FEEDBACK ORIENTATION: THE DEVELOPMENT AND VALIDATION OF A
MULTIDIMENSIONAL MEASURE

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FEEDBACK ORIENTATION: THE DEVELOPMENT AND VALIDATION OF A
MULTIDIMENSIONAL MEASURE

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Dissertation

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Feedback orientation, a construct proposed by London and Smither (2002), is an individual’s overall receptivity to feedback. The current research developed and validated a multidimensional measure of feedback orientation. Exploratory and confirmatory factor analyses suggested that four dimensions best capture Feedback Orientation: utility, accountability, social awareness, and feedback self-efficacy. Substantial support for the reliability and validity of each of these dimensions was found across two distinct samples. This new instrument will be a valuable tool for researchers and practitioners to better understand individual differences in the feedback process.
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CHAPTER I

INTRODUCTION

Constant change within work environments has created a new emphasis on continuous learning. As employees adapt to a changing environment and strive to continually learn, feedback becomes especially important. Feedback is defined as information based on prior performance that can be used to regulate or improve future performance. Employees obtain feedback from a number of organizational sources, including other individuals (supervisors, coworkers, customers, subordinates), the task environment, and from their own feelings and observations (Ilgen, Fisher, & Taylor, 1979). Feedback from others may be delivered in an oral or written manner and may be provided informally or more formally as part of a performance appraisal system.

Effectively utilizing feedback can provide a competitive advantage for individuals as well as organizations as they compete in complex and changing work environments. Feedback can improve learning, motivation, and ultimately performance (Ilgen et al., 1979; Kluger & DeNisi, 1996; London, 2003) by reducing uncertainty, providing important information about goal progress and importance, re-affirming individuals’ beliefs about themselves and their performance, and increasing feelings of competence (Ashford & Cummings, 1983; Bernichon, Cook, & Brown, 2003; London, 2003).
Unfortunately, there are a number of obstacles to the effective use of feedback (London, 2003). Organizations may not have systems in place that encourage the use of feedback or they may have an unsupportive feedback environment. Supervisors or coworkers may feel uncomfortable providing feedback or may provide inappropriate feedback. Furthermore, even if feedback is provided and it is useful, the individuals receiving the feedback may be unreceptive or unresponsive to it.

The current research focuses on the important impact that feedback recipients have on the feedback process. Understanding how individual differences in feedback recipients may influence the feedback process can contribute to the effective use of feedback within an organization. Unfortunately, the available research on individual differences in the feedback process focuses on very broad personality characteristics and has revealed inconsistent findings. To address the limitations of current research on individual differences, a new measure of a feedback-specific individual difference variable is developed and validated.

Individual Differences in the Feedback Process

Traditionally, feedback recipients have been characterized as passive participants in the feedback process. However, in a seminal work by Ashford and Cummings (1983), it was suggested that feedback recipients play a more active role. In this more active role, feedback recipients shape their feedback environments by seeking feedback, generating their own feedback, processing information, and combining information from multiple sources. Viewing feedback recipients as active participants in the feedback process (who
can influence the effectiveness of the feedback process) highlights the need to understand the role of individual differences in shaping the feedback process.

In an early feedback model developed by Ilgen, Fisher, and Taylor (1979), individual differences were shown to affect the four stages of feedback processing: perception, acceptance, desire to respond, and intended response. Reviewing the literature on individual differences, Ilgen et al. (1979) identified locus of control, need for achievement, and self-esteem as important individual level variables. Although research on individual differences in the feedback process has received attention since the late seventies, this research has revealed inconsistent relationships between these individual difference variables and feedback relevant outcomes. These inconsistent relationships may be a result of the broad nature of the individual differences explored. As demonstrated by Azjen and Fishbein (1997), using broad variables to predict specific behaviors can lead to weak findings or inconsistent relationships. Herold and Fedor (1998) identified other problems with the literature on individual differences in the feedback process besides the focus on variables that are too broad. They noted the lack of a strong theory identifying which individual differences are most important and when they are most important. They also asserted that the literature has focused on a limited set of individual differences (e.g., self-esteem).

To address these limitations, Herold, Parsons, and Rensvold (1996) developed an individual difference measure specific to feedback. This measure was focused on individuals’ preferences for internal and external feedback as well as an individual’s ability to self-generate feedback. Herold et al. (1996) provided very little theoretical
support for the development of these dimensions and the measure does not seem to adequately capture individual differences that may influence the feedback process. The literature suggests that attitudes towards feedback, self-efficacy, self-esteem, locus of control, learning goal orientation, need for achievement, and public self-consciousness can also influence the feedback process. Thus, the domain of individual differences affecting the feedback process is larger than just an individual’s feedback propensity as proposed by Herold et al. (1996).

Recently, in an extension of Herold et al.’s perspective, London and Smither (2002) proposed a new feedback-specific individual difference variable that seems to more adequately capture the domain of potential individual differences influencing the feedback process. This more comprehensive construct proposed by London and Smither (2002) is called feedback orientation. Feedback orientation is “an individual’s overall receptivity to feedback” (p. 81). Feedback orientation is proposed to have a number of dimensions including liking feedback, behavioral propensity to seek feedback, cognitive propensity to process feedback mindfully and deeply, sensitivity to others’ views of oneself, belief in the value of feedback, and feeling accountable to act on feedback. Feedback orientation is also proposed to be a malleable characteristic that can be changed in the medium term (e.g., 6 to 12 months).

The Present Study

The goal of the current study is to comprehensively define the dimensions of feedback orientation based on the literature, and to develop and validate a multidimensional measure of it. Developing an individual difference measure more
targeted to the area of feedback such as this, promotes a greater understanding of how individual differences influence the feedback process and facilitates better prediction of feedback relevant behavior. Furthermore, from a practical perspective, developing a measure of feedback orientation helps organizations assess their employees’ receptiveness to feedback. The degree to which employees are receptive to feedback has the potential to impact the effectiveness of the feedback process, a process that is central to performance management (e.g., performance appraisal, developmental activities, etc.). Because feedback orientation is proposed to be a more malleable individual characteristic than other variables explored, such as self-esteem or locus of control, organizations should be able to influence the feedback orientations of their employees.

To develop a reliable and valid measure of feedback orientation, a number of steps critical to scale development were followed in the current study (Spector, 1992). First, literature on individual differences in the feedback process was reviewed in detail. A thorough literature review is important because “prior conceptual definitions and operationalizations of the construct can provide a solid foundation” for the continuing development of a construct (Spector, 1992, p. 14). The literature reviewed contributes to the content validity of the construct by ensuring that the domain of potential individual differences is adequately captured. Based on this literature review, a comprehensive, multidimensional definition of feedback orientation was derived and items were written to reflect each dimension. These items were then pilot tested to ensure that they were clear and interpreted as intended. Revisions to the scale were made as necessary based on the results of two pilot studies.
After revisions to the scale were made, the measure was then administered to a large number of working students. These data were examined to determine the reliability of the scale and the validity of the construct. Validation of a measure is a critical step in measurement development that is often overlooked (Hinkin, 1995). Simply finding support for the proposed dimensions using exploratory and confirmatory factor analysis is not sufficient to establish construct validity. It is essential to demonstrate how the construct fits within a network of relations between it and other constructs (Spector, 1992). Demonstrating that dimensions of feedback orientation are more strongly related to theoretically similar constructs provides evidence of convergent validity. Showing that dimensions of feedback orientation are not strongly related to theoretically dissimilar constructs provides evidence of discriminant validity. Demonstrating that dimensions of feedback orientation predict outcomes that make sense theoretically helps establish criterion-related validity. This study developed a number of hypotheses regarding the relationship between the dimensions of feedback orientation and a number of other variables within a nomological network to demonstrate convergent, discriminant, and criterion-related validity. In addition, this study explored the ability of the feedback orientation dimensions to uniquely predict outcomes and to predict these outcomes above and beyond more general individual difference variables. A second organizational sample was then used to replicate a subset of the hypotheses tested with the working student sample, exploring the extent to which results generalized.

In review, feedback orientation is hypothesized to be an individual difference construct specific to the feedback process that reflects an individual’s overall receptivity
to feedback. The goal of the current research is to comprehensively define this construct and to develop and validate a multidimensional instrument to measure it. A reliable and valid measure of feedback orientation is useful for understanding individual differences in the feedback process, predicting an individual’s behavior, and identifying areas of improvement for recipients of feedback.

The next chapter provides an overview of the relevant feedback literature. This literature review served as an important theoretical guide in the development of dimensions. It includes a careful examination of previous research on individual differences in the feedback process. In addition, based on this literature review, feedback orientation is thoroughly defined as a multidimensional construct and a number of hypotheses are proposed. The extent to which these hypotheses are supported is instrumental to establishing the validity of this multidimensional construct. Chapter three describes the process by which items were written and the methods and results of two pilot studies used to explore dimensionality and reliability. Chapter four describes the methods and results of two focal studies that were used to explore the dimensionality, reliability, and validity of the Feedback Orientations Scale. Chapter five provides a discussion of results.
CHAPTER II

LITERATURE REVIEW

Feedback is critical for an organization’s success in a complex and changing business environment that demands adaptation and continuous learning. Research has demonstrated that feedback can have a profound influence on learning, motivation, and ultimately performance (Ilgen et al., 1979; Kluger & DeNisi, 1996; London, 2003). As noted by Herold and Fedor (1998), almost every theory of human performance (excluding those from the behaviorist perspective) recognizes either explicitly or implicitly the importance of the feedback process. Goal setting theory, control theory, and social cognitive theory are three recent theories of human performance/motivation that illustrate the central role of feedback in self-regulating one’s goal progress and managing performance.

*Goal setting theory* focuses specifically on the types of goals that will lead to better performance and factors that influence an individual’s goal setting (Locke & Latham, 1990; Locke & Latham, 2002). This line of research has found that specific, difficult goals tend to lead to better performance than vague, easy, do-your-best goals, or no goals only when the goals are combined with feedback. These types of goals enhance performance because they focus an individual’s attention and effort towards a specific
goal while increasing the feedback provides some direction for individual’s effort (Donovan, 2001).

Although goal setting theory strongly implies that goal relevant feedback is instrumental in self-regulating one’s performance, it is control theory that has attempted to explain how goals and feedback contribute to the dynamic process of self-regulation. The control theory model of motivation focuses on obtaining and interpreting environmental feedback to regulate one’s goal directed behavior (Carver & Scheier, 1998; Donovan, 2001; Kernan & Lord, 1991). Perceived discrepancies between one’s current state and desired state can be detected through a feedback process. Discrepancies found through the feedback process can lead to cognitive, behavioral, and affective reactions. Cognitively, an individual may re-evaluate the importance of the goal. Behaviorally, an individual may increase effort to become closer to the goal. Affectively, an individual may experience positive or negative emotions, which may influence his or her confidence.

Social cognitive theory provides a similar description of the self-regulation process using slightly different terminology. According to social cognitive theory, after a goal is established there are three psychological subfunctions that are instrumental in self-monitoring: self-observation, self-evaluation, and self-reactions (Bandura, 1991; Donovan, 2001). Self-observation involves gathering feedback regarding one’s current behavior or performance on the task. Self-evaluation involves identifying the discrepancy between one’s current state and his or her goal state based on the feedback. Finally, self-reactions refer to the affective, behavioral, and cognitive reactions. Self-
efficacy, an individual’s confidence in his or her ability to do a task, affects the processes of self-observation, self-evaluation, and self-reactions (Bandura, 1991).

Reviewing each of these theories makes evident the role of feedback in human learning, motivation, and performance. Feedback plays a central role in learning and self-regulating one’s goal progress. In addition, feedback can elicit cognitive, behavioral, and affective reactions that can facilitate goal attainment. Thus, effectively using feedback can be a source of competitive advantage for an organization.

Unfortunately, using feedback effectively is not any easy undertaking. In a meta-analysis of the feedback-performance relationship by Kluger and DeNisi (1996), it was found that while the overall average effect size was positive, one-third of the effects of feedback were negative. These negative effects of feedback may be influenced by the nature of the feedback environment, the source, the message, and the recipient. The current study focuses on the important role of the recipient in the feedback process.

Having a thorough understanding of how employees obtain, interpret, and use feedback is instrumental in effectively using feedback to improve performance. In a seminal work by Ilgen et al. (1979), a basic model of the feedback process was developed. According to this model, there are four stages of the feedback process: perception of feedback, acceptance of feedback, desire to respond to feedback, and intention to respond. Each of these stages can be affected by both environmental factors and individual differences. The importance of understanding the influence of individual differences on the feedback process is highlighted by the perspective that individuals are active rather than passive participants in this process. As active participants, individuals
can shape the feedback process by seeking feedback, generating their own feedback, processing information, and combining information from multiple sources (Ashford & Cummings, 1983).

Research on individual differences in the feedback process has identified a number of variables that may influence how an individual perceives, accepts, and responds to feedback. These variables include self-esteem, need for achievement, learning goal orientation, public self-consciousness, and locus of control (Bernichon, Cook, & Brown, 2003; Brown, Ganesan, & Challagalla, 2001; Fedor & Carver, 2000; Ilgen et al., 1979; Levy, Albright, Cawley, & Williams, 1995; VandeWalle, 2003). Although this research provides some insight into the active role individuals have in the feedback process, Herold and Fedor (1998) noted that there are several problems with the available research on individual differences in the feedback process. First, there is a lack of strong theory identifying those individual differences that are most important and when they are most important. Second, the literature has focused on a limited set of individual differences. In particular, self-esteem and self-efficacy have received a lot of attention. Third, those individual differences that have been explored are often very broad and thus inadequate for predicting the more specific behaviors related to the feedback process. As found by Ajzen and Fishbein (1977), using broad variables (e.g., self-esteem) to predict domain specific behaviors (e.g., feedback seeking) can lead to weak and inconsistent relationships. Thus, the general individual difference variables that have been examined in the feedback literature may exhibit weak or inconsistent
relationships with feedback relevant outcomes due to a lack of correspondence between the level of specificity of predictors and criteria.

