1997; Novell et al. 2016), and that an employee's receptivity to feedback may be influenced by a wide array of motivational factors. In this section, we describe and hypothesize effects of several motivated factors that may explain employee feedback receptivity. The motivated factors include feedback valence (i.e., positive vs. negative feedback) and mindsets (incremental vs. entity), perceived utility, coping ability, affect, and perceived psychological costs and benefits.

### 1.2.1. Feedback Valence

The primary function of performance feedback is to convey whether an employee's output conforms to managerial expectations. Positive feedback generally reinforces the employee's attitudes, behaviors, and productivity that match the firm's objectives. Negative feedback, on the other hand, highlights the employee's deficiencies or weaknesses.

Different opinions exist on the extent to which people are generally receptive to feedback, and whether receptivity differs based on feedback valence. On the one hand, Ilgen, Fisher, & Taylor (1979) theorized that individuals would prefer and recall positive feedback more than negative feedback. Negative feedback would be denied and avoided due to its potential damaging effects on the individual's self-concept.

On the other hand, some organizational feedback systems, such as the 360° feedback process, are founded on the belief that employees would be receptive to negative feedback because it accentuates areas for improvement (Brett & Atwater, 2001). Empirical data tend to support employee preference for positive versus negative feedback. Novell, Shepperd, and Webster (2016) found that students who expected unfavorable academic feedback were more likely to avoid feedback than were students who expected favorable academic feedback. These trends lead to the following hypothesis regarding feedback receptivity in the workplace:

*Hypothesis 2: Feedback valence will influence receptivity to feedback such that more people in the success feedback condition will receive feedback than in the failure feedback condition.*

### 1.2.2. Mindsets

An individual's mindset is his or her belief in either the mutability or fixedness of his or her traits and abilities (Dweck & Leggett, 1988; Murphy & Dweck, 2016). An *incremental* or *incremental mindset* is characterized by a belief that effort and ability are linked. Since abilities are changeable, failure is interpreted as both temporary and as an opportunity to master new skills and improve upon past performance (Dweck & Leggett 1988). An *entity* or *entity mindset* is based on the belief that abilities are unchangeable and established at birth. Since abilities are immutable, failure is interpreted as permanent and as a limit of his or her ability. Consequently, the potential for feedback to threaten

perceived ability is much higher for people with an entity mindset than an incremental mindset.

Mindsets also have an impact on employee feedback receptivity in the workplace. For example, Trope et al. (2003) found that individuals with an entity mindset were less willing to receive negative feedback and exhibited helpless response patterns in response to failure situations. Similarly, other research has found that people with an entity mindset are less receptive to feedback than are people with an incremental mindset in academic (Novell et al. 2016) and sales settings (Novell, Machleit, & Sojka, 2016). In light of these considerations,

*Hypothesis 3: Implicit theories will influence receptivity to feedback such that more people in the incremental mindset condition will receive feedback than in the entity mindset condition.*

Incremental mindset individuals should be more inclined than entity mindset individuals to seek feedback information. They do so under the belief that any feedback can help them improve future performance.

### 1.2.3. Hypotheses on Interactions

The literature also points to possible interactions among these factors, some of which will be uniquely examined in this research. Therefore, the following hypotheses are proposed to explain the relationships between the various factors:

*Hypothesis 4a: There will be a two-way interaction between mindset and feedback valence such that people with an entity mindset (and not an incremental mindset) should be less receptive to negative feedback than positive feedback.*

*Hypothesis 4b: Default condition will exacerbate the effect of feedback valence, such that feedback receptivity should be highest among people who expect positive feedback and have a feedback present default FE, and should be lowest among people who expect negative feedback and have a feedback absent default FE.*

*Hypothesis 4c: The interaction in H4b will be further qualified by mindset, such that it holds for people with an entity mindset but not an incremental mindset.*

### 1.3. Other (Mediating) Factors

Perceived feedback utility, coping ability, affect, and perceived psychological costs and benefits may function as powerful mediators that affect feedback receptivity. These factors and their resulting hypotheses are discussed in the following sections.

#### 1.3.1. Perceived Feedback Utility

Feedback that is high in perceived utility may lead to increased employee performance (Brett & Atwater, 2001; Dickinson, 1993; Ilgen & Davis, 2000; Ilgen, et al., 1979; Ilgen & Moore, 1987; Jaworski & Kohli, 1991; London & Smither, 2002). Indeed, research tends to support this assumption. Feedback with high utility may reduce

ambiguity by explaining whether an employee's output adheres to the productive requirements of his or her position (Ashford & Cummings, 1985; Harvey & Harris, 2010). Ashford & Cummings (1985) reported that new employees actively seek feedback so they can use it to meet job expectations. There are occasions when employee behavior or actions do not fall in line with organizational requirements and negative feedback must be issued (Ilgen & Davis, 2000). A common assumption regarding feedback is that negative feedback should be perceived as being high in utility, because that information directly references traits or behaviors that can be directly modified, thereby improving job performance (Brett & Atwater, 2001).

*Hypothesis 5a: Perceived utility of feedback should be positively correlated with feedback receptivity.*

*Hypothesis 5b: There will be a positive correlation between mindset and feedback perceived utility, such that people with an incremental mindset (and not an entity mindset) should be more likely to find feedback useful.*

### 1.3.2. Affect

Carver & Scheier (1990, 1998) predicted that when a person encounters positive feedback, he or she may experience increased positive affect; however, when a person is presented with negative feedback, he or she may experience greater negative affect. For example, Brett & Atwater (2001) reported that negative feedback led to increased

negative emotions (e.g., anger & discouragement). Additionally, Sweeny et al. (2010) reported that individuals tend to avoid information that may cause them to feel bad.

*Hypothesis 6a: There will be a positive correlation between affect and feedback receptivity, such that people with more positive affect will be more receptive to feedback.*

*Hypothesis 6b: There will be a positive correlation between affect and feedback valence, such that people who expect positive feedback will have more positive affect.*

### 1.3.3. Coping Ability

Feedback can have significant effect on how a person copes with challenges in his or her environment. Hong and colleagues (1999) theorized that a person's mindset could affect how that person copes with such challenges. Hong et al. (1999) found that people with an entity mindset were more likely to engage in helpless response patterns (e.g., withdrawing effort or procrastinating) in order to compensate for poor performance. Additionally, Sweeny et al. (2010) theorized that people who do not have adequate coping resources are more likely to avoid negative or unwanted information.