As noted by Herold and Fedor (1998), an important step in the feedback literature to address these limitations would be to develop individual difference variables specific to the area of feedback. Variables more specific to this area that are theoretically derived may produce stronger and more consistent relationships with feedback relevant outcomes (Azjen & Fishbein, 1977). The goal of the current study is to comprehensively define, develop, and validate a multidimensional measure of a feedback specific individual difference variable called feedback orientation.

Feedback-specific Individual Differences

Understanding the strengths and limitations of other research looking at feedback-specific individual differences is essential to developing this new construct of feedback orientation (Spector, 1992). To date however, only one other feedback-specific individual difference has been studied. This construct is called feedback propensity and it was developed by Herold et al. (1996). The feedback propensity scale was intended to measure an individual’s “preference for internally mediated versus externally mediated feedback” (p. 7). The authors asserted that understanding individuals’ propensities to like, seek, and use feedback from different sources would lead to a better understanding of the links between feedback, motivation, learning, and performance. To measure individual differences in feedback propensities, the authors developed and validated an instrument that is composed of three factors: external propensity (an individual’s preference for and trust in feedback that comes from an outside source), internal
propensity (an individual’s preference for and trust in self-generated feedback), and internal ability for feedback (an individual’s ability to self-generate accurate feedback). Authors of this measure provided some empirical support for these dimensions (Herold et al. 1996) and suggested that this scale can be used to determine an individual’s focus on self-generated versus other generated feedback and an individual’s tendency to evaluate a situation’s feedback potential. Research has found that internal feedback propensity is negatively related to performance on novel tasks and external feedback propensity is positively related to training performance and feedback seeking (Herold & Fedor, 2003).

While the development of an individual difference scale such as this fills a gap in the feedback literature, it is narrowly focused and does not seem to capture all of the interests of researchers. When developing this scale, there was little theoretical explanation as to why authors chose to focus on feedback preferences in particular. Furthermore, the feedback literature seems to suggest that there are more factors than just an individual’s preference for internal and external feedback that can affect how an individual engages in the feedback process. For example, reviewing research on other individual differences such as self-esteem, self-efficacy, locus of control, learning goal orientation, public-self consciousness, and need for achievement suggests that there are a number of different individual characteristics influencing the feedback process. In addition, reviewing basic research on feedback reveals that an individual’s attitudes towards feedback and his or her beliefs about its usefulness can also predict how an individual will respond to feedback. Unfortunately, further development of this scale by the authors did not expand the domain of individual differences measured by this scale.
but rather further divided the original three dimensions into six dimensions (Herold & Fedor, 1998). These six dimensions were external propensity for neutral/positive feedback, external propensity for negative feedback, internal feedback propensity, self-reinforcement propensity, internal feedback ability, and internal feedback confidence. The practical utility of having six dimensions is unclear, as the research using this scale tends to focus on the original three dimensions.

Overall, the narrow focus of this scale may be contributing to its limited use among researchers. Herold et al. (1996) suggested that this scale can be used to determine an individual’s focus on self-generated versus other generated feedback and an individual’s tendency to evaluate a situation’s feedback potential. The authors also noted that awareness of this information could be used to match individuals to a feedback environment that fits their preferences. However, reviewing the published research on feedback propensities reveals that very few researchers outside its developers have utilized this scale (Herold & Fedor, 1998; Herold & Fedor, 2003; Renn & Fedor, 2001). This scarcity of research, along with the problems outlined in this section and the call by London and Smither (2002) for a validated measure of feedback orientation, suggest that this scale is not fulfilling researchers’ needs for investigating individual differences in the feedback process.

The Definition of Feedback Orientation

Given the narrow focus of Herold and Fedor’s (1998) scale and the availability of new literature on individual differences in the feedback literature, there is need for further identification of feedback-specific individual differences. The current study
comprehensively defines and develops and validates a measure of a recently proposed individual difference construct called Feedback Orientation (London & Smither, 2002). Feedback Orientation is a semi-malleable individual difference construct that is defined as “an individual’s overall receptivity to feedback” (p. 81). An individual’s feedback orientation is expected to influence all aspects of the feedback process and have important implications for performance management.

Placing feedback orientation within a broad nomological network furthers our understanding of the nature of this construct (see Figure 1). This conceptual model proposes that there are two broad categories of antecedents that are related to the development of a feedback orientation: situational factors and individual factors. For example, situational factors may include more proximal aspects of the situation such as the feedback environment or more distal aspects such as the organization’s overall culture. Other situational factors that may be important include the structure of the organization’s performance management system, the prevalence of politics, and the leader-member exchange relationship. Individual factors that may be related to the development of a feedback orientation include the individual’s self-motives (e.g., self-verification vs. self-enhancement, learning vs. performance orientation), demographic factors (e.g., age, gender), and personality characteristics.

In addition to exploring potential antecedents of feedback orientation, this model also proposes some possible consequences. These consequences are expected to relate to feedback orientation due to their feedback relevant nature. Potential consequences may
include feedback seeking, improved performance, small self-other discrepancies in 360 performance ratings, role clarity, leadership, political skill, and participation in developmental activities. This conceptual model is not only beneficial to understanding how individuals develop a feedback orientation and the impact that feedback orientation can have on important work related variables, but it is also instrumental in guiding the investigation into the validity of this construct and its dimensions.
Figure 1

Nomological Network: Potential Antecedents and Consequences of Feedback Orientation
The Dimensionality of Feedback Orientation

London and Smither (2002) propose that feedback orientation is composed of six dimensions, which together determine an individual’s overall receptivity to feedback. These dimensions are:

“(1) liking feedback (i.e., an overall positive affect toward feedback and an absence, or low level of evaluation apprehension); (2) behavioral propensity to seek feedback (Ashford & Black, 1996; Ashford & Tsui, 1991); (3) cognitive propensity to process feedback mindfully and deeply; (4) sensitivity to other’s view of oneself [similar to the concept of public self-consciousness (Levy, Albright, Cawley, & Williams, 1995) and to external propensity (Herold, Parsons, & Rensvold, 1996)]; (5) a belief in the value of feedback—that it offers insights that may help the recipient become more effective and that actions taken in response to feedback can enhance personal effectiveness (Bandura, 1982); and (6) feeling accountable to act on the feedback.” (London & Smither, 2002, p. 83)

The six dimensions of feedback orientation proposed here are almost entirely based on the dimensions proposed by London and Smither (2002). However, one of the original dimensions proposed by London and Smither (2002) has been excluded and another has emerged based on the literature review that follows. The dimension of London and Smither that has been excluded is the “behavioral propensity to seek feedback.” The reason for excluding this dimension is that it is more likely an outcome of feedback orientation than a dimension of it. The new dimension of feedback self-efficacy emerged based on studies providing evidence of the influence of self-efficacy and self-esteem on
the feedback process. The resulting six dimensions that I propose are defensiveness, utility, accountability, social awareness, feedback self-efficacy, and feedback processing (see Figure 2 for the hypothesized factor structure).
Figure 2
Hypothesized Factor Structure
These dimensions of feedback orientation may influence different stages of the feedback process identified by Ilgen et al. (1979). For example, in the first stage of perception, social awareness and perceptions of utility may lead to a greater likelihood of perceiving feedback. In the second stage of acceptance, defensiveness and feedback processing may affect an individual’s willingness to accept and process feedback. Finally, in the last two stages, individuals who have greater feedback self-efficacy and who feel more accountable for responding to feedback may be more likely to have the desire and the intention to make changes in their behavior based on the feedback.

To demonstrate the validity of these different dimensions and their utility for understanding individual differences in the feedback process and predicting important work outcomes, two steps were taken in this research. First, convergent and discriminant validity was investigated. Examination of these types of validity helps establish that the scale and its dimensions are measuring what they are intended to measure. After it was established that the measure is effectively capturing feedback orientation, the next step was to explore criterion-related validity. Examination of this type of validity helps demonstrate the usefulness of this scale and its dimensions in predicting important work related outcomes.

The current section focuses on the definition of dimensions and hypotheses related to convergent and discriminant validity. The dimensions of feedback orientation are defined in detail, tying them back to the feedback literature. This discussion of the literature demonstrates the importance of including each of these dimensions to adequately capture the domain of individual differences in the feedback process.
Hypotheses are made regarding the relationships of each of these dimensions with other constructs to demonstrate convergent and discriminant validity. See Table 1. The first column provides a list of dimensions and their definitions. The second column depicts variables that are expected to relate to each of the dimensions. Support for these relationships provides evidence of convergent validity. The third column lists constructs that are expected to be unrelated to each of the dimensions. These variables provide discriminant validity evidence. Together this evidence of convergent and discriminant validity is used to demonstrate that these dimensions are measuring what they are intended to measure.
Table 1

Summary of Feedback Orientation Dimensions and Additional Variables Used to Demonstrate Convergent and Discriminant Validity

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Convergent Validity</th>
<th>Discriminant Validity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defensiveness: An individual’s tendency</td>
<td>Fear of Negative Evaluation (1)</td>
<td>Job Involvement (3)</td>
</tr>
<tr>
<td>to dislike receiving feedback and to</td>
<td>Feedback Delivery (2)</td>
<td></td>
</tr>
<tr>
<td>react to it negatively</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utility: An individual’s tendency to</td>
<td>Job Involvement (4)</td>
<td>Fear of Negative Evaluation (7)</td>
</tr>
<tr>
<td>believe that feedback is instrumental in</td>
<td>Feedback Credibility (5) and Quality (6)</td>
<td></td>
</tr>
<tr>
<td>achieving goals or obtaining desired</td>
<td></td>
<td></td>
</tr>
<tr>
<td>outcomes at work</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accountability: An individual’s tendency</td>
<td>Protestant Work Ethic (8)</td>
<td>Public Self-Consciousness (10)</td>
</tr>
<tr>
<td>to feel a sense of obligation to act on</td>
<td>Locus of Control (9)</td>
<td></td>
</tr>
<tr>
<td>feedback.</td>
<td></td>
<td></td>
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<tr>
<td>Social Awareness: An individual’s</td>
<td>Public Self-Consciousness (11)</td>
<td>General Self-Efficacy (13)</td>
</tr>
<tr>
<td>tendency to use feedback to be aware</td>
<td>Social Desirability (12)</td>
<td></td>
</tr>
<tr>
<td>of other’s views of oneself and to be</td>
<td></td>
<td></td>
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<tr>
<td>sensitive to these views</td>
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<tr>
<td>tendency to have confidence in dealing</td>
<td>Locus of Control (15)</td>
<td></td>
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<tr>
<td>with feedback.</td>
<td></td>
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<tr>
<td>Feedback Processing: An individual’s</td>
<td>Need for Cognition (17)</td>
<td>Fear of Negative Evaluation (19)</td>
</tr>
<tr>
<td>tendency to spend time processing and</td>
<td>Job involvement (18)</td>
<td></td>
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<tr>
<td>thinking about feedback</td>
<td></td>
<td></td>
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<tr>
<td>Feedback Orientation: An individual’s</td>
<td>Supervisor Feedback Environment (20a, b)</td>
<td>Affect (22)</td>
</tr>
<tr>
<td>overall receptivity to feedback</td>
<td>Learning Goal Orientation (21)</td>
<td>Social Desirability (23)</td>
</tr>
</tbody>
</table>

Note. Parentheses refer to the number of the corresponding hypothesis

Dimension 1: Defensiveness

Defensiveness refers to an individual’s tendency to dislike receiving feedback and to react to it negatively. The defensiveness dimension is based on London and Smither’s (2002) dimension “liking feedback.” The literature describing feedback motives contributes to our understanding of why individuals may differ in their defensiveness to
feedback. Ashford and Cummings (1983) note that motives for seeking and utilizing feedback may include reducing uncertainty, providing a signal as to the importance of goals, and increasing competence. In addition to these motivations, individuals may also have an ego defensive motivation. This motivation refers to an individual’s desire to obtain or avoid feedback with the goal of protecting his or her ego or self-concept. Individuals who are motivated by the desire to protect their egos may avoid feedback completely, seek only certain kinds of feedback, or may distort or discount feedback during interpretation. Supporting the notion of an ego defensive motivation is research by Baumgardner, Kaufman, and Levy (1989). In a series of studies, these researchers found that individuals, especially individuals with low self-esteem, use self-presentation tactics (e.g., complimenting sources of positive feedback and derogating sources of negative feedback) to improve affect after receiving feedback. Similarly, Pearce and Porter (1986) found that individuals who received performance appraisal feedback that was satisfactory (rather than “above satisfactory”) were more likely to experience a drop in organizational commitment and to have mixed attitudes toward the performance appraisal system. In contrast, individuals who received high appraisal ratings have been found to be more satisfied with the appraisal and the supervisor (Blakely, 1993).

Together these studies suggest that individuals are motivated to enhance and protect their ego when faced with feedback. Thus, an individual’s tendency to protect his or her ego when provided with feedback is expected to be an important factor contributing to an individual’s feedback orientation. Placing this defensiveness dimension in a nomological network with other variables and showing that it is related to
theoretically similar constructs and unrelated to theoretically dissimilar constructs are important parts of demonstrating its validity as a dimension. The following sections delineate hypotheses regarding the relationships of the defensiveness dimension with other variables.