*Hypothesis 7a: There will be a positive correlation between coping ability and feedback receptivity, such that people with higher coping ability will be more receptive to feedback.*

*Hypothesis 7b: There will be a positive correlation between coping ability and mindset, such that people with an incremental mindset (versus an entity mindset) will have higher coping ability.*

*Hypothesis 7c: There will be a positive correlation between coping ability and feedback valence, such that people who expect positive feedback should have higher coping ability.*

*Hypothesis 7d: There will be a positive correlation between coping ability and utility, such that people with a higher coping ability will also find feedback higher in utility.*

#### 1.3.4. Psychological Costs and Benefits

The informational content of feedback must also be weighed in terms of its psychological costs and benefits, and can influence people's receptivity to feedback (VandeWalle, Ganesan, Challagalla, & Brown, 2000). Jaworski and Kohli (1991) found that positive feedback that refers to an employee's output had the greatest effect on increased performance, whereas positive feedback on his or her behaviors increased job satisfaction rates. Trope et al. theorized that feedback receptivity may be motivated by the informational value of the feedback and that negative feedback threatens self-esteem. As noted above, feedback that is high in perceived utility should be considered beneficial; whereas feedback that necessitates a change in beliefs, prompts the individual to perform

undesirable actions, or increases negative emotions should be considered psychologically costly.

*Hypothesis 8a: There will be a negative correlation between psychological costs and feedback receptivity.*

*Hypothesis 8b: Feedback valence will influence perceived psychological costs of feedback, such that people in the failure condition will view feedback as more psychologically costly than participants in the success condition.*

*Hypothesis 8c: There will be a negative correlation between psychological costs and mindsets, such that people with an incremental mindset will be less likely (compared to people with entity mindsets) to perceive feedback as psychologically costly.*

*Hypothesis 8d: There will be a negative correlation between psychological costs and feedback utility, such that as perceived feedback utility increases, psychological cost decreases.*

*Hypothesis 9a: There will be a positive correlation between psychological benefits and feedback receptivity.*



*Hypothesis 9b: There will be a positive correlation between psychological benefits and feedback valence, such that positive feedback will be viewed as more beneficial than negative feedback.*

*Hypothesis 9c: There will be a positive correlation between psychological benefits and mindsets, such that people with an incremental mindset will be more likely (compared to people with an entity mindset) to perceive feedback as beneficial.*

*Hypothesis 9d: There will be a positive correlation between psychological benefits and feedback utility, such that as perceived utility increases, benefits of the feedback also increase.*

#### 1.4. The Present Research

As a result of the assumptions made and factors ignored by researchers and managers, one cannot systematically disentangle the relative impact of motivated and unmotivated factors on feedback receptivity. To address this problem, the present research synthesizes methodological approaches from social psychology and behavioral economics to provide a more comprehensive account of how employees make feedback-related decisions in FEs and to help managers balance this knowledge to maximize feedback receptivity in the workplace.

## CHAPTER 2. METHODS

### 2.1. Participants and Design

The participants for this experimental survey were drawn from two independent sources. Two hundred seventy-three undergraduate students were recruited from a large Midwestern university (62% female; age 18-33,  $M = 18.74$ ,  $SD = 1.80$ ) and 26 adults living in the United States were recruited via Amazon's Mechanical Turk (54% female; age 19-62,  $M = 35.58$ ,  $SD = 11.35$ ). Student participants were automatically entered into a raffle to win one of many \$25 Amazon gift cards (odds 1:25). Amazon Mechanical Turk participants were each paid a flat \$2.40 for their time. Consistent with Berinsky, Huber, & Lenz (2011), a preliminary analysis revealed no significant differences between student and Amazon Mechanical Turk participants.

Each participant was randomly assigned conditions in a 2 (Implicit Theory of Selling Ability: *entity* vs. *incremental*)  $\times$  2 (Outcome: *success* vs. *failure*)  $\times$  3 (Default feedback state: *feedback present* vs. *feedback absent* vs. *no default choice*) between-subjects factorial design. The *no default choice* condition was implemented for two reasons. First, we realized that although in-person environments, default options are dichotomous (either present or absent), online environments present the unique situation of having options without specifying a default. Because this study was conducted online, we thought that adding this condition would strengthen the design by better

approximating online feedback decision processes. Second, we thought a no default choice would nicely serve as a control condition to assess ambient individual feedback receptivity decisions in the absence of managerial priorities or biases.

## 2.2. Measures

The survey included the following measures in Likert format:

Theory of Intelligence (ToI) was measured with a 3-item *Theory of Intelligence Adult Scale* (Dweck, et al., 1995). An example item is “*You can learn new things, but you can’t really change your intelligence*” (1 = *Strongly Agree* to 6 = *Strongly Disagree*). A ToI composite was calculated by averaging the 3 items together, with higher numbers indicating a more incremental ToI ( $\alpha = .97$ ,  $M = 4.35$ ,  $SD = 1.38$ ).

Implicit Theory of Selling Ability (ITSA) was measured with a 6-item scale that was developed by Novell, Machleit, & Sojka (2016). Three items were generated by adapting the ToI to a sales context, and 3 additional items concerning the nature-or-nurture abilities of salespeople were constructed from phrases regarding sales talent. Example items include “*When it comes to selling, you have a certain ability, and you can’t really do much to change it*” and “*A good salesperson is born, not made*” (1 = *Strongly Agree* to 6 = *Strongly Disagree*). A ITSA composite was calculated by averaging the items together, with higher numbers indicating a more incremental ITSA ( $\alpha = .93$ ,  $M = 3.88$ ,  $SD = 1.04$ ).

Feedback avoidance was measured with a 9-item scale developed by Novell et al. (2016). This scale assessed participant’s tendencies to avoid feedback from supervisors. An example item is “*I would rather not know if I performed poorly on an assignment.*” A

Feedback Avoidance composite was calculated by averaging the items together, with higher numbers indicating greater feedback avoidance tendencies ( $\alpha = .86$ ,  $M = 2.04$ ,  $SD = .73$ ).

Confidence in selling ability was measured with a 7-item scale. An example item is “*I am confident in my selling ability.*” A confidence composite was calculated by averaging the items together, with higher numbers indicating greater confidence in selling ability ( $\alpha = .90$ ,  $M = 3.55$ ,  $SD = .86$ ).

Resiliency was measured with a 3-item scale. An example item is “*It would be hard for me to get over a selling performance failure.*” A resiliency composite was calculated by averaging the items together, with higher numbers indicating higher resiliency ( $\alpha = .83$ ,  $M = 3.35$ ,  $SD = .95$ ).

Difficulty, Effort, Perceived Recommendation and Perceived Comparisons were each single items measured with 7-point scales. Participants indicated how difficult they thought the writing pitch task was (1 = *Not at all difficult* to 7 = *Very difficult*), how much effort they exerted in the writing task (1 = *No effort* to 7 = *A lot of effort*), whether they thought seeing the recruiter’s comments (feedback) was suggested (1 = *Strongly disagree* to 7 = *Strongly agree*), and their perceived comparisons to other participants (1 = *I did much worse than others* to 7 = *I did much better than others*).

Affect was measured with a 4-point scale. The five affect items included feeling calm, nervous, tense, anxious, and relaxed (1 = *Not at all* to 4 = *Very much so*). An affect composite was calculated by averaging the items together, with higher numbers indicating more positive affect ( $\alpha = .82$ ,  $M = 3.28$ ,  $SD = .67$ ).

Coping ability was assessed on a 7-point scale (1 = *Strongly disagree* to 7 = *Strongly agree*). An example item is “I believe that seeing the recruiter’s comments about my sales pitch might make me feel bad (e.g., depressed, sad, angry, etc.).” A coping composite was calculated by averaging the three items together, with higher numbers indicating higher coping ability ( $\alpha = .61$ ,  $M = 5.75$ ,  $SD = .97$ ).

Psychological Costs of Feedback were assessed on a seven-point scale (1 = *Strongly disagree* to 7 = *Strongly agree*). An example item is “I believe that seeing the recruiter’s comments about my sales pitch might threaten an important belief about myself (such as that I’m skillful or competent).” A psychological cost composite was calculated by averaging the five items together, with higher numbers indicating greater perceived costs of viewing the feedback ( $\alpha = .84$ ,  $M = 1.93$ ,  $SD = 1.00$ ).

Psychological Benefits of Feedback were assessed on a seven-point scale (1 = *Strongly disagree* to 7 = *Strongly agree*). An example item is “I expect that the recruiter’s comments about my sales pitch will show that I am highly skillful.” A psychological benefit composite was calculated by averaging the four items together, with higher numbers indicating greater perceived benefits of viewing the feedback ( $\alpha = .75$ ,  $M = 3.31$ ,  $SD = 1.36$ ).

## 2.2. Procedure

After consenting to participate, participants were told they would be completing a sales task that required them to write a sales pitch, for which they may receive feedback before completing a second writing task. Before writing their sales pitch, each participant

was randomly assigned to read one of two passages about the results of a supposed sales study, which supported either an entity or incremental ITSA mindset.

Participants in the *Entity* ITSA condition were given the following prompt that endorsed an entity-mindset view of selling ability:

*Because sales are crucial to a business's success, researchers at a top business school recently set out to determine what leads to success in a sales career. They launched a massive sales study to answer their query.*

*What did the researchers find? A quote from the head researcher at the end of the article summarizes the findings from the nearly 4500 sales reps studied: "We have a lot of complex statistics to support our findings, but if you look at the data in the simplest of terms, selling just seems to come more naturally to some people than others. Selling appears to be a talent that you 'have' or you don't, and it shows very early on who 'has it' and who doesn't."*

Participants in the *Incremental* ITSA condition were given the following prompt that endorsed an incremental-mindset view of selling ability:

*Because sales are crucial to a business's success, researchers at a top business school recently set out to determine what leads to success in a sales career. They launched a massive sales study to answer their query.*

*What did the researchers find? A quote from the head researcher at the end of the article summarizes the findings from the nearly 4500 sales reps studied: "We have a lot of complex statistics to support our findings, but if you look at the data in the simplest of terms, success in sales is the result of perseverance, hard work, and*

*practice. Selling is a highly learnable talent, and anyone really can be successful if they challenge themselves to be better."*

After reading these prompts, participants were asked to write a brief sentence about what importance these findings have for recruiting and training salespeople. Following this task, participants were given a *Write a Sales Pitch* task. Participants were instructed to analyze a product and given 6 minutes to write a brief, 300-word sales pitch based on the product's features. Participants were also told that would receive a score on their sales pitch that ranged from 1.0 to 6.0, in half-point increments. All participants were then instructed to complete some personality surveys while a fictitious "Sales Recruiter" evaluated their sales pitches.

During this waiting period, participants completed the 6-ITSA *Scale* as reported in Novell et al. (2016) and a 3-item *ToI* scale (Dweck et al., 1995) as a manipulation check. After the screen with the manipulation checks, participants encountered a screen instructing them to wait until the Sales Recruiter finished evaluating their work. After a 30-second delay, a message appeared on the computer screen indicating that the Sales Recruiter had completed the evaluation.

Participants then received the feedback valence manipulation and were randomly assigned to one of two outcome conditions. Whereas participants in the *success* condition received a sales pitch score of 5.5 out of 6.0, participants in the failure condition received a sales pitch score of 2.0 out of 6.0. Below this score, the scoring system (1.0 = the lowest possible score; 6.0 = the highest possible score) was displayed to ensure that participants knew and understood the scoring.

Participants were then presented with an on-screen message indicating that in addition to the numeric grade they received on the writing task, the sales recruiter had provided detailed comments about the participant's sales pitch. Each participant was presented with options regarding the additional feedback: (a) *Yes, I would like to see the recruiter's comments about my essay now*; or (b) *No thanks, I do not want to see the recruiter's comments about my essay*. This is where the default manipulation was introduced. In the *feedback-present default* condition, the "Yes" button was pre-selected (Fig. A3a); participants would have to take action to *not* receive the feedback, thereby creating a feedback avoidance measure. In the *feedback-absent* condition, the "No" button was pre-selected (Fig. A3b); participants would have to take action to *receive* the feedback, thereby creating a feedback seeking measure. In the *no default choice* control condition, neither default feedback option was pre-selected (Fig. A3c); participants had to select one of the available options themselves before they would be allowed to continue to the next screen.

Participants in all default manipulation conditions made their selection and then were asked to briefly indicate why they made this feedback choice. Participants then completed the additional measures regarding ITSA beliefs, improvement, utility of feedback, task difficulty, perceived comparison to other participants, effort, confidence in sales ability, resiliency, affect, coping ability, inclination to avoid feedback, perceived recommendation of the feedback, and perceived psychological costs and benefits of feedback.

Participants were thanked, debriefed, and paid for their time.



## CHAPTER 3. RESULTS

This section tests and reports the findings of the hypotheses. Chi-square tests were used to examine the effects of the manipulations on feedback receptivity. A series of t-tests were used to examine the effects of the manipulations on the other outcomes/mediators. Lastly, correlations were used to examine the relationship between the mediators and feedback receptivity. Tables A1-A3 lists the results of the t-tests, and Table A4 displays the results of the correlational analysis.

### 3.1. Main Effects of the Manipulations on Feedback Receptivity

In contrast with H1a, a chi-square analysis on default FE format yielded no significant effects ( $\chi^2 = .51, p = .78$ ). That is, participants were no more likely to receive feedback in the *feedback present* (92.9%), *feedback absent* (92.5%), or *no default* control (90.3%) conditions. In support of H2, a chi-square analysis revealed a significant main effect of feedback valence on feedback receptivity. Participants in the success condition (95.9%) were more likely to receive feedback than participants in the failure condition (88.1%); ( $\chi^2 = 6.63, p < .02$ ). In support of H3, a chi-square analysis showed that participants induced with an incremental mindset (95.5%) were more likely to receive feedback than participants induced with an entity mindset (88.3%); ( $\chi^2 = 5.21, p = .03$ ).

### 3.2. Interactions Between Feedback Receptivity and the Manipulations

A series of chi-square analyses were conducted to test the interaction between ITSA and feedback valence on feedback receptivity. In support of H4a, there was a significant interaction between ITSA and feedback valence on feedback receptivity. Among participants induced with a entity mindset, participants were less likely to receive feedback if they were in the failure condition (82.9%) than if they were in the success condition (93.3%) ( $\chi^2 = 3.84, p = .04$ ). However, among participants induced with a incremental mindset, participants were no more likely to receive feedback if they were in the failure condition (92.6%) or the success condition (98.6%) ( $\chi^2 = 3.23, p = .12$ ).