Convergent and Discriminant Validity. Showing that the defensiveness dimension is conceptually related to constructs that are theoretically similar helps demonstrate convergent validity. In this study, fear of negative evaluation and the nature of feedback delivery in one’s supervisor feedback environment are expected to relate to the dimension of defensiveness. Evidence for discriminant validity can be shown by demonstrating that the dimension of defensiveness is not related to job involvement, a construct to which, theoretically, it should not be related.

Fear of Negative Evaluation. Fear of negative evaluation involves apprehension about receiving a negative evaluation, the avoidance of evaluation, and the tendency to expect negative evaluations (Watson & Friend, 1969; Rodebaugh et al., 2004). Research has found that individuals with a greater fear of negative evaluation tend to feel more threatened about receiving potentially threatening feedback and also tend to have worse reactions to negative feedback (Friend & Gilbert, 1973; Smith & Sarason, 1975). Furthermore, these individuals are concerned with making a good impression and tend to be more socially anxious (Leary, 1983, Watson & Friend, 1969). This research suggests that individuals with a greater fear of negative evaluation also may be more defensive to feedback.

**Hypothesis 1:** Defensiveness will positively relate to fear of negative evaluation.
Feedback Delivery. Feedback delivery is one component of the supervisor feedback environment proposed by Steelman, Levy, and Snell (2004). An organization’s feedback environment is defined as the “contextual or situational characteristics of the feedback process” (Steelman et al., 2004, p. 166). It refers more to the context surrounding day-to-day feedback interactions rather than the formal performance appraisal feedback session. The dimension of feedback delivery in particular is the degree to which feedback is provided in a willing, considerate, and respectful way. Individuals who work in environments where feedback is delivered effectively should have positive experiences when receiving feedback. It seems reasonable that these positive experiences will lead individuals to have a more favorable disposition towards feedback and be less defensive. Supporting this argument is the finding that feedback delivery is related to satisfaction with feedback (Steelman, et al. 2004).

**Hypothesis 2:** Defensiveness will negatively relate to feedback delivery.

Job Involvement. While defensiveness is expected to be related to fear of negative evaluation and feedback delivery, it is expected to be unrelated to job involvement. On a theoretical level, defensiveness, the tendency to dislike receiving feedback and have negative reactions to it, does not have an obvious relationship with job involvement, the extent to which an individual is engaged in or preoccupied with his or her job. Demonstrating that defensiveness is unrelated to job involvement provides evidence of discriminant validity for this dimension.

**Hypothesis 3:** Defensiveness will be unrelated to job involvement.
In review, defensiveness refers to an individual’s tendency to dislike receiving feedback and to react to it negatively. Defensiveness is expected to be positively related to fear of negative evaluation and negatively related to feedback delivery. It is also expected that defensiveness is unrelated to job involvement. Support for these hypotheses provides evidence of convergent and discriminant validity, respectively.

Dimension 2: Utility

While the defensiveness dimension focuses more on individuals’ affective reactions towards feedback, utility captures individuals’ beliefs that feedback can lead to other valued outcomes. Utility is defined as an individual’s tendency to believe that feedback is instrumental in achieving goals or obtaining desired outcomes at work. The utility dimension is based on London and Smither’s dimension “belief in the value of feedback,” which is described as the ability of feedback to lead to other valued outcomes such as personal effectiveness (London & Smither, 2002, p. 83). This is similar to the idea of instrumentality in VIE theory, which is defined as outcome-outcome association (i.e., the ability of feedback to lead to other important outcomes, Vroom, 1964).

The perceived utility of feedback has surfaced in the literature as an important factor influencing an individual’s reactions to feedback. Perceived usefulness of feedback has been found to influence the motivation to accept, seek, and use feedback (Brett & Atwater, 2001; Vroom, 1964). Research on factors influencing the perceived usefulness of feedback has generally focused on how the source (e.g., peer vs. supervisor, credibility), the type of feedback (e.g., positive vs. negative, accuracy) and the feedback environment (e.g., supportiveness) can influence perceptions of utility (Brett & Atwater,
Makiney and Levy (1998) found that individuals who believed that feedback from peers was useful and credible were more likely to use this information when making ratings about an employee. Here it is proposed that individuals can differ in their tendency to perceive feedback as useful. To demonstrate the validity of this utility dimension, hypotheses are made regarding the relationship of this construct with other variables.

**Convergent and Discriminant Validity.** The dimension of utility is expected to be related to job involvement and both the credibility and quality of feedback in one’s supervisor feedback environment. Support for these relationships provides evidence of convergent validity. It is also expected that this dimension is unrelated to fear of negative evaluation. Support for this hypothesis provides evidence of discriminant validity.

**Job Involvement.** Job involvement is defined as “the degree to which one is cognitively preoccupied with, engaged in, and concerned with one’s present job” (Paullay, Alliger, & Stone-Romero, 1994, p. 224). An individual who is highly involved in his or her job would be expected to perceive job related feedback as more useful than individuals who are less involved in their jobs. Supporting this notion is research by Ashford and Cummings (1983) that reports a positive relationship between job involvement and feedback seeking behavior.

**Hypothesis 4:** Utility will positively relate to job involvement.

**Credibility and Quality of Feedback.** Feedback utility is also expected to be related to two dimensions of the supervisor feedback environment: feedback credibility and feedback quality. Feedback credibility is the expertise and trustworthiness of
feedback sources. Feedback quality is the consistency and usefulness of the feedback. As noted previously, the usefulness of feedback is related to the credibility of the source, accuracy of feedback, and the feedback environment (Brett & Atwater, 2001; Facteau et al., 1998; Herold et al., 1987). It follows that the individuals who work in feedback environments where their supervisors provide credible and high quality feedback should also tend to perceive feedback as useful.

**Hypothesis 5:** Utility will positively relate to feedback credibility

**Hypothesis 6:** Utility will positively relate to feedback quality.

*Fear of Negative Evaluation.* While utility is expected to be related to job involvement and feedback credibility and quality, it is expected to be unrelated to fear of negative evaluation. On a theoretical level, utility, the tendency to believe that feedback is useful for achieving goals and desired outcomes at work, is unrelated to fear of negative evaluation, the degree to which people are apprehensive about the idea of being negatively evaluated. Demonstrating that utility is unrelated to fear of negative evaluation provides evidence of discriminant validity for this dimension.

**Hypothesis 7:** Utility will be unrelated to fear of negative evaluation.

In review, utility refers to an individual’s tendency to believe that feedback is useful in achieving goals and obtaining desired outcomes. Utility is expected to be positively related to job involvement, feedback credibility and feedback quality. It is also expected that utility is unrelated to fear of negative evaluation. Support for these hypotheses provides evidence of convergent and discriminant, respectively.


**Dimension 3: Accountability**

Accountability refers to an individual’s tendency to feel a sense of obligation to act on feedback. This dimension is based on London and Smither’s dimension entitled “feeling accountable to act on feedback” (2002, p. 83). London, Smither, and Adsit (1997) assert that accountability is critical to the effectiveness of performance appraisal systems. Not only do raters need to be accountable for making accurate ratings and useful feedback, but ratees also need to be held accountable for utilizing the feedback they receive. Accountability of ratees is related to improvements in performance over time. In a study by Walker and Smither (1999) it was found that managers who met with subordinates to discuss feedback, either from the current year or the year before, improved more than other managers. The accountability dimension proposed here suggests that some individuals are more likely than others to feel accountable to respond to feedback. To demonstrate the validity of this dimension, its relation with other constructs is explored.

*Convergent and Discriminant Validity.* Accountability is expected to relate to the constructs of protestant work ethic and work locus of control. Accountability is not expected to relate to public self-consciousness, a construct with which it has little theoretical overlap.

*Protestant Work Ethic.* The construct of protestant work ethic emerged out of the idea that hard honest work is one’s Christian obligation, it justifies the accumulation of wealth, and it is related to the rise of capitalism (Weber, 1958). Today, Protestant Work Ethic is less tied to religious beliefs and can be defined as an individual’s tendency to feel
an almost moral obligation to engage in hard work (Furnham, 1990; Mudrack, 1999). More specifically, individuals with a high protestant work ethic view hard work as valuable and worthwhile and take issue with excess leisure time and over indulgence. A strong protestant work ethic has been found to relate to need for achievement, job satisfaction, commitment, persistence on a boring task, and persistence in the face of a negative performance evaluation (Furnham, 1984). Based on this research, it is hypothesized that individuals with a strong work ethic should be more likely to feel accountable for using feedback. More specifically, feeling an obligation to engage in hard work should be related to feeling a greater obligation and responsibility to respond to feedback.

**Hypothesis 8:** Accountability will positively relate to protestant work ethic.

*Locus of Control.* Locus of Control is defined as an individual’s tendency to make attributions about outcomes or events to either external forces or internal forces (Rotter, 1966). Those with an internal locus of control are more likely to attribute outcomes to something that is within their control such as effort. In contrast, those with an external locus of control are more likely to attribute outcomes to something outside of their control such as luck or fate. An internal locus of control has been found to relate to more favorable attitudes towards multi-rater feedback systems (Funderburg & Levy, 1997). Having an internal locus of control has also been found to relate to greater tendency to view feedback as diagnostic, to accept feedback, and to respond to feedback (Ilgen et al., 1979). Those who have an internal locus of control are expected to feel more accountable for responding to feedback. This greater accountability would stem
from their beliefs that they personally control outcomes and have the ability to change outcomes by responding to feedback. In contrast, those with an external locus of control would be more likely to feel that outcomes are out of their control and thus feel less pressure or responsibility to respond to feedback in an attempt to affect these outcomes.

**Hypothesis 9:** Accountability will positively relate to locus of control.

**Public Self-Consciousness.** Whereas protestant work ethic and locus of control are expected to be related to accountability, public self-consciousness is expected to be unrelated. On a theoretical level, accountability, an individual’s tendency to feel a sense of obligation to act on feedback, is unrelated to public self-consciousness, the tendency to view oneself as a social object and be aware of the observation of others when in public. Demonstrating that accountability is unrelated to public self-consciousness provides evidence of discriminant validity for this dimension.

**Hypothesis 10:** Accountability will be unrelated to public self-consciousness.

In review, accountability refers to an individual’s tendency feel a sense of obligation to act on feedback. Accountability is expected to be positively related to protestant work ethic and locus of control. It is also expected that accountability is unrelated to public self-consciousness. Support for these hypotheses provides evidence of convergent and discriminant validity, respectively.

**Dimension 4: Social Awareness**

While the accountability dimension described above refers more to internal pressures to respond to feedback, social awareness can be viewed more as external pressure to be aware of and to respond to feedback. Social Awareness, defined as the
tendency to use feedback to be aware of other’s views of oneself and to be sensitive to these views, is based on what London and Smither describe as an individual’s “sensitivity to other’s views of oneself” (2002, p. 83). Individuals who are more socially aware are more sensitive to the opinions and input of others and, as a result, should be more likely to consider and respond to the feedback of others. Considering the relationships between social awareness and other constructs is important for demonstrating its validity.

**Convergent and Discriminant Validity.** Social awareness is expected to relate to public self-consciousness and social desirability. Evidence for discriminant validity can be demonstrated by showing that while the dimension of social awareness is related to public self-consciousness, it is unrelated to general self-efficacy.

**Public Self-Consciousness.** This social awareness dimension emerges out of research on public self-consciousness and feedback. Public self-consciousness refers to the tendency to view the self as a social object and be aware of the observation of others when in a public context (Fenigstein, Scheier, & Buss, 1975; Levy et al., 1995; London, Larson, & Thisted, 1999). Although some have implied that public self-consciousness is similar to social anxiety, the original conceptualization by Fenigstein et al. (1975) views these two constructs separately. Public self-consciousness may be an important precursor to social anxiety, however, simply being aware of one’s self as a social object does not always elicit anxiety.

In the feedback literature, it is proposed that public self-consciousness increases an individual’s desire for feedback (Levy et al., 1995; London et al., 1999). This hypothesis is based on the idea that individuals with higher levels of public self-
consciousness are more aware of and also more concerned with how others view or evaluate them. The link between public self-consciousness and the desire for feedback is supported by the work of Levy and colleagues (1995) who found that both a greater desire for feedback and more initial seeking intentions in those individuals with higher public self-consciousness. However, additional research on this construct by London et al. (1999) did not find support for the hypothesis that public self-consciousness would be related to feedback seeking and development. The dimension of social awareness is similar to public self-consciousness but is more specific to the area of feedback. The greater awareness of and concern with others’ views demonstrated by those who are publicly self-consciousness is expected to relate to an individual’s tendency to be socially aware when processing and responding to feedback.

**Hypothesis 11:** Social awareness will positively relate public self-consciousness.

*Social Desirability.* Social desirability is the tendency to present oneself in a favorable light. Research on social desirability focuses on the tendency for socially desirable responding to bias measurement when self-report measures are used (Paulhus, 1991). A weak correlation between an instrument and social desirability is often used to provide evidence of discriminant validity. However, for the dimension of social awareness, social desirability is investigated to provide evidence of convergent validity. This relationship is expected due to the theoretical overlap between these two constructs. Both social awareness and social desirability involve an awareness of other’s opinions of oneself. Thus it is expected that social awareness will be positively related to social desirability.
**Hypothesis 12:** Social awareness will positively relate to social desirability.

*General Self-Efficacy.* While public self-consciousness and social desirability are expected to relate to social awareness, general self-efficacy is expected to be unrelated. On a theoretical level, social awareness, an individual’s tendency to use feedback to be aware of other’s views of oneself and sensitive to these views, is unrelated to general self-efficacy, an individual’s evaluation of his or her general competence. Demonstrating that social awareness is unrelated to general self-efficacy provides evidence of discriminant validity for this dimension.

**Hypothesis 13:** Social awareness will be unrelated to general self-efficacy.

In review, social awareness refers to an individual’s tendency to use feedback to be aware of other’s views of oneself and to be sensitive to these views. Social Awareness is expected to be positively related to public self-consciousness and social desirability. It is also expected that social awareness is unrelated to general self-efficacy. Support for these hypotheses provides evidence of convergent and discriminant, respectively.

**Dimension 5: Feedback self-efficacy**

Feedback self-efficacy refers to an individual’s tendency to have confidence in dealing with feedback situations and the content of the feedback itself. Self-esteem and self-efficacy are two individual difference variables that have frequently been explored in the feedback literature. Researchers have found evidence that individuals with high self-esteem are more accepting and responsive to positive feedback and are more likely to interpret feedback as positive. In contrast, those with low self-esteem are more accepting and responsive to negative feedback and are more likely to interpret feedback as negative.
Self-esteem has also been studied with regard to feedback seeking behavior, revealing conflicting evidence regarding the relationship between feedback behavior and self-esteem. While some researchers have found a positive relationship between self-esteem and feedback seeking, others have found a negative relationship (Ashford, 1986; Fedor, Rensvold, & Adams, 1992; Levy, Albright, Cawley, & Williams, 1995; Northcraft & Ashford, 1990). Research by Levy et al. (1995) found that self-esteem is related to the modification of feedback seeking intentions, with those having high self-esteem being more likely to modify. These findings were attributed to the idea that individuals with high self-esteem may have more to protect than those with low self-esteem. Along these lines, Moss, Valenzi, Taggart (2003) found that individuals with high self-esteem were more likely to seek positive feedback in order to protect their image. At odds with the self-protective explanation is evidence suggesting that individuals with high self-esteem are more likely to seek feedback that verifies their negative self-views than those with low self-esteem (Bernichon, Cook, & Brown, 2003). Further, the avoidance of negative feedback by individuals with low self-esteem may occur because they are more sensitive to negative feedback. This sensitivity to negative feedback is said to stem from a lack of resources to deal with it effectively.

Researchers have also investigated self-efficacy in relationship to the feedback process. Self-efficacy differs from self-esteem in that self-efficacy often refers to a more context/task specific evaluation of competence (although there are generalized measures
of self-efficacy as well), whereas self-esteem always focuses on a global self-evaluation of competence. Like self-esteem, the relationship between self-efficacy and the feedback process is not as straightforward as expected. Thus far, no direct relationship has been found between self-efficacy and feedback seeking (Brown, Ganesan, & Challagalla, 2001; Renn & Fedor, 2001). However, in one study self-efficacy did emerge as a moderator between information seeking (inquiry and monitoring) and role clarity (Brown et al., 2001). In another study, a relationship was found between self-efficacy and performance that was mediated by feedback-based goals (Renn & Fedor, 2001). Together these findings suggest that although self-efficacy may not directly increase feedback seeking, it may determine the effectiveness of different information seeking techniques and it may influence how one responds to feedback.

Overall, the effects of self-esteem and self-efficacy on feedback seeking and the feedback process are unclear. One reason for these inconsistencies may be that these are very general individual difference constructs that are inadequate for predicting more specific outcomes relevant to feedback. Hence, the feedback self-efficacy dimension of feedback orientation measures an individual’s self-efficacy as it relates specifically to feedback.

Convergent and Discriminant Validity. Feedback self-efficacy is expected to relate to general self-efficacy and locus of control. Evidence for discriminant validity can be by demonstrating that while the dimension of feedback self-efficacy is related to general self-efficacy and locus of control, it is unrelated to protestant work ethic.
General Self-efficacy. Self-efficacy refers to evaluations of competence that can be either general or context/task specific. Although the feedback self-efficacy dimension is a measure of perceived competence pertaining to feedback, it is expected that it will be positively related to more general measures of self-efficacy. Supporting this contention is research by Maurer, Weiss, and Barbeite (2003) that found that generalized self-efficacy had a significant positive relationship with measures of developmental self-efficacy.

**Hypothesis 14:** Feedback self-efficacy will positively relate to general feedback self-efficacy.

Locus of Control. As noted previously, individuals with an internal locus of control believe that outcomes are within their control and they have the ability to influence what occurs in their life. Locus of control has been found to relate to measures of self-efficacy and self esteem. Locus of control is also expected to be positively related to the feedback self-efficacy dimension of feedback orientation.

**Hypothesis 15:** Feedback self-efficacy will positively relate to internal locus of control.

Public Self-Consciousness. While general self-efficacy and locus of control are expected to relate to feedback self-efficacy, public self-consciousness is expected to be unrelated. On a theoretical level, feedback self-efficacy, an individual’s tendency to have confidence in dealing with feedback situations and feedback, is unrelated to public self-consciousness, the tendency to view oneself as a social object and be aware of the observation of others when in public. Demonstrating that feedback self-efficacy is
unrelated to public self-consciousness provides evidence of discriminant validity for this dimension.

**Hypothesis 16:** Feedback self-efficacy will be unrelated to public self-consciousness.

In review, feedback self-efficacy refers to an individual’s tendency to have confidence in dealing with feedback situations and feedback. Feedback self-efficacy is expected to be positively related to general self-efficacy and internal locus of control. It is also expected that feedback self-efficacy is unrelated to public self-consciousness. Support for these hypotheses provides evidence of convergent and discriminant validity, respectively.

**Dimension 6: Feedback Processing**

Feedback processing refers to an individual’s tendency to spend time processing and thinking about feedback. This dimension is based on London and Smither’s “cognitive propensity to process feedback mindfully and deeply” (2002, p. 84). Taylor, Fisher, and Ilgen (1984) propose that while the processing of feedback can occur both unconsciously and consciously, it is the conscious processing of feedback that can more strongly influence the accuracy of the beliefs and perceptions based on feedback. This more conscious processing involves deliberate gathering of information, increased awareness and attendance to different sources of feedback within the organization, and greater integration of information (Taylor et al., 1984).

The argument of Taylor et al. (1984) for the importance of conscious processing of feedback is supported by research on depth of processing. This research has shown
that information that is processed in a deeper, more deliberate way is more likely to be accurately remembered (Craik & Tulving, 1975). In particular, researchers have demonstrated that feedback that is processed more deeply is also more effective for improving performance (Lhyle & Kulhavy, 1987). To demonstrate the validity of the feedback processing dimension, hypotheses are developed describing its relationship to other relevant constructs.

Convergent and Discriminant Validity. The dimension of feedback processing is expected to be related to need for cognition and job involvement. Evidence for discriminant validity can be shown by demonstrating that while the dimension of feedback processing is more related to need for cognition and job involvement, it is unrelated to fear of negative evaluation.

Need for Cognition. An individual’s “tendency to engage in and enjoy effortful cognitive endeavors” describes the need for cognition (Cacioppo, Petty, & Kao, 1984). Need for cognition predicts how individuals process both task and social information. It has been studied in the context of decision-making, problem solving, advertising, academic performance, and jury deliberation. In particular, research on problem solving has found that individuals with higher need for cognition were more successful in solving complex problems, collected information and made decisions based on more aspects of the problem, faced fewer crises during the problem solving process, and were less likely to be affected by misleading information when cognitive resources were available (Dudley & Harris, 2003; Nair & Ramnarayan, 2000). An individual’s need for cognition may also affect how an individual processes feedback. Individuals who have a higher
need for cognition, who enjoy engaging in difficult cognitive endeavors, are expected to spend more time processing and thinking about feedback.

**Hypothesis 17:** Feedback processing will positively relate to need for cognition.

*Job Involvement.* As noted previously, job involvement is defined as “the degree to which one is cognitively preoccupied with, engaged in, and concerned with one’s present job” (Paullay, Alliger, & Stone-Romero, 1994, p. 224). Individuals with a high level of job involvement are also expected to spend more time processing job related feedback.

**Hypothesis 18:** Feedback processing will positively relate to job involvement.

*Fear of Negative Evaluation.* While feedback processing is expected to be related to need for cognition and job involvement, it is expected to be unrelated to fear of negative evaluation. On a theoretical level, feedback processing, an individual’s tendency to spend time processing and thinking about feedback, is unrelated to fear of negative evaluation, the degree to which people are apprehensive about the idea of being negatively evaluated. Demonstrating that feedback processing is unrelated to fear of negative evaluation provides evidence of discriminant validity for this dimension.

**Hypothesis 19:** Feedback processing will be unrelated to fear of negative evaluation.

In review, feedback processing refers to an individual’s tendency to spend time processing and thinking about feedback. Feedback processing is expected to be positively related to need for cognition and job involvement. It is also expected that
feedback processing is be unrelated to fear of negative evaluation. Support for these hypotheses provides evidence of convergent and discriminant, respectively.

Feedback Orientation Overall

To further demonstrate the validity of feedback orientation as a whole, this study investigates its relationship with supervisor feedback environment (convergent validity), learning goal orientation (convergent validity) and social desirability and affect (discriminant validity).

Convergent and Discriminant Validity. The global construct of feedback orientation is expected to be related to the feedback environment and learning goal orientation. Evidence for discriminant validity can be shown by demonstrating that the while the construct orientation is more related to the feedback environment and learning goal orientation, it is unrelated social desirability and affect.

Feedback Environment. According to London and Smither (2002), feedback orientation is stable in the medium term (6 to 12 months) and can be shaped over time by situational factors. To investigate the malleability of feedback orientation, the relationship between feedback orientation and feedback environment is explored. Steelman, Levy, and Snell (2004) define feedback environment as the “contextual or situational characteristics of the feedback process” (p. 166).

A number of factors are critical to shaping an individual’s feedback environment including source credibility, feedback quality, feedback delivery, frequency of favorable feedback, frequency of unfavorable feedback, source availability, and promoting feedback seeking (Steelman et al., 2004). Source credibility refers to the perceived
expertise and trustworthiness of the source providing the feedback. Feedback quality is the consistency and usefulness of information provided. Feedback delivery refers to the amount of consideration with which the source provides feedback. Frequency of favorable and unfavorable feedback deals with the extent to which positive and negative feedback is received that is believed to be warranted or deserved (not just the amount of each that is received). Source availability addresses the amount of contact with the feedback source and the ease with which feedback can be obtained from this source. Finally, promotes feedback seeking is the extent to which the environment promotes or inhibits feedback seeking. (While Steelman et al. (2004) looked at these dimensions in both the context of the supervisor and coworker feedback environment, the main focus in the current study is the supervisor feedback environment.)

Positive and reinforcing experiences with feedback resulting from a supportive feedback environment are expected to shape individuals over time to have a more favorable feedback orientation. In particular, supportive feedback environments (where feedback seeking is encouraged and feedback is available, credible, frequent, and timely) can increase an individual’s acceptance of feedback and contribute to his or her development of a favorable orientation towards feedback. This argument is consistent with research demonstrating the utility of supportive coworkers, supervisors, and policies in fostering continuous learning within employees (Maurer & Tarulli, 1994). Similarly, having a supportive feedback environment should foster favorable feedback orientation. This is expected to be especially true for individuals who have had continued experience
with the feedback environment since feedback orientation is stable in the medium term and can change gradually over time.

**Hypothesis 20a:** One’s experienced feedback environment will positively relate to an individual’s feedback orientation.

**Hypothesis 20b:** Feedback environment will have a stronger positive relationship with feedback orientation for individuals who are exposed to it for longer periods of time than it has for those who are exposed to it for shorter periods of time.

*Learning Goal Orientation.* Learning goals emphasize the development and mastery of new skills. The implicit assumptions of individuals who have a learning goal orientation are based on incremental theory, which asserts that ability can be acquired through learning and practice (Dweck, 1986). In contrast, performance goals emphasize the importance of demonstrating competence and receiving positive evaluations. The implicit assumptions of individuals with a performance goal orientation are based on entity theory, which asserts that abilities are fixed and cannot easily be changed (Dweck, 1986). Research has found that individuals with a learning goal orientation perceive 360 feedback as more useful (Brett & Attwater, 2001), are more likely to seek feedback (Tuckey, Brewer, & Williamson, 2002; VandeWalle & Cummings, 1997), are more persistent and have higher expectancies and valence levels with regards to goals after negative feedback (Colquitt & Simmering, 1998; Cron, Slocum, & Vandewalle, 2002), and are more likely to improve performance following the provision of feedback (Heslin
This research suggests that individuals with a learning goal orientation should also be more likely to have a favorable feedback orientation.

**Hypothesis 21:** Feedback orientation will positively relate to learning goal orientation.

*Social Desirability and Affect.* Respondents may be responding to the Feedback Orientation Scale in ways to appear more favorable. Smith and Ellingson (2002) note that social desirability is thought to affect the validity of a scale. More specifically, “an observed covariation between a personality scale and a scale designed to measure social desirability responding represents an indictment of the construct validity of that personality scale because of its saturation with nontrait or error variance” (p. 211). Although Smith and Ellingson (2002) conclude from their research that response distortion has little impact on the construct validity of personality measures (in the context of selection), other researchers have found that socially desirable responding can degrade the construct and criterion validity of non-cognitive measures (Douglas, McDaniel, & Snell, 1996). Thus, demonstrating that feedback orientation has a weak relationship with social desirability helps establish the construct validity of feedback orientation.

Individuals’ moods at the time of completing the survey may also influence how they are responding. Like social desirability, covariation between the feedback orientation and affect may indicate that the influence of nontrait or systematic error variance, which could ultimately affect construct validity. Demonstrating that affect is weakly related to feedback orientation provides further evidence of construct validity.
In this research, each of these constructs is measured. It is hypothesized that social desirability and affect are not driving individuals survey responses and they should be weakly related to feedback orientation and its dimensions (with the exception of a hypothesized relationship between social desirability and social awareness).