Failing to support support for H4b, a chi-square analysis did not show a significant interaction between feedback valence and default conditions ( $\chi^2 = 1.70, p = .28$ ). Participants in the failure, *feedback absent* conditions (88.9%) were no more likely to receive feedback than participants in the success, *feedback present* conditions (95.8%).

### 3.3. Effects of the Default Feedback Environment Manipulation

Failing to support H1b, a t-test showed that there was no significant difference in perceived recommendation of having feedback between participants in the *feedback present* ( $M = 2.01, SD = .2$ ) and *feedback absent* ( $M = 1.95, SD = .19$ ) default conditions;  $t(204) = -1.12, p = .26$ . Additional t-tests showed that there were no significant differences in any of the other mediating variables between participants in the *feedback present* and *feedback absent* default conditions. Furthermore, there were no significant differences found between the *feedback absent*, *feedback present*, and *no*

*default control* conditions. As a consequence, the following results are collapsed across default FE conditions.

### 3.4. Relationships Between Feedback Valence and the Mediating Variables

A series of t-tests were run to investigate the differences in the following mediators and feedback valence. In support of H9b, there was a significant difference in perceived psychological benefits of feedback between the participants in the success ( $M = 4.11, SD = 1.15$ ) and failure ( $M = 2.53, SD = 1.06$ ) conditions;  $t(297) = -12.36, p < .001$ . H6b was not supported, as there was no significant difference in affect between participants in the success ( $M = 3.33, SD = .62$ ) and failure conditions ( $M = 3.22, SD = .71$ );  $t(297) = -1.50, p = \text{n.s.}$  H7c was not supported as there was no significant difference in coping ability between participants in the success ( $M = 5.74, SD = .91$ ) and failure ( $M = 5.75, SD = 1.02$ ) conditions;  $t(297) = .124, p = \text{n.s.}$  And H8b was not supported as there was no significant difference in psychological costs between participants in the success ( $M = 1.87, SD = .86$ ) and failure ( $M = 2.01, SD = 1.11$ ) conditions;  $t(297) = 1.20, p = \text{n.s.}$

Though not hypothesized, there was a significant difference in perceived comparison between participants in the success ( $M = 4.56, SD = 1.09$ ) and failure ( $M = 3.07, SD = 1.02$ ) conditions;  $t(297) = -11.22, p < .001$ . Participants in the failure condition rated the task as more difficult ( $M = 3.79, SD = 1.42$ ) than participants in the success condition ( $M = 2.86, SD = 1.32$ );  $t(297) = 5.87, p < .001$ . Finally, participants in the failure condition had lower resiliency ( $M = 3.76, SD = .91$ ) than participants in the success condition ( $M = 3.42, SD = .96$ );  $t(297) = 3.08, p = .002$ .

### 3.5. Relationships Among the Mediating Variables

A series of t-tests were run to investigate the differences between the various mediators and ITSA. Though not hypothesized, there was a significant difference in perceived recommendation of feedback between participants with an incremental mindset ( $M = 3.88, SD = 2.00$ ) and entity mindset ( $M = 3.08, SD = 1.83$ );  $t(297) = -3.60, p < .001$ . There also was a significant difference in feelings of improvement between incremental ( $M = 5.70, SD = 1.30$ ) and entity mindsets ( $M = 5.28, SD = 1.41$ );  $t(297) = -2.17, p = .007$ .

The t-tests showed that there was no significant difference in utility of feedback between participants induced with an entity mindset ( $M = 5.62, SD = 1.36$ ) and an incremental mindset ( $M = 5.75, SD = 1.27$ );  $t(297) = -.86, p = \text{n.s.}$  There was no significant difference in coping ability between participants induced with an entity mindset ( $M = 5.82, SD = .97$ ) and an incremental mindset ( $M = 5.68, SD = .96$ );  $t(297) = 1.26, p = \text{n.s.}$  There was no significant difference in psychological costs between participants induced with an entity mindset ( $M = 1.87, SD = 1.05$ ) and an incremental mindset ( $M = 1.99, SD = .94$ );  $t(297) = -1.08, p = \text{n.s.}$  And there was no significant difference in psychological benefits between participants induced with an entity mindset ( $M = 3.33, SD = 1.51$ ) and an incremental mindset ( $M = 3.30, SD = 1.20$ );  $t(297) = .19, p = \text{n.s.}$

As is standard, we examined the relationship between both ITSA predictors and outcomes. Although we report both the ITSA manipulation and measure results, the ITSA measure was more sensitive and will be the main ITSA construct elaborated in the remainder of the results and in the discussion.

Correlations were run to investigate the relationships between the ITSA measure, feedback receptivity, and the other mediating variables. We found additional support for H3 such that the ITSA measure was significantly positively correlated with feedback receptivity;  $r = .23, p < .01$ . To the extent that participants adopted a more incremental mindset about selling ability, they were more receptive to feedback. In support of H5b, there was a significant positive correlation between mindset and utility;  $r = .24, p < .01$ . In support of H7b, there was a significant positive correlation between mindset and coping ability;  $r = .14, p < .05$ . In support of H8c, there was a significant negative correlation between mindsets and psychological costs;  $r = -.14, p < .05$ . We did not find support for H9c, as there was no significant correlation between mindset and psychological benefits;  $r = -.04, p = \text{n.s.}$  Though not hypothesized, there were significant positive correlations between mindset and improvement,  $r = .33, p < .01$ , perceived recommendation,  $r = .13, p < .05$  confidence in selling ability,  $r = .25, p < .01$ , and resiliency  $r = .16, p < .01$ .

#### 3.4. Relationships Between Feedback Receptivity and the Mediating Variables

Correlations were conducted to test the relationships between feedback receptivity and the mediating variables. Contrary to H1c, there was a significant negative correlation between feedback receptivity and perceived recommendation of the feedback;  $r = -.13, p < .05$ . The less participants thought that feedback was recommended, the greater their receptivity to it. In support of H5a, feedback receptivity was significantly positively correlated with utility;  $r = .28, p < .01$ . In support of H7a, feedback receptivity was significantly positively correlated with coping ability;  $r = .24, p < .01$ . In support of H8a,

feedback receptivity was significantly negatively correlated with psychological costs;  $r = -.23, p < .01$ . In support of H9a, feedback receptivity was significantly positively correlated with psychological benefits;  $r = .14, p < .05$ . We did not find support for H6a, as feedback receptivity was not significantly correlated with positive affect;  $r = .01, p = \text{n.s.}$

Though not hypothesized, feedback receptivity was significantly positively correlated with improvement;  $r = .13, p < .05$ , and perceived comparisons;  $r = .14, p < .05$ .