**Hypothesis 22:** Feedback orientation will be only weakly related to affect

**Hypothesis 23:** Feedback orientation will be only weakly related to social desirability.

In review, the above section discusses additional hypotheses for investigating construct validity. It is predicted that feedback orientation should be positively related to the feedback environment and, due to the malleability of feedback orientation, this relationship gets stronger with more exposure to one’s feedback environment. Feedback orientation is also expected to be related to learning goal orientation. While feedback environment and learning goal orientation are expected to be positively related to feedback orientation, it is hypothesized that affect and social desirability are unrelated to feedback orientation. Support for these hypotheses provides additional evidence for convergent and discriminant validity.

**Criterion-Related Validity**

Providing empirical support for the convergent and discriminant validity of feedback orientation and its dimensions provides evidence that these dimensions are measuring what they are intended to capture. Once the scale is established by demonstrating evidence of convergent and discriminant validity, this research goes one
step further and explores how feedback orientation and its dimensions may be useful for predicting important work related outcomes.

Table 2 lists expected outcomes of feedback orientation and its dimensions. Support for these relationships provides evidence of criterion-related validity. The following section discusses in detail the variables that are used to explore criterion validity for each dimension and for the construct as a whole.
Table 2

Summary of Feedback Orientation Dimensions and Variables Used to Demonstrate Criterion-Related Validity.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Criterion-Related Validity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defensiveness: An individual’s tendency to dislike receiving feedback and to react to it negatively</td>
<td>Resistance to Change (24a-c) PA Session Satisfaction (25a-c)</td>
</tr>
<tr>
<td>Utility: An individual’s tendency to believe that feedback is instrumental in achieving goals or obtaining desired outcomes at work</td>
<td>PA Utility Perceptions (26a-d) Perceived Benefits of Development (27a-d)</td>
</tr>
<tr>
<td>Accountability: An individual’s tendency to feel a sense of obligation to act on feedback.</td>
<td>Intentions to Use Feedback (28a-c) Role Clarity (29a-c)</td>
</tr>
<tr>
<td>Social Awareness: An individual’s tendency to use feedback to be aware of other’s views of oneself and to be sensitive to these views</td>
<td>Self-Monitoring (30a-c) Intentions to Use Feedback (31a-c)</td>
</tr>
<tr>
<td>Feedback Self-Efficacy: An individual’s tendency to have confidence in dealing with feedback situations and feedback.</td>
<td>PA Session Satisfaction (32a-c) Participation in Development (33a-c)</td>
</tr>
<tr>
<td>Feedback Processing: An individual’s tendency to spend time processing and thinking about feedback</td>
<td>Role Clarity (34a-c) Self-Other Discrepancy (35a-c)</td>
</tr>
<tr>
<td>Feedback Orientation: An individual’s overall receptivity to feedback</td>
<td>Feedback Seeking (36a-c)</td>
</tr>
</tbody>
</table>

*Note.* Parentheses refer to the number of the corresponding hypothesis. PA = Performance Appraisal

*Defensiveness.* Defensiveness is expected to be particularly useful in predicting resistance to change and satisfaction with a performance appraisal session. Not only is it expected that defensiveness, due to its feedback specific nature, is useful in predicting these outcomes, it is also expected that it predicts these outcomes above and beyond the more general personality trait of fear of negative evaluation and the feedback delivery dimension of the feedback environment (variables used to demonstrate convergent validity).
Resistance to Change. Feedback, whether it is received at an individual or organizational level, can often highlight a need for change. Change is often accompanied by resistance. Resistance may involve responses ranging from apathy to more active efforts to impede change (Coetsee, 1999). Oreg (2003) asserts that resistance to change involves a reluctance to lose control, cognitive rigidity, a lack of psychological resilience, intolerance to the adjustment period involved in change, preference for low levels of stimulation and novelty, and a reluctance to give up old habits. Individuals who are defensive to feedback may have more negative reactions to feedback and exhibit greater resistance to receiving it. Due to these negative reactions to feedback, it is also expected that these individuals demonstrate greater resistance to change, which is often highlighted by feedback.

**Hypothesis 24a:** Defensiveness will be a positive predictor of resistance to change.

Defensiveness is also expected to predict resistance to change above and beyond the general personality characteristic of fear of negative evaluation. As noted previously, one of the criticisms of research on individual differences in the feedback process is the broad nature of the variables used. It is suspected that the broad nature of these variables leads to weak and inconsistent relationships with work outcomes involving feedback. Thus, it is important to demonstrate that the dimensions of feedback orientation, which are more specific to feedback, predict above and beyond these more general personality traits.
**Hypothesis 24b:** Defensiveness will predict resistance to change above and beyond fear of negative evaluation.

It is also expected that defensiveness will predict resistance to change above and beyond feedback delivery. Feedback delivery is a characteristic of the feedback environment that can influence how individuals respond to change. However, because defensiveness is an individual difference variable, it is expected to be more useful in predicting individual attitudes and behaviors than the environmental factor of feedback delivery.

**Hypothesis 24c:** Defensiveness will predict resistance to change above and beyond feedback delivery.

*Sat**Sat**isfaction with Performance Appraisal Session.* Reactions to performance appraisal are important because they are linked to the acceptance and successes of performance appraisal systems. Session satisfaction has been identified as an important aspect of performance appraisal reactions (Keeping & Levy, 2000). Providing feedback about performance to employees is a central part of performance appraisal sessions. Due to the central role of feedback in performance appraisal sessions, it is expected that the degree to which one is defensive when receiving feedback helps predict his or her satisfaction with this session. Individuals who tend to be more defensive when receiving feedback are expected to be less satisfied with performance appraisal sessions.

**Hypothesis 25a:** Defensiveness will be a negative predictor of performance appraisal session satisfaction.
Furthermore, due to the feedback specific nature of this dimension, defensiveness is also expected to predict session satisfaction above and beyond the more general construct of fear of negative evaluation.

**Hypothesis 25b:** Defensiveness will predict performance appraisal session satisfaction above and beyond fear of negative evaluation.

Since defensiveness is an individual difference construct, it is also expected to predict an individual’s attitudes and behaviors above and beyond feedback delivery, a characteristic of the feedback environment.

**Hypothesis 25c:** Defensiveness will predict performance appraisal session satisfaction above and beyond feedback delivery.

*Utility.* Utility is expected to be particularly useful in predicting perceived utility of performance appraisal and perceived benefits of developmental activities. Not only is it expected that utility can be useful in predicting these outcomes, it is also expected that it can predict these outcomes above and beyond the more general constructs of job involvement due to its feedback specific nature. It is also expected to predict these outcomes above and beyond feedback credibility and quality, general characteristics of the feedback environment.

*Perceived Performance Appraisal Utility.* Another important reaction to performance appraisal identified by Keeping and Levy (2000) is the perceived utility of performance appraisal. Perceived utility of performance appraisal is frequently operationalized as the usefulness of the appraisal session. Due to the central role of feedback in performance appraisal, it is expected that an individual’s tendency to
perceive feedback as useful predicts his or her perceptions of performance appraisal utility. Reactions to performance appraisal are important because they are linked to the degree to which performance appraisal systems are accepted and successful.

**Hypothesis 26a:** Utility will be a positive predictor of the perceived utility of performance appraisal.

The utility dimension of feedback orientation is also expected to predict perceptions of performance appraisal utility above and beyond the more general constructs of job involvement, feedback credibility and feedback quality. Utility is expected to predict above and beyond job involvement due the fact that it is an individual difference measure more specific to feedback whereas job involvement is a more general individual difference measure. Utility is expected to predict utility of performance appraisal above and beyond feedback credibility and feedback quality because these dimensions of the feedback environment are more distal environmental variables that have a less direct impact on individual’s behaviors.

**Hypothesis 26b:** Utility will predict perceived utility of performance appraisal above and beyond job involvement.

**Hypothesis 26c:** Utility will predict perceived utility of performance appraisal above and beyond feedback credibility.

**Hypothesis 26d:** Utility will predict perceived utility of performance appraisal above and beyond feedback quality.

*Perceived Benefits of Development.* Maurer and Tarulli (1994) suggest that developmental activities can provide intrinsic, extrinsic, and psychosocial benefits to
participants. These perceived benefits have been linked to greater intentions to participate and actual participation in developmental activities (Maurer et al. 2003; Maurer & Tarulli, 1994). Intrinsic rewards associated with developmental activities may include making work more interesting or stimulating. Extrinsic rewards may include raises, promotions, or job security. Psychosocial rewards may include becoming well rounded or reaching one’s potential. The perception of intrinsic, extrinsic, and psychosocial rewards in development is expected to stem from an individual’s tendency to view feedback as useful, due to the central role of feedback in developmental activities.

**Hypothesis 27a:** Utility will be a positive predictor of the perceived benefits of participation in developmental activities.

The utility dimension of feedback orientation is also expected to predict perceived benefits of participation in developmental activities above and beyond the more general constructs of job involvement, feedback credibility, and feedback quality. Utility is expected to predict participation in development above and beyond job involvement due to the fact that it is an individual difference measure more specific to feedback. Utility is expected to predict participation in development above and beyond feedback credibility and feedback quality because these dimensions of the feedback environment are more distal environmental factors variables that have a less direct impact on individual’s behaviors.

**Hypothesis 27b:** Utility will predict perceived utility of participation in developmental activities above and beyond job involvement.
Hypothesis 27c: Utility will predict perceived utility of participation in developmental activities above and beyond feedback credibility.

Hypothesis 27d: Utility will predict perceived utility of participation in developmental activities above and beyond feedback quality.

Accountability. With regards to the prediction of important outcomes, accountability is expected to be particularly useful in predicting intentions to use feedback and role clarity. Not only is it expected that accountability can be useful in predicting these outcomes, it is also expected that it can predict these outcomes above and beyond the more general constructs of locus of control and protestant work ethic due to its feedback specific nature.

Intentions to use feedback. Intentions to use feedback refers to an individual's plan to apply the feedback they receive to improve performance. Intentions have been found to be a good predictor of an individual’s actual behavior (Ajzen & Madden, 1986). Thus, an individual’s intention to use feedback is a good indication of whether or not he or she will actually use and apply the feedback received. Research comparing managers receiving individualized versus normative feedback found that while individualized feedback lead to more satisfaction with the feedback process and perception of the information as being more useful, there were no significant differences between groups in the intention to use the feedback (Smither, Wohlers, & London, 1995). This suggests that motivation to use feedback may not be adequately predicted by individual’s tendency to value feedback or perceive it as useful. However, the degree to which individuals are motivated to use feedback should be influenced by their tendency to hold themselves
accountable for responding to the feedback they receive. Thus, it is expected that individuals’ tendency to hold themselves accountable for responding to feedback is a good predictor of intention to use feedback.

**Hypothesis 28a:** Accountability will positively predict intentions to use feedback.

Due to its feedback specific nature, the accountability dimension is also expected to predict intentions to use feedback above and beyond the more general individual difference variables of protestant work ethic and locus of control.

**Hypothesis 28b:** Accountability will predict intentions to use feedback above and beyond protestant work ethic.

**Hypothesis 28c:** Accountability will predict intentions to use feedback above and beyond locus of control.

*Role Clarity.* Role clarity is the degree to which an employee “possesses a clear and accurate understanding of role expectations and standards” (Brown, Ganesan, & Challagalla, 2001, p. 1044). Having role clarity can have an important impact on an employee’s ability to effectively function within his or her job and can lead to better job performance (Bray & Brawley, 2002). Research has already demonstrated that feedback and feedback seeking can increase an individual’s role clarity (Brown et al., 2001; Jackson & Schuler, 1985; Wanberg & Kammeyer-Mueller, 2000). Taylor et al. (1984) suggest that the conscious and deliberate processing of feedback will result in greater role clarity. Thus, it is proposed that an individual’s tendency to hold himself or herself
accountable to respond to and follow up on feedback is an important predictor of role clarity.

**Hypothesis 29a:** Accountability will positively predict role clarity.

Accountability, a feedback specific individual difference variable, is also expected to predict role clarity above and beyond the more general individual difference variables of work ethic and locus of control.

**Hypothesis 29b:** Accountability will predict role clarity above and beyond protestant work ethic.

**Hypothesis 29c:** Accountability will predict role clarity above and beyond locus of control.

*Social Awareness.* Social awareness is expected to be particularly useful in predicting self-monitoring and self-other discrepancy. Not only is it expected that social awareness can be useful in predicting these outcomes, it is also expected that it can predict these outcomes above and beyond the more general individual difference constructs of public self-consciousness and social desirability.

*Self-Monitoring.* Self-monitoring is defined as the “extent to which people regulate their self-presentation by tailoring their actions in accordance with immediate situational cues” (Lennox & Wolfe, 1984, p. 1349). Underlying this construct is the assumption that “people differ in the extent to which they monitor (observe, regulate, and control) the public appearances of self that they display in social settings and interpersonal relationships” (Day, Shleicher, Unckless, & Hiller, 2002, p. 390). A meta-analysis reveals that self-monitoring is related to better performance ratings, more
promotions, and a greater likelihood of emerging as a leader (Day et al., 2002). Self-monitoring is typically measured in two dimensions: the sensitivity to expressive behavior of others and the ability to modify self-presentation. In the present study, it is expected that the dimension of social awareness, the tendency to use feedback to increase awareness of other’s views of oneself and to be sensitive to these views, can lead improve individuals ability to modify their self-presentation. More specifically, the use of feedback to be aware of other’s opinions is expected to result in greater ability to adapt one’s self-presentation to the situation.

**Hypothesis 30a:** Social Awareness will positively predict self-monitoring.

Furthermore, the feedback specific individual difference variable of social awareness is expected to predict self-monitoring above and beyond the more general constructs of public-self consciousness and social desirability.