### 3.5. Relationships Between the Mediating Variables

Correlations were conducted to investigate the relationships between the mediating variables. In support of H7d, there was a significant positive correlation between coping ability and utility;  $r = .13, p < .05$ . Furthermore, in support of H9d, there was a significant positive correlation between utility and psychological benefits;  $r = .34, p < .01$ . We did not find support for H8d, as there was no significant correlation between psychological costs and utility;  $r = -.04, p = \text{n.s.}$

Though not hypothesized, feelings of improvement were significantly positively correlated with utility,  $r = .51, p < .01$ , coping ability,  $r = .21, p < .01$ , perceived recommendation,  $r = .13, p < .05$ , confidence,  $r = .25, p < .01$ , resiliency,  $r = .12, p < .05$ , and psychological benefits of feedback,  $r = .14, p < .05$ .

Utility was significantly positively correlated with perceived comparison ( $r = .13, p < .05$ ), perceived recommendation ( $r = .15, p < .01$ ), confidence ( $r = .24, p < .01$ ), and effort exerted ( $r = .17, p < .01$ ).

Coping ability was significantly positively correlated with positive affect,  $r = .42$ ,  $p < .01$ , confidence,  $r = .31$ ,  $p < .01$ , resiliency,  $r = .38$ ,  $p < .01$ . Coping ability was significantly negatively correlated with perceived recommendation,  $r = -.12$ ,  $p < .05$ , difficulty,  $r = -.13$ ,  $p < .05$ , and psychological costs,  $r = -.52$ ,  $p < .01$ .

Perceived comparison was significantly positively correlated with positive affect,  $r = .19$ ,  $p < .01$ , confidence,  $r = .35$ ,  $p < .01$ , effort exerted,  $r = .22$ ,  $p < .01$ , and psychological benefits,  $r = .51$ ,  $p < .01$ . Perceived comparison was significantly negatively correlated with difficulty,  $r = -.39$ ,  $p < .01$  and psychological costs,  $r = -.13$ ,  $p < .05$ . Perceived recommendation was significantly positively correlated with psychological costs,  $r = .23$ ,  $p < .01$ , and psychological benefits,  $r = .15$ ,  $p < .05$ .

Positive affect was significantly positively correlated with confidence,  $r = .34$ ,  $p < .01$ , resiliency,  $r = .33$ ,  $p < .01$ , and psychological benefits,  $r = .12$ ,  $p < .05$ . Positive affect was significantly negatively correlated with effort exerted ( $r = -.16$ ,  $p < .01$ ), difficulty,  $r = -.35$ ,  $p < .01$ , and psychological costs,  $r = -.39$ ,  $p < .01$ ,

Confidence was significantly positively correlated with resiliency,  $r = .43$ ,  $p < .01$ , and psychological benefits,  $r = .27$ ,  $p < .01$ . Confidence was significantly negatively correlated with difficulty,  $r = -.29$ ,  $p < .01$  and psychological costs,  $r = -.12$ ,  $p < .05$ . Effort exerted was significantly positively correlated with difficulty,  $r = .29$ ,  $p < .01$ , and psychological benefits,  $r = .22$ ,  $p < .01$ . Resiliency was significantly negatively correlated with psychological costs,  $r = -.31$ ,  $p < .01$ . Difficulty was significantly negatively correlated with psychological costs,  $r = .21$ ,  $p < .01$ , and significantly positively correlated with psychological benefits,  $r = -.21$ ,  $p < .01$ .

## CHAPTER 4. DISCUSSION AND CONCLUSION

The aim of this research was to determine the relative influence of motivated and unmotivated factors on feedback receptivity in a sales performance context. Our primary hypotheses were that feedback receptivity would be influenced by default FE format effects, performance outcome valence, and mindsets regarding selling ability. A secondary goal was to empirically disentangle feedback seeking behaviors from feedback avoidance behaviors.

Our research utilized theories of status quo bias and adherence to default choices from behavioral economics research (Löfgren, Martinsson, Hennlock, & Sterner 2012; Pichert & Katsikopoulos 2008; Thaler & Benartzi 2004) to examine default format as a potential unmotivated factor that may influence employee feedback receptivity. In addition, we examined mindsets and performance outcome valence as motivational factors that may affect feedback receptivity. In addition to these manipulated variables, we examined the effect of resiliency, coping ability, and perceived utility, benefits, costs, and implicit recommendation of feedback on feedback receptivity.

Overall, there were very high levels of feedback receptivity (92%). We believe that the default status may not have been strong enough to create an effect. However, the hypothesized effects of feedback valence mindset and their interaction on feedback receptivity were all supported. Participants who were induced with failure were less



receptive to feedback than participants who were induced with success. Furthermore, participants who were primed an incremental mindset were more receptive to feedback than participants with an entity mindset. Lastly, these main effects were qualified by a significant interaction, that is only among entity mindset participants did feedback valence have a significant influence on feedback receptivity (see Fig. A4).

Regarding the process items, participants who had an incremental mindset of selling ability were more likely to have higher coping ability and had greater perceived utility of the feedback. Participants who were in the success condition had higher perceived comparisons of ability and greater perceptions of the benefits of feedback; whereas participants in the failure condition had lower resiliency and perceived the sales task as more difficult. Additionally, this research showed that individuals are more receptive to feedback if it is high in perceived utility and psychological benefits, and less receptive to feedback that is perceived as costly to their self-esteem and psyche. Indeed, these results are consistent with extant research (Ackerman & Gross 2010; Brett & Atwater 2001; Cleveland, et al., 2007; London & Smither 2002; Webb, et al., 2013).

#### 4.1. Contributions and Implications

A primary intent of feedback systems is to improve employee productivity, and central to that initiative is the effective dissemination of performance evaluations. Is employee receptivity to feedback governed by organization-level accessibility or inaccessibility of feedback information? Or is feedback receptivity determined by individual factors, such as mindsets or actual performance? Answering these questions

may aid managers provide more effective feedback to their employees and increase performance and output.

Incremental mindset individuals could interpret opportunities to obtain feedback as implicit advice concerning how they might improve future performance. These results indicate that fostering an incremental mindset among employees increases feedback receptivity, and that individuals are generally more receptive to positive feedback than negative feedback.

These results suggest that motivational factors have a greater impact on employee feedback receptivity than unmotivated factors. In order to increase feedback receptivity, managers may strive to engender an incremental mindset among their employees, stress the productive utility of the feedback, and ensure that their employees have the necessary faculties to cope with the feedback information. However, the default feedback environment may still have an influence on employee feedback receptivity.

#### 4.2. Limitations

As noted above, it was surprising that feedback receptivity was so high. There are three reasons why we believe our participants indicated such high interest in feedback. First, the sales pitch task may not have been threatening enough to prompt feedback avoidance tendencies. Poor performance on this sales task would have no consequence on the participants' present or future employment opportunities. However, if the task or feedback could have threatened perceptions of each participant's own intelligence or abilities, there may have been a greater frequency of FABs (Anderson, 2003; Novell, et al., 2014; Sweeny & Miller, 2012; Sweeny, et al., 2010). Second, this sales pitch task

could be conceptualized as initial or early training in a new job role. Extant research has shown that feedback receptivity is influenced by job experience, such as, as tenure increases, propensity to seek or receive feedback decreases (Ashford & Cummings, 1985; Herold & Fedor, 2003). The novelty of the present sales pitch task may have initiated a “new employee” mindset thereby encouraging participants to be more receptive to feedback information. Third, anticipation of performing a second writing task may have confounded feedback receptivity rates. The introduction to the research study stated that participants may be asked to write one or more sales pitches and that they would have the option to review the sales recruiter’s comments before undertaking the second sales task. This statement may have added to the perceived utility of the initial feedback and caused participants to disproportionately opt to receive the feedback.

There are two reasons why we think the default FE format effect did not manifest. First, in the present study, participants only had to check a box in order to receive or not receive feedback information. Employees in a feedback-absent default FE may have to exert additional effort to obtain feedback by drafting an email to a supervisor or downloading and opening attachments in emails. Second, no research has examined that the extent to which feedback is perceived as recommended may have an effect on feedback receptivity. Though not hypothesized, there was a significant negative correlation between perceived recommendation of feedback and feedback receptivity ( $r = -.13, p = .027$ ). The more participants thought that feedback was recommended, the less receptive they were to it. Furthermore, participants who were primed with an incremental mindset were more likely to perceive feedback as recommended than entity-mindset

participants ( $M_s = 3.88$  vs.  $3.08$ ),  $t(297) = -3.601$ ,  $p < .01$ ). All of these reasons limited our ability to detect the hypothesized effects.

#### 4.3. Future Directions

Motivational factors have a significant effect on feedback receptivity, and future research could investigate additional situations where motivational states enhance or reduce performance. Additionally, future research could investigate situations where obtaining feedback in a feedback absent FE is more effortful, and where the task and feedback have greater applicability to the participants. Nevertheless, this work is a critical first step towards disentangling motivated and unmotivated factors that influence feedback receptivity in the workplace.

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<http://doi.org/10.1016/j.jcps.2015.06.008>

## APPENDIX

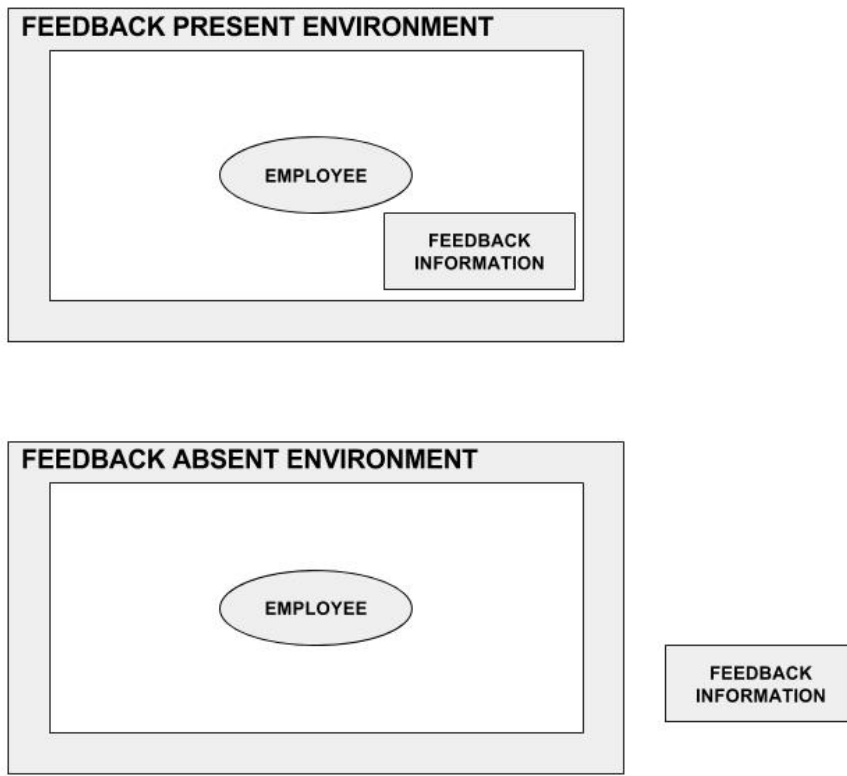


Figure A1. Default Feedback Environmental States

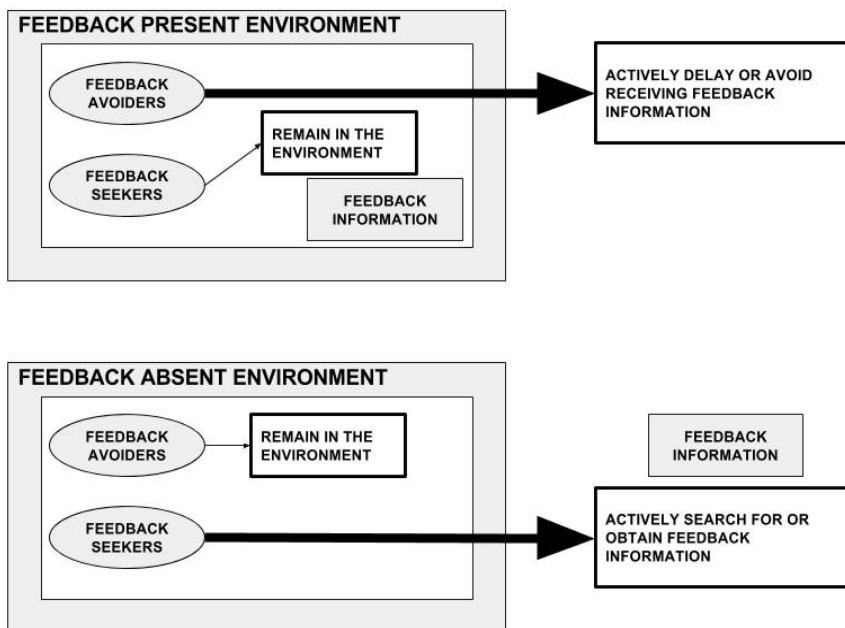


Figure A2. Default Feedback Environmental States

<input checked="" type="checkbox"/>	Yes, I would like to see the recruiter's comments about my sales pitch. (If you select this option, the comments will appear on your screen before the second sales task.)
<input type="checkbox"/>	No thanks, I do not want to see the recruiter's comments about my sales pitch. (If you select this option, you will not see the recruiter's comments.)

<input type="checkbox"/>	Yes, I would like to see the recruiter's comments about my sales pitch. (If you select this option, the comments will appear on your screen before the second sales task.)
<input checked="" type="checkbox"/>	No thanks, I do not want to see the recruiter's comments about my sales pitch. (If you select this option, you will not see the recruiter's comments.)

<input type="checkbox"/>	Yes, I would like to see the recruiter's comments about my sales pitch. (If you select this option, the comments will appear on your screen before the second sales task.)
<input type="checkbox"/>	No thanks, I do not want to see the recruiter's comments about my sales pitch. (If you select this option, you will not see the recruiter's comments.)