**Hypothesis 30b:** Social Awareness will predict self-monitoring above and beyond public self-consciousness.

**Hypothesis 30c:** Social Awareness will predict self-monitoring above and beyond social desirability.

*Intentions to use feedback.* An individual’s intention to can be a good predictor of whether or not he or she actually uses and applies the feedback received (Ajzen & Madden, 1986). As suggested by London and Smither (2002), it is expected that individuals who are more attuned to how others perceive them have stronger intentions to respond to feedback. These intentions to respond to feedback are driven by their sensitivity to the impression others have of them.
Hypothesis 31a: Accountability will positively predict intentions to use feedback.

Due to its feedback specific nature, the accountability dimension is also expected to predict intentions to use feedback above and beyond the more general individual difference variables of protestant work ethic and locus of control.

Hypothesis 31b: Accountability will predict intentions to use feedback above and beyond protestant work ethic.

Hypothesis 31c: Accountability will predict intentions to use feedback above and beyond locus of control.

Feedback Self-Efficacy. Feedback self-efficacy is expected to be particularly useful in predicting feedback seeking, satisfaction with the performance appraisal sessions, and participation in developmental activities. Not only is it expected that feedback self-efficacy can be useful in predicting these outcomes, it is also expected that it can predict these outcomes above and beyond the more general personality trait of general self-efficacy due to its feedback-specific nature.

Satisfaction with Performance Appraisal Session. As noted above, session satisfaction has been identified as an important indicator of performance appraisal reactions (Keeping and Levy, 2000). Since feedback is central to performance appraisal sessions, it is expected that the degree to which employees feel confident to deal with feedback and feedback situations influences their satisfaction with their performance appraisal session.
**Hypothesis 32a:** Feedback self-efficacy will be a positive predictor of performance appraisal session satisfaction.

Furthermore, due to the feedback specific nature of this dimension, feedback self-efficacy is also expected to predict session satisfaction above and beyond general self-efficacy and locus of control.

**Hypothesis 32b:** Feedback self-efficacy will predict performance appraisal session satisfaction above and beyond general self-efficacy.

**Hypothesis 32c:** Feedback self-efficacy will predict performance appraisal session satisfaction above and beyond general locus of control.

**Participation in Developmental Activities.** Participation in developmental activities is another outcome that may be affected by an individual’s feedback self-efficacy. Developmental activities can provide employees with the feedback, knowledge, and skills that are crucial to success. However, as demonstrated by Maurer and colleagues, not all individuals are motivated to participate in these types of self-developmental activities (2003). For example, individuals who are older, who have low self-efficacy, who do not perceive a need for development, who do not perceive benefits to participation, who have less career insight and job involvement, and who have less support have been found to be less motivated to participate in development. Here it is proposed that, due to role of feedback in developmental activities, individuals who are confident to deal with feedback and feedback situations are more likely to participate.

**Hypothesis 33a:** Feedback self-efficacy will be a positive predictor of participation in developmental activities.
The feedback self-efficacy dimension of feedback orientation is also expected to predict participation in developmental activities above and beyond general self-efficacy and locus of control.

**Hypothesis 33b:** Feedback self-efficacy will predict participation in developmental activities above and beyond general self-efficacy.

**Hypothesis 33c:** Feedback self-efficacy will predict participation in developmental activities above and beyond locus of control.

*Feedback Processing.* Feedback processing is expected to be particularly useful in predicting role clarity and self-other discrepancy. Not only is it expected that feedback processing can be useful in predicting these outcomes, it is also expected that it can predict these outcomes above and beyond the more general personality trait of need for cognition due to its feedback specific nature.

*Role Clarity.* Role clarity is the degree to which an employee “possesses a clear and accurate understanding of role expectations and standards” (Brown, Ganesan, & Challagalla, 2001, p. 1044). Having role clarity can have an important impact on an employee’s ability to effectively function within his or her job and can lead to better job performance (Bray & Brawley, 2002). Research has already demonstrated that feedback and feedback seeking can increase an individual’s role clarity (Brown et al., 2001; Jackson & Schuler, 1985; Wanberg & Kammeyer-Mueller, 2000). Taylor et al. (1984) suggest that the conscious and deliberate processing of feedback results in greater role clarity. Thus, it is proposed here that feedback processing is an important predictor of role clarity.
**Hypothesis 34a:** Feedback processing will positively predict role clarity. Feedback processing is also expected to predict role clarity above and beyond the more general individual difference variables of need for cognition and job involvement.

**Hypothesis 34b:** Feedback processing will predict role clarity above and beyond need for cognition.

**Hypothesis 34c:** Feedback processing will predict role clarity above and beyond job involvement.

*Self-Other Discrepancy.* A popular trend in performance management is the use of 360 or multi-rater feedback systems. Multi-rater feedback gives individuals the opportunity to rate how they view their own performance and compare this to supervisor’s, subordinate’s, and peer’s perceptions of their performance. In general, it has been shown that self-ratings tend to be somewhat more favorable than supervisor, peer, and subordinate ratings (Atkins & Wood, 2002; Fletcher & Baldry, 1999). Research on multi-rater feedback reveals that when there is a high discrepancy between self and other ratings, feedback is seen as less accurate and useful and leads to more negative reactions (Brett & Atwater, 2001). However, individuals who perceive themselves as having substantial knowledge of the performance appraisal system have been found to have smaller self-other discrepancies (Williams & Levy, 1992). Here it is proposed that the self-other discrepancy is also smaller for those individuals who tend to engage in greater feedback processing. Individual’s who spend more time thinking about the feedback they receive and processing it deeply should be more likely to have an
accurate view of their performance and thus have a smaller discrepancy between their self and other ratings.

**Hypothesis 35a:** Feedback processing will negatively predict self-other discrepancies.

The feedback processing dimension is also expected to predict self-other discrepancies above and beyond the more general personality characteristics of need for cognition and job involvement.

**Hypothesis 35b:** Feedback processing will predict self-other discrepancies above and beyond need for cognition.

**Hypothesis 35c:** Feedback processing will predict self-other discrepancy above and beyond job involvement.

*Feedback Orientation Overall.* In addition to exploring the criterion-related validity of the individual dimensions, the criterion-related validity of feedback orientation as a whole is also examined. Feedback orientation is expected to be particularly useful in predicting feedback seeking. In addition, it is expected to predict this outcome above and beyond the feedback environment and learning goal orientation.

*Feedback Seeking.* Ashford and Cummings (1983) suggest individual differences are particularly important as performers shape their feedback environments by seeking feedback, generating their own feedback, processing information, and combining information from multiple sources. Feedback seeking involves acquiring information through active inquiry and indirect monitoring (Ashford & Cummings, 1983). Seeking feedback can help employees have a more realistic view of their performance (Williams
& Johnson, 2000) and contribute to their ability to improve their performance (Renn & Fedor, 2001). Empirical studies have demonstrated the potential impact of learning goal orientation, public self-consciousness, self-esteem, self-efficacy, self-motives, and perceptions of feedback utility and value on feedback seeking (Ashford & Cummings, 1983; Ashford, 1986; Brown, Ganesan, & Challagalla, 2001; Fedor, Rensvold, & Adams, 1992; Levy, Albright, Cawley, & Williams, 1995; Northcraft & Ashford, 1990; Renn & Fedor, 2001; Tuckey et al., 2002; Vandewalle & Cummings, 1997). Many of these constructs explored in relation to feedback seeking are expected to be related to the dimensions of feedback orientation proposed here. Thus, this research suggests that feedback orientation is a positive predictor of feedback seeking.

**Hypothesis 36a:** Feedback orientation will be a positive predictor of feedback seeking behavior.

Feedback orientation, an individual difference variable specific to feedback, is also expected predict feedback seeking behavior above and beyond learning goal orientation due to its feedback-specific nature.

**Hypothesis 36b:** Feedback orientation will predict feedback seeking above and beyond learning goal orientation.

Feedback orientation is also expected to predict feedback seeking above and beyond the feedback environment, a more distal situational factor.

**Hypothesis 36c:** Feedback orientation will predict feedback seeking above and beyond the feedback environment.
Further Discussion of the Validity and Utility of Feedback Orientation and its Dimensions

Each dimension of feedback orientation has now been reviewed in detail with regards to literature supporting its development and variables that should be useful in demonstrating its validity. The literature review demonstrates that the inclusion of each of these dimensions contributes to the content validity of feedback orientation. Finding support for hypotheses regarding convergent and discriminant validity illustrates that feedback orientation and its dimensions are measuring what they are intended to measure. Having a measure that comprehensively covers and effectively measures the domain of feedback-related individual differences such as this is critical for adequately assessing an individual’s feedback orientation. Although admittedly there may be some overlap in the ability of these measures to predict work outcomes, the measurement of each of these dimensions individually has the potential to provide practitioners with useful insight regarding the different facets of an individual’s receptivity to feedback. Furthermore, these separate dimensions can help direct interventions to change an individual’s feedback orientation. For example, if an individual scores low on utility but high on feedback self-efficacy, different coaching would be used than if he or she scored high on utility but low on feedback self-efficacy.

From a research perspective, however, the utility of having these six dimensions depends on whether or not these dimensions are able to differentially predict important work outcomes. Exploring criterion-related validity helps demonstrate the ability of these dimensions to predict important work outcomes. Exploratory analyses using
regression are also done to investigate the ability of these dimensions to uniquely predict outcomes.

In conclusion, the exploration of convergent and discriminant validity provides evidence that the domain that is intended to be measured is actually being measured. Having a measure that effectively captures this domain is useful for practitioners looking to better understand an individual’s feedback orientation. However, in addition to exploring at convergent and discriminant validity, criterion-related validity is also explored. It is important to investigate how feedback orientation and its dimensions can be used to predict important work related outcomes. For research purposes in particular, it is also important to show that these dimensions can uniquely predict outcomes. Thus, in addition to exploring the ability of feedback orientation to predict important work outcomes, exploratory analyses are done to see which dimensions uniquely contribute to prediction of these outcomes.
CHAPTER III

PILOT STUDIES

This chapter describes in detail how items were developed for the Feedback Orientation Scale. In addition, the methods and results of two pilot studies used to refine these items are described. In the first pilot study, subject matter experts were asked to provide feedback on items and dimensions and also to sort items into dimensions. In the second pilot study, items were administered to a sample of working students. Together these pilot studies were used to refine the pool of items developed for the feedback orientation measure and to further explore the dimensionality of the scale. Results of these pilot studies were used to develop a measure that was then validated in the subsequent focal studies.

Item Development for the Feedback Orientation Scale

Deductive scale development is a common approach used to develop new scales. This approach to scale development requires a thorough understanding of the construct to be measured and the relevant literature (Hinkin, 1995). The Feedback Orientation Scale developed here was initially intended to reflect six dimensions (defensiveness, utility, accountability, social awareness, feedback self-efficacy, and feedback processing), which were theoretically derived based on the literature review presented in Chapter two. The
items written for each of these dimensions were developed in a deductive manner based on the dimension definitions and the supporting literature. Other scales used to measure both general and specific individual differences in the feedback process were also reviewed to help generate ideas for creating this new scale. Furthermore, the five guidelines provided by Spector (1992) were followed to help ensure that items were “clear, concise, unambiguous, and as concrete as possible” (p. 23). Spector’s (1992) guidelines are “each item should express one and only one idea (p. 23),” “use both positively and negatively worded items (p.24),” “avoid colloquialisms, expressions, and jargon (p.25),” “consider the reading level of the respondents (p. 25),” and “avoid the use of negatives to reverse the wording of an item (p. 26).” Ten to eleven items for each dimension were initially composed, resulting in 64 items. Pilot tests were used to help identify high quality items and to reduce the number of items per dimension. The manner in which items were written for each dimension is described below.

Defensiveness is an individual’s tendency to dislike receiving feedback and to react to it negatively. When developing items to reflect defensiveness, an emphasis was placed on capturing affective evaluations of feedback. Traditional operationalizations of value, from Vroom’s VIE theory were consulted. Value, the affective evaluation of an outcome, has been operationalized as the attractiveness, desirability, importance, and anticipated satisfaction from an outcome (Van Eerde & Thierry, 1996). Tailoring these operationalizations to feedback, items that were written for the defensiveness dimension were intended to capture individuals’ perceptions of feedback attractiveness, desirability
and importance, as well as anticipated satisfaction from feedback. An example item is “I dislike receiving feedback.”

Utility is defined as an individual’s tendency to believe that feedback is useful in achieving goals or obtaining desired outcomes. Items measuring this dimension reflect the degree to which individuals believe that feedback is related to other outcomes such as work success and goal achievement. To develop these items, operationalizations of instrumentality in Vroom’s VIE theory were reviewed (VanEerde & Thierry, 1996). Instrumentality is typically operationalized as the “relationship between an outcome and another outcome” and the “probability to obtain an outcome” (VanEerde & Thierry, 1996, p. 576). An example of an item developed based on these operationalizations is “Feedback from supervisors can help me advance in a company.”

Accountability refers to an individual’s tendency to feel a sense of obligation to react to and follow up on feedback. In addition to using the definition of this dimension and the supporting literature to develop items, items developed by Leonard (2000) to measure accountability for development were reviewed. The accountability items written here focus on an individual’s sense of responsibility to respond to feedback in particular. An example item is “It is my responsibility to utilize feedback to improve my performance.”

Social awareness refers to an individual’s tendency to use feedback to be aware of other’s views of oneself and to be sensitive to these views. This dimension was developed based on the more general construct of public self-consciousness, the extent to which individuals see themselves as social objects and are aware of the observation of
others in public contexts (Fenigstein, Scheier, & Buss, 1975). Items measuring public self-consciousness guided the development of items reflecting social awareness as it pertains to feedback. Items measuring the social awareness dimension focus on an individual’s belief that feedback can help him or her to be aware of and sensitive to the opinions of others and that responding to feedback can influence how other’s perceive him or her. An example item is “Feedback lets me know how I am perceived by others.”