Figure A3. Default Feedback Options

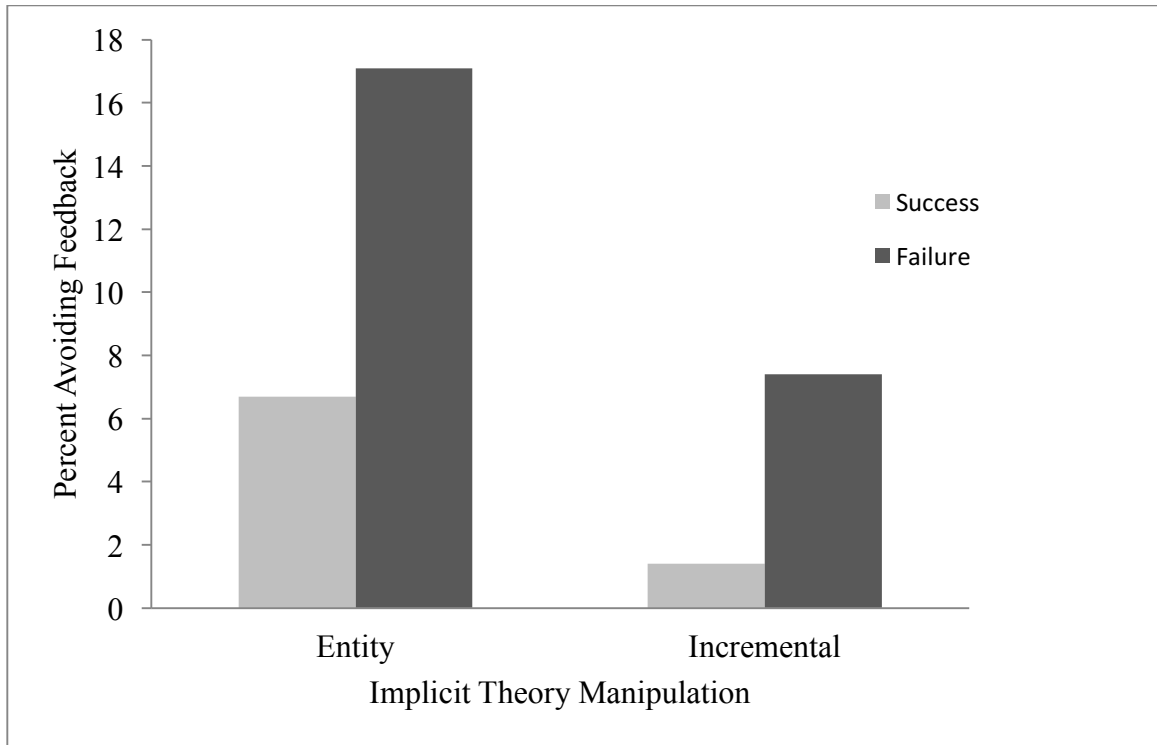


Figure A4. Main Effect of Feedback Valence and Implicit Theories Manipulation



Table A1. Effects of Implicit Theories Manipulation

<b>Item</b>	<b>Entity Mindset</b>	<b>Incremental Mindset</b>	<b><i>p</i></b>	<b>Hypothesized (Y/N)</b>	<b>Supported (Y/N)</b>
Perceived Comparison	3.90 (1.38)	3.73 (1.35)	n.s.	N	–
Effort	4.00 (1.49)	4.01 (1.55)	n.s.	N	–
Difficulty	3.30 (1.47)	3.35 (1.43)	n.s.	N	–
Utility	5.62 (1.36)	5.75 (1.27)	n.s.	Y	N
Resiliency	3.63 (.94)	3.55 (.95)	n.s.	N	–
Positive Affect	3.31 (.64)	3.24 (.69)	n.s.	N	–
Coping Ability	5.82 (.97)	5.68 (.96)	n.s.	Y	N
Confidence	3.49 (.85)	3.60 (.86)	n.s.	N	–
Perceived Recommendation of Feedback	3.08 (1.83)	3.88 (2.00)	< .001	N	Y
Feedback Avoidance	2.01 (.74)	2.07 (.71)	n.s.	N	N
Psychological Benefits	3.33 (1.51)	3.30 (1.20)	n.s.	Y	N
Psychological costs	1.87 (1.05)	1.99 (.94)	n.s.	Y	N

Note: Standard deviations are in parentheses below the means.

Table A2. Effects of Feedback Valence Manipulation

<b>Item</b>	<b>Failure</b>	<b>Success</b>	<b><i>p</i></b>	<b>Hypothesized (Y/N)</b>	<b>Supported (Y/N)</b>
Perceived Comparison	3.07 (1.12)	4.56 (1.09)	< .001	N	–
Effort	3.88 (1.49)	4.13 (1.55)	n.s.	N	–
Difficulty	3.79 (1.42)	2.86 (1.32)	< .001	N	–
Utility	5.59 (1.40)	5.79 (1.25)	n.s.	Y	N
Resiliency	3.76 (.91)	3.42 (.96)	.002	N	–
Positive Affect	3.22 (.71)	3.33 (.62)	n.s.	Y	N
Coping Ability	5.75 (1.02)	5.74 (.91)	n.s.	Y	N
Confidence	3.50 (.88)	3.60 (.83)	n.s.	N	–
Perceived Recommendation of Feedback	3.45 (1.99)	3.53 (1.94)	n.s.	Y	N
Feedback Avoidance	2.03 (.76)	2.05 (.70)	n.s.	N	N
Psychological Benefits	2.53 (1.06)	4.11 (1.15)	< .001	Y	Y
Psychological costs	2.01 (1.11)	1.87 (.86)	n.s.	Y	N

Table A3. Effects of Default Feedback Environment Manipulation

<b>Item</b>	<b>Feedback Absent Default</b>	<b>Default Choice Absent</b>	<b>Feedback Present Default</b>	<b><i>p</i></b>	<b>Hypothesized (Y/N)</b>	<b>Supported (Y/N)</b>
Perceived Comparison	3.77 (1.41)	3.81 (1.30)	3.86 (1.39)	n.s.	N	–
Effort	4.02 (1.50)	4.06 (1.44)	3.93 (1.62)	n.s.	N	–
Difficulty	3.36 (1.55)	3.39 (1.44)	3.23 (1.34)	n.s.	N	–
Utility	5.65 (1.23)	5.70 (1.41)	5.72 (1.63)	n.s.	Y	N
Resiliency	3.69 (.97)	3.53 (.96)	3.54 (.90)	n.s.	N	–
Positive Affect	3.31 (.67)	3.24 (.64)	3.26 (.68)	n.s.	Y	N
Coping Ability	5.76 (.94)	5.70 (1.00)	5.79 (.98)	n.s.	Y	N
Confidence	3.65 (.84)	3.49 (.89)	3.48 (.83)	n.s.	N	–
Perceived Recommendation of Feedback	3.34 (1.95)	3.49 (1.93)	3.65 (2.00)	n.s.	Y	N
Feedback Avoidance	1.92 (.68)	2.11 (.74)	2.09 (.74)	n.s.	N	N
Psychological Benefits	3.36 (1.48)	3.32 (1.27)	3.26 (1.31)	n.s.	Y	N
Psychological costs	1.90 (.91)	2.12 (1.20)	1.80 (.85)	n.s.	Y	N

Table A4. Correlation Matrix of Factors Influencing Feedback Receptivity Behaviors

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Feedback Receptivity	1																
2. Default Condition	.01	1															
3. Feedback Valence Condition	.15*	-.01	1														
4. ITSA Manipulation Condition	.13*	.01	-.04	1													
5. ITSA Measure	.23**	-.02	-.05	.47**	1												
6. Improvement	.13*	-.03	-.02	.16**	.33**	1											
7. Utility	.28**	.02	.08	.05	.24**	.51**	1										
8. Coping Ability	.24**	.01	-.01	-.07	.14*	.21**	.13*	1									
9. Perceived Comparison	.14*	.03	.55**	-.06	.04	.02	.13*	.1	1								
10. Perceived Recommendation	-.19*	.07	.02	.21**	.13*	.13*	.15**	-.12*	-.01	1							
11. Positive Affect	.01	-.03	.09	-.06	.03	.06	0	.42**	.19**	-.03	1						
12. Confidence	.03	-.08	.05	.07	.25**	.25**	.24**	.31**	.35**	.08	.34**	1					
13. Effort Exerted	.1	-.02	.08	0	0	.1	.17**	-.05	.22**	-.07	-.16**	-.1	1				
14. Resiliency	-.01	-.07	-.18**	-.04	.16**	.12*	.08	.38**	.06	-.05	.33**	.43**	-.06	1			
15. Difficulty	-.04	-.04	-.32**	.02	-.05	-.01	-.04	-.13*	-.39**	0.07	-.35**	-.29**	.29**	-.1	1		
16. Psychological Costs	-.23**	-.04	-.07	.06	-.14*	-.04	-.04	-.52**	-.13*	.23**	-.39**	-.12*	.06	-.31**	.21**	1	
17. Psychological Benefits	.14*	-.03	.58**	-.01	-.04	.14*	.34**	0	.51**	.15*	.12*	.27**	.22**	-.03	-.21**	.1	1

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\*. Correlation is significant at the 0.01 level (2-tailed).

Table A5. Hypotheses and Test Statistics

Hypotheses		Test Statistic			<i>p</i>	Support
		$\chi^2$	<i>t</i>	<i>r</i>	–	Y/N
H1a	<i>The default feedback environment will influence feedback receptivity such that, more people in the feedback present default condition will receive feedback than in the feedback absent default condition.</i>	.51	–	–	n.s.	N
H1b	<i>The default environment will influence perceived recommendation of having feedback, such that people in the feedback present default condition will perceive feedback as more recommended than in the feedback absent default condition.</i>	–	-1.12	–	n.s.	N
H1c	<i>The more a person perceives the feedback to be recommended, the more receptive to feedback they will be.</i>		–	-.13	< .05	N*
H2	<i>Feedback valence will influence receptivity to feedback such that more people in the positive feedback condition will receive feedback than in the negative feedback condition.</i>	6.63	–	–	< .02	Y
H3	<i>Implicit theories will influence receptivity to feedback such that more people in the incremental mindset condition will receive feedback than in the entity mindset condition.</i>	5.21	–	–	.03	Y
H4a	<i>There will be a two-way interaction between mindset and feedback valence such only that people with a entity mindset (and not a incremental mindset) should be less receptive to negative feedback than positive feedback.</i>	3.84	–	–	.04	Y
H4b	<i>Default condition will exacerbate the effect of feedback valence such that feedback receptivity should be highest among people who expect positive feedback and have a feedback present default FE and should be lowest among people who expect negative feedback and have a feedback absent default FE.</i>	1.70	–	–	n.s.	N
H4c	<i>The interaction in H4b will be further qualified by mindset, such that it holds for people with a entity mindset but not a incremental mindset.</i>	1.35	–	–	n.s.	N
H5a	<i>Perceived utility of feedback should be positively correlated with feedback receptivity.</i>	–	–	.28	< .01	Y
H5b	<i>There will be a positive correlation between mindset and feedback perceived utility, such that people with an incremental mindset (and not an entity mindset) should be more likely to find feedback useful.</i>	–	–	.24	< .01	Y
H6a	<i>There will be a positive correlation between affect and feedback receptivity, such that people with more positive affect will be more receptive to feedback.</i>	–	–	.01	n.s.	N

Table A5. Continued

Hypotheses		Test Statistic			<i>p</i>	Support
		$\chi^2$	<i>t</i>	<i>r</i>	–	Y/N
H6b	<i>There will be a positive correlation between affect and feedback valence, such that people who expect positive feedback will have more positive affect.</i>	–	–	–	n.s.	N
H7a	<i>There will be a positive correlation between coping ability and feedback receptivity, such that people with higher coping ability will be more receptive to feedback.</i>	–	–	.24	< .01	Y
H7b	<i>There will be a positive correlation between coping ability and mindset, such that people with a incremental mindset (versus a entity mindset) will have higher coping ability.</i>	–	–	.14	< .05	Y
H7c	<i>There will be a positive correlation between coping ability and feedback valence, such that people who expect positive feedback should have higher coping ability.</i>	–	–		n.s.	N
H7d	<i>There will be a positive correlation between coping ability and utility, such that people with a higher coping ability will also find feedback higher in utility.</i>	–	–	.13	< .05	Y
H8a	<i>There will be a negative correlation between psychological costs and feedback receptivity.</i>	–	–	-.23	< .01	Y
H8b	<i>Feedback valence will influence perceived psychological costs of feedback, such that people in the failure condition will view feedback as more costly than participants in the success condition.</i>	–	1.20	–	n.s.	N
H8c	<i>There will be a negative correlation between psychological costs and mindsets, such that people with an incremental mindset will be less likely (compared to people with entity mindsets) to perceive feedback as psychologically costly.</i>	–	–	-.14	< .05	Y
H8d	<i>There will be a negative correlation between psychological costs and feedback utility, such that as perceived feedback utility increases, psychological cost decreases.</i>	–	–	-.04	n.s.	N
H9a	<i>There will be a positive correlation between psychological benefits and feedback receptivity.</i>	–	–	.14	< .05	Y
H9b	<i>Feedback valence will influence perceived psychological benefits of feedback, such that people in the failure condition will view feedback as more beneficial than participants in the success condition.</i>	–	-12.36	–	< .001	Y
H9c	<i>There will be a positive correlation between psychological benefits and mindsets, such that people with an incremental mindset will be more likely (compared to people with an entity mindset) to perceive feedback as beneficial.</i>	–	–	-.04	n.s.	N
H9d	<i>There will be a positive correlation between psychological benefits and feedback utility, such that as perceived utility increases, benefits of the feedback also increase.</i>	–	–	.34	< .01	Y