Feedback self-efficacy refers to an individual’s perceived competence to interpret and respond to feedback appropriately. The definition of this dimension and scales measuring general self-efficacy guided item generation. Most scales on self-efficacy focus on an individual’s confidence and his or her feelings and beliefs about that competence (e.g., Chen, Gully, & Eden, 2001). For the feedback self-efficacy scale, items were written to tap an individual’s confidence in dealing with feedback in particular. An example item is “I am capable of interpreting feedback accurately.”

Feedback processing refers to an individual’s tendency to spend time processing and thinking about feedback. Although there is not much literature focused specifically on feedback processing, it is expected that individuals who spend time processing and thinking about feedback are more likely to listen carefully to feedback, discuss feedback with others, ask questions to clarify feedback, and carefully consider various responses to feedback. Items tapping this dimension focus on the degree to which individuals spend time and effort processing feedback. An example item is “After I get feedback, I spend time thinking about it before I decide how to respond.”
Pilot Study 1

Participants

The first pilot study utilized twenty-two subject matter experts (SME’s). Individuals recruited to serve as SME’s had extensive graduate level training in Industrial/Organizational psychology. Many of these SME’s also had a variety of applied experiences to complement their training. In addition, 10 participants were male and 12 were female and their ages ranged from 22 to 50.

Method

SME’s were provided with definitions of the six proposed Feedback Orientation dimensions and the 64 items developed to reflect these dimensions (in random order). These original 64 items are found in Appendix A. SME’s were asked to provide feedback on 1) the clarity and comprehensiveness of dimension definitions based on their knowledge of the feedback literature and 2) the clarity and readability of items. In addition, SME’s were asked to sort the 64 items (presented in random order) into the six dimensions. This sort was a test of the content validity of the items written to reflect each dimension. The goal of this study was to refine dimensions and the items reflecting these dimensions.

Results

Based on SME’s feedback, revisions were made to dimensions to provide more concise definitions. In particular, the definitions of defensiveness and feedback processing were revised. Initially the definition of feedback processing also encompassed the concept of openness. It was noted by participants that this idea of
openness was already captured by the dimension of defensiveness and did not need to be included here as well. This feedback was helpful for reducing overlap between dimensions and ensuring that each dimension focused on measuring only one quality. Having SME’s sort the items by dimensions was useful for determining whether items were accurately reflecting their intended dimension. Items that were correctly classified under dimensions by at least fifteen of the twenty-two SME’s were retained. Based on this criterion, 73% of the items (47 items) were correctly classified. The remaining 27% of items (17 items) that SME’s had difficulty classifying were examined in more detail. Four of these seventeen items were retained because the misclassification appeared to stem from the overlapping definition between defensiveness and feedback processing (these items are marked with an asterisk); the remaining 13 items were dropped from the scale. Finally, SME’s feedback was used to revise items and clarify ambiguous wording. Three additional items were removed (even though they were correctly classified by SME’s) due to awkward wording noted by SME’s. Thus, in total, 16 items were dropped. These items are marked with a “-“ sign in Appendix A.

As a result of this first pilot study, a total of 48 items were retained for the second pilot study. The other items found in Appendix A, marked with a “+” sign, are additional items that were written for Pilot Study 2. These items were added so that each dimension would have at least 10 to 11 items total with at least 4 items on each dimension being negatively worded. The resulting scale used in the second pilot study had a total of 64 items.
Pilot Study 2

Participants

For the second pilot study (N = 206), undergraduates who were currently employed were recruited to participate for extra credit. These individuals were between the ages of 18 and 53 (X = 22.36). Participants worked an average of 23.11 hours a week and had an average of 6.22 years of work experience. In addition, 75% of participants were female and 25% were male. Caucasians made up 82% of the sample, African Americans 12%, Hispanics 1%, and Asians 4%.

Methods

The purpose of this pilot study was to explore the dimensionality of the proposed Feedback Orientation Scale and to investigate its internal consistency. This study also examined the relationships of items with affect and social desirability to explore other factors that may be driving individuals’ responses to items. Participants were administered the revised Feedback Orientation Scale with the 64-items (see Appendix A) in random order. These items were administered in random order to provide a more stringent test of both the dimensionality and internal consistency of items as suggested by Harrison and McLaughlin (1996). When items are presented in random order, respondents must consider each item individually without the context cues that are generally available when items are grouped with similar other items. Having respondents
consider each item individually helps identify those items that are most effectively capturing a particular dimension and results in a conservative test of reliability.

In addition to completing the Feedback Orientation Scale, participants were also administered a number of other measures. Two of these measures, a measure of social desirability and a measure of affect, were pertinent to the purpose of this study and are described in more detail below.

Positive and Negative Affect. To measure individuals’ moods at the time of completing the survey, the short form of the PANAS, developed and validated by Watson, Clark, and Tellegen (1988), was administered. This scale is comprised of 20 adjective items total, with 10 items tapping positive affect and 10 items tapping negative affect. Participants rated on a scale of 1 (very slightly or not at all) to 5 (extremely) the extent to which the adjectives (e.g., excited, attentive, guilty, scared) described their mood in the present moment. In previous research, evidence of the reliability of the positive and negative mood has been found with alphas of .89 and .85 respectively. Test-retest reliabilities are .54 and .45 respectively. This lower test-retest reliability is reasonable given that the measure is focusing on the individual’s mood at the moment of measurement. In the current study, alphas were .92 for positive affect and .88 for negative affect. Negative affect has been found to be positively related to the Hopkin symptom checklist, the Beck depression inventory, and state anxiety while positive affect negatively relates to these constructs (Watson et al., 1988).

Social Desirability. The balanced inventory of desirable responding (BIDR) was used to measure social desirability (Paulhus, 1984). This 20-item scale has been
validated. It demonstrates acceptable levels of reliability with alphas ranging from .75 to .86 (Paulhus, 1991). In the current study, the alpha for this scale was .72. As noted by Paulhus (1991), this impression management scale has been found to correlate highly with lie scales (e.g., MMPI Lie Scale)

**Results**

Analyses were done to explore the dimensionality of the scale, investigate internal consistency, and examine the relationships of items with affect and social desirability. Prior to analysis, the data were carefully screened and cleaned. Evidence that an individual was hasty or careless in responding led to the removal of that individual’s data. Eight participants who completed the survey in an abnormally short amount of time were also removed from further analyses. These individuals completed over 200 items in less than 15 minutes. This fifteen-minute cutoff was determined after administering the same survey to 5 graduate students and asking them to estimate the amount of time to complete the survey. Based on their feedback, it was determined that any individual completing the survey in less than 15 minutes was responding in a hasty and possibly haphazard manner. In addition to removing these eight participants, three participants with abnormal responses to reverse scored items were also removed from further analyses. It was evident that their responses to reverse scored items were inconsistent with their responses to positively worded items, suggesting that these individuals were not carefully reading items. The resulting sample consisted of 197 participants.

*Exploration of Dimensionality.* To explore the dimensionality of the 64 feedback orientation items, an exploratory factor analysis (EFA) using maximum likelihood (ML)
factor extraction with oblique rotation was done in SPSS. The results of this analysis were obviously driven by reverse scored items and no interpretable solution was found. Negatively worded items tended to load together and did not load on specified factors. Overall, there was no clear pattern or theme in the way items were grouping together outside of the tendency of negatively worded items to load together more frequently. Additional analyses were run including only one or two reverse scored items per dimension. These analyses also resulted in factors driven by item wording (positive versus negative) rather than the content of the items. As noted by Hinkin (1995), the use of reverse scored items is debated in the literature and their inclusion may reduce validity, introduce systematic error, and may result in an artificial response factor consisting of all negatively worded items. Due to the apparent influence of negatively worded items in initial analyses, further analyses focused solely on positively worded items. As delineated below, focusing only on positively worded items resulted in more interpretable data.

Including only positively worded items, another EFA using ML factor extraction and oblique rotation was run using SPSS. The number of factors to be extracted was determined by examining (1) the number of eigenvalues greater than 1, (2) Cattell’s (1966) scree test, (3) the variance explained and residual variance, and (4) the interpretability of the solution.
Table 3

Pilot Study 2 EFA: One to Nine Factor Solutions

<table>
<thead>
<tr>
<th>Factor</th>
<th>Eigenvalue</th>
<th>Cumulative Variance</th>
<th>% Residuals Exceeding .05</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10.25</td>
<td>27%</td>
<td>53%</td>
</tr>
<tr>
<td>2</td>
<td>3.00</td>
<td>35%</td>
<td>42%</td>
</tr>
<tr>
<td>3</td>
<td>1.91</td>
<td>40%</td>
<td>34%</td>
</tr>
<tr>
<td>4</td>
<td>1.68</td>
<td>44%</td>
<td>28%</td>
</tr>
<tr>
<td>5</td>
<td>1.53</td>
<td>48%</td>
<td>20%</td>
</tr>
<tr>
<td>6</td>
<td>1.37</td>
<td>52%</td>
<td>19%</td>
</tr>
<tr>
<td>7</td>
<td>1.27</td>
<td>55%</td>
<td>16%</td>
</tr>
<tr>
<td>8</td>
<td>1.12</td>
<td>58%</td>
<td>13%</td>
</tr>
<tr>
<td>9</td>
<td>1.09</td>
<td>61%</td>
<td>11%</td>
</tr>
</tbody>
</table>
Results of the initial extraction indicated that there were 9 factors with eigenvalues greater than 1.00. An analysis of the scree plot revealed a change in slope between 3 and 8 factors with a sharp bend at 3 factors. Based on eigenvalue and the scree plot analyses, solutions ranging from 3 to 9 factors were explored (see Table 3). In the solutions for 6-9 factors, it was evident that each of these solutions included factors that had substantial loadings from only one or two items. According to Tabachnick and Fidell (1996), “interpretation of factors defined by only one or two variables is hazardous” and should be avoided (p. 622). The exclusion of these factor solutions from further consideration is also supported by that fact that the 6th through 9th factors did not account for a great deal of additional variance. To determine which remaining solution was the best fit, the interpretability of each of the remaining solutions (i.e., 3, 4, and 5 factor solutions) was examined, in addition to the variance accounted for and the residual correlation matrices. The five-factor solution emerged as the most interpretable solution. This solution accounted for 48% of the variance and only 20% of the residuals exceeded .05. In contrast, the three and four factor solutions were more difficult to interpret. In addition, these solutions were respectively found to have 34% and 28% of the residuals exceeding .05 (suggesting the presence of additional factors).

The five-factor solution can be found in Table 4. The five factors are defensiveness, utility, accountability, social awareness, and feedback self-efficacy. The items written for the processing dimension loaded across factors and were dropped from additional analyses. In addition, items that did not load on their intended factors were
also dropped. All items removed from subsequent analyses are marked with an asterisk in Table 4. Items with factor loadings of .30 or greater that loaded on their intended factors were retained (Crossloadings were examined but not used to eliminate items until the next EFA).
Table 4:

**Pilot Study 2 EFA: Five-Factor Solution**

<table>
<thead>
<tr>
<th>Items</th>
<th>Uti</th>
<th>Def</th>
<th>Acc</th>
<th>Sel</th>
<th>Soc</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feedback is critical for improving performance.</td>
<td>.85</td>
<td>-.06</td>
<td>.12</td>
<td>-.07</td>
<td>-.06</td>
</tr>
<tr>
<td>Feedback contributes to my success at work.</td>
<td>.85</td>
<td>.18</td>
<td>-.08</td>
<td>-.06</td>
<td>.00</td>
</tr>
<tr>
<td>Feedback from supervisors can help me advance in a company.</td>
<td>.63</td>
<td>.08</td>
<td>-.10</td>
<td>.00</td>
<td>.16</td>
</tr>
<tr>
<td>I generally follow up on the feedback I receive.</td>
<td>.54</td>
<td>-.06</td>
<td>.37</td>
<td>.08</td>
<td>-.14</td>
</tr>
<tr>
<td>To develop my skills at work, I rely on feedback.</td>
<td>.50</td>
<td>.31</td>
<td>-.05</td>
<td>.05</td>
<td>-.09</td>
</tr>
<tr>
<td>I find that feedback is critical for reaching my goals.</td>
<td>.44</td>
<td>.15</td>
<td>.22</td>
<td>-.09</td>
<td>-.13</td>
</tr>
<tr>
<td>Feedback is very useful for personal improvement.*</td>
<td>.25</td>
<td>.06</td>
<td>.15</td>
<td>.03</td>
<td>.27</td>
</tr>
<tr>
<td>I am able to develop professionally using the feedback I receive.*</td>
<td>-.10</td>
<td>.10</td>
<td>.27</td>
<td>.01</td>
<td>.35</td>
</tr>
<tr>
<td>I get defensive when I receive feedback.</td>
<td>-.01</td>
<td>.76</td>
<td>-.03</td>
<td>.00</td>
<td>-.06</td>
</tr>
<tr>
<td>Getting feedback makes me uncomfortable.</td>
<td>.15</td>
<td>.72</td>
<td>-.21</td>
<td>.18</td>
<td>.05</td>
</tr>
<tr>
<td>My initial response to feedback is generally negative.</td>
<td>.05</td>
<td>.68</td>
<td>-.15</td>
<td>-.04</td>
<td>.07</td>
</tr>
<tr>
<td>I try to avoid getting feedback from my supervisors and/or coworkers.</td>
<td>.01</td>
<td>.56</td>
<td>-.10</td>
<td>.09</td>
<td>-.05</td>
</tr>
<tr>
<td>I dislike receiving feedback.</td>
<td>.04</td>
<td>.56</td>
<td>.18</td>
<td>.08</td>
<td>-.19</td>
</tr>
<tr>
<td>I hold myself accountable to respond to feedback appropriately.</td>
<td>.07</td>
<td>-.24</td>
<td>.65</td>
<td>.28</td>
<td>-.14</td>
</tr>
<tr>
<td>It is my responsibility to apply feedback to improve my performance.</td>
<td>-.08</td>
<td>.05</td>
<td>.58</td>
<td>-.01</td>
<td>.23</td>
</tr>
<tr>
<td>When given feedback, I make sure to apply it in the future.</td>
<td>.21</td>
<td>.03</td>
<td>.47</td>
<td>-.05</td>
<td>.10</td>
</tr>
<tr>
<td>If my supervisor gives me feedback, it is my responsibility to respond to it.</td>
<td>.14</td>
<td>-.11</td>
<td>.46</td>
<td>.02</td>
<td>-.10</td>
</tr>
<tr>
<td>I don’t feel a sense of closure until I respond to feedback.</td>
<td>.08</td>
<td>-.18</td>
<td>.39</td>
<td>.14</td>
<td>-.22</td>
</tr>
<tr>
<td>I would feel irresponsible if I did not use the feedback I received to develop myself.*</td>
<td>.09</td>
<td>-.03</td>
<td>.19</td>
<td>.10</td>
<td>.20</td>
</tr>
<tr>
<td>I believe that I have the ability to deal with feedback effectively.</td>
<td>.01</td>
<td>.04</td>
<td>.23</td>
<td>.63</td>
<td>.01</td>
</tr>
<tr>
<td>Compared to others, I am more competent at handling feedback.</td>
<td>-.10</td>
<td>.16</td>
<td>-.08</td>
<td>.61</td>
<td>.06</td>
</tr>
<tr>
<td>I feel confident to deal with situations where I will be given feedback.</td>
<td>.03</td>
<td>.28</td>
<td>.14</td>
<td>.43</td>
<td>-.01</td>
</tr>
<tr>
<td>I feel self-assured when dealing with feedback.</td>
<td>.00</td>
<td>.13</td>
<td>.01</td>
<td>.38</td>
<td>.10</td>
</tr>
<tr>
<td>Even when I get negative feedback, I am certain I can handle it.*</td>
<td>-.10</td>
<td>.43</td>
<td>.15</td>
<td>.38</td>
<td>-.03</td>
</tr>
<tr>
<td>I know how to respond when I am given feedback.*</td>
<td>-.14</td>
<td>.16</td>
<td>.44</td>
<td>-.08</td>
<td>.23</td>
</tr>
<tr>
<td>Feedback lets me know how I am perceived by others.</td>
<td>.04</td>
<td>-.12</td>
<td>-.24</td>
<td>.17</td>
<td>.85</td>
</tr>
<tr>
<td>Using feedback, I am more aware of what people think of me.</td>
<td>-.02</td>
<td>.04</td>
<td>.09</td>
<td>.17</td>
<td>.50</td>
</tr>
<tr>
<td>I try to be aware of what other people think of me.</td>
<td>.18</td>
<td>-.27</td>
<td>.11</td>
<td>.03</td>
<td>.43</td>
</tr>
<tr>
<td>Responding to feedback helps me make a good impression.*</td>
<td>.65</td>
<td>-.12</td>
<td>-.22</td>
<td>.26</td>
<td>.08</td>
</tr>
<tr>
<td>My coworkers and supervisor will notice the changes I make as a result of their feedback.*</td>
<td>.33</td>
<td>.14</td>
<td>.28</td>
<td>-.19</td>
<td>.14</td>
</tr>
<tr>
<td>Others will perceive me more favorably if I respond to their feedback.*</td>
<td>.32</td>
<td>-.25</td>
<td>.02</td>
<td>.34</td>
<td>.13</td>
</tr>
<tr>
<td>I consider several different options before responding to feedback.*</td>
<td>.01</td>
<td>.02</td>
<td>-.04</td>
<td>-.03</td>
<td>.30</td>
</tr>
<tr>
<td>Feedback should be thought about in depth.*</td>
<td>.39</td>
<td>-.13</td>
<td>.22</td>
<td>-.18</td>
<td>.19</td>
</tr>
<tr>
<td>I listen carefully to feedback.*</td>
<td>.35</td>
<td>.18</td>
<td>.23</td>
<td>-.06</td>
<td>.18</td>
</tr>
<tr>
<td>I am capable of interpreting feedback accurately.*</td>
<td>.00</td>
<td>.14</td>
<td>.20</td>
<td>.21</td>
<td>.14</td>
</tr>
<tr>
<td>I often discuss the feedback I get.*</td>
<td>-.09</td>
<td>.03</td>
<td>.45</td>
<td>.18</td>
<td>-.01</td>
</tr>
<tr>
<td>I often ask questions to better understand feedback I receive.*</td>
<td>-.02</td>
<td>.01</td>
<td>.37</td>
<td>.39</td>
<td>.06</td>
</tr>
<tr>
<td>After I get feedback, I spend time thinking about it before I decide how to respond.*</td>
<td>-.01</td>
<td>-.01</td>
<td>.40</td>
<td>-.12</td>
<td>.22</td>
</tr>
</tbody>
</table>

*Note.* The highest factor loading for each item is bolded. In addition, any cross loadings greater than .30 are also bolded. Items removed from the scale are marked with an asterisk. Uti=Utility; Def=Defensiveness; Acc=Accountability; Sel=Feedback Self-Efficacy; Soc=Social Awareness.
Next, an additional EFA using ML factor extraction and oblique rotation was run using SPSS including only those items retained. Analyses of the scree plot and eigenvalues support a five-factor solution, which accounts for 57% of the variance (see Table 5). Items with loadings of .30 or greater on the intended factor and crossloadings less than .30 on other factors were retained. Based on these criteria, two additional items were deleted. These items are marked with an asterisk in Table 5.
Table 5

*Pilot Study 2 EFA: Five-Factor Solution with Items Retained*

<table>
<thead>
<tr>
<th></th>
<th>Def</th>
<th>Uti</th>
<th>Acc</th>
<th>Sel</th>
<th>Soc</th>
</tr>
</thead>
<tbody>
<tr>
<td>I get defensive when I receive feedback.</td>
<td>.80</td>
<td>-.03</td>
<td>.00</td>
<td>-.07</td>
<td>-.07</td>
</tr>
<tr>
<td>Getting feedback makes me uncomfortable.</td>
<td>.73</td>
<td>.05</td>
<td>-.16</td>
<td>.06</td>
<td>.15</td>
</tr>
<tr>
<td>My initial response to feedback is generally negative</td>
<td>.65</td>
<td>.05</td>
<td>-.14</td>
<td>.04</td>
<td>-.04</td>
</tr>
<tr>
<td>I try to avoid getting feedback from my supervisors and/or</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>coworkers.</td>
<td>.59</td>
<td>-.01</td>
<td>-.06</td>
<td>-.04</td>
<td>.01</td>
</tr>
<tr>
<td>I dislike receiving feedback.</td>
<td>.58</td>
<td>.08</td>
<td>.08</td>
<td>-.07</td>
<td>.02</td>
</tr>
<tr>
<td>I feel confident to deal with situations where I will be given</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>feedback.*</td>
<td>.30</td>
<td>-.04</td>
<td>.18</td>
<td>.08</td>
<td>.30</td>
</tr>
<tr>
<td>Feedback is critical for improving performance.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feedback contributes to my success at work.</td>
<td>.06</td>
<td>.87</td>
<td>-.09</td>
<td>-.01</td>
<td>.02</td>
</tr>
<tr>
<td>Feedback from supervisors can help me advance in a company.</td>
<td>.06</td>
<td>.52</td>
<td>.00</td>
<td>.14</td>
<td>-.01</td>
</tr>
<tr>
<td>To develop my skills at work, I rely on feedback.</td>
<td>.28</td>
<td>.47</td>
<td>-.01</td>
<td>-.05</td>
<td>.05</td>
</tr>
<tr>
<td>I find that feedback is critical for reaching my goals.</td>
<td>.21</td>
<td>.44</td>
<td>.23</td>
<td>-.08</td>
<td>-.17</td>
</tr>
<tr>
<td>I hold myself accountable to respond to feedback appropriately.</td>
<td>-.16</td>
<td>-.01</td>
<td>.84</td>
<td>-.03</td>
<td>.08</td>
</tr>
<tr>
<td>If my supervisor gives me feedback, it is my responsibility to</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>respond to it.</td>
<td>.02</td>
<td>.03</td>
<td>.55</td>
<td>-.01</td>
<td>-.10</td>
</tr>
<tr>
<td>I don’t feel a sense of closure until I respond to feedback.</td>
<td>-.13</td>
<td>.08</td>
<td>.39</td>
<td>-.09</td>
<td>.04</td>
</tr>
<tr>
<td>It is my responsibility to apply feedback to improve my</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>performance.</td>
<td>.07</td>
<td>.13</td>
<td>.30</td>
<td>.20</td>
<td>.04</td>
</tr>
<tr>
<td>When given feedback, I make sure to apply it in the future.*</td>
<td>-.01</td>
<td>.45</td>
<td>.18</td>
<td>.08</td>
<td>.04</td>
</tr>
<tr>
<td>Using feedback, I am more aware of what people think of me.</td>
<td>.21</td>
<td>-.18</td>
<td>.09</td>
<td>.87</td>
<td>-.21</td>
</tr>
<tr>
<td>Feedback lets me know how I am perceived by others.</td>
<td>-.17</td>
<td>.15</td>
<td>-.28</td>
<td>.65</td>
<td>.22</td>
</tr>
<tr>
<td>I try to be aware of what other people think of me.</td>
<td>-.21</td>
<td>.16</td>
<td>.03</td>
<td>.58</td>
<td>-.08</td>
</tr>
<tr>
<td>Compared to others, I am more competent at handling feedback.</td>
<td>-.01</td>
<td>-.05</td>
<td>-.07</td>
<td>-.13</td>
<td>.85</td>
</tr>
<tr>
<td>I believe that I have the ability to deal with feedback</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>effectively.</td>
<td>.04</td>
<td>.00</td>
<td>.29</td>
<td>.12</td>
<td>.45</td>
</tr>
<tr>
<td>I feel self-assured when dealing with feedback.</td>
<td>.10</td>
<td>-.02</td>
<td>.12</td>
<td>.01</td>
<td>.40</td>
</tr>
</tbody>
</table>

Note. The highest factor loading for each item is bolded. In addition, any cross loadings greater than .30 are also bolded. Items removed from the scale are marked with an asterisk. Intercorrelations between dimensions are at the bottom of the table. Uti=Utility; Def=Defensiveness; Acc=Accountability; Sel=Feedback Self-Efficacy; Soc=Social Awareness.
The final analysis used to explore the dimensionality of these items was a confirmatory factor analysis (CFA) done in Mplus using ML estimation. Using CFA provides further insight into the extent to which a five-factor solution appropriately fits the data. The specific model tested is found in Figure 3. To determine the fit of the five-factor model, both absolute and relative fit indices were examined. Absolute fit indices include $\chi^2$, Standardized Root Mean Square Residual (SRMSR), and the Root Mean Square Error Approximation (RMSEA). For the $\chi^2$ test of fit, a significant value indicates poor model fit. However, the assumptions for this test are almost never met and it is often not an adequate test of model fit (Hoyle, 2000). Instead, researchers often divide $\chi^2$ by the degrees of freedom and look for a 2:1 ratio or less. For the current model, dividing the Chi-Square ($\chi^2 = 301.68$) by degrees of freedom (df = 165) results in a value that is less than two. When using RMSEA as a test of model fit, Browne and Cudeck (1993) suggest that values of .05 and lower indicate a close fit, .08 indicates marginal fit, and .10 is poor fit. Hu and Bentler suggest that RMSEA close to .06 is acceptable. For this model, RMSEA was found to be .07, which suggests a reasonable fit according to the criteria described above. For SRMR, less than .10 is indicative of a good fit according to Quintana and Maxwell (1998) and less than .08 is ideal according to Hu and Bentler (1999). SRMR for the model was .08, suggesting a reasonable fit.

Relative fit indices include the comparative fit index (CFI) and Tucker Lewis Index (TLI). According to Hu and Bentler (1999), values of .95 or higher indicate acceptable fit. For the proposed model, CFI was .88 and TLI was .86. Based on research by Harrison and McLaughlin (1996) it can be expected that these fit indices will improve in
future administrations of the instrument where items are grouped by dimension rather than in random order. Grouping items allows respondents to more effectively retrieve information pertinent to the topic and thus, more effectively respond to the item.
Feedback Orientation

Feedback Self-Efficacy

Social Awareness

Accountability

Utility

Defensiveness

Figure 3

Pilot Study 2 Model Tested Using CFA
Examination of Internal Consistency. As described above, factor analyses supported five of the six dimensions proposed and three to five items were retained for each dimension. The reliability of each of these scales was examined to guide additional revisions to the scale. The utility dimension, composed of 5 items, was found to have an alpha of .81. The defensiveness scale, composed of 5 items, was found to have an alpha of .80. The social awareness scale, composed of 3 items, was found to have an alpha of .70. The self-efficacy scale, composed of 3 items, was found to have an alpha of .62. The accountability scale, composed of 4 items, was found to have an alpha of .59. The lower reliabilities of the social awareness, self-efficacy, and accountability scales can be attributed to two things. First, each of these scales had fewer items. Using Spearman-Brown’s formula, bringing each of these scales up to five items could potentially increase reliabilities to .64, .73, and .80 respectively. Thus, additional items were written for each scale prior to focal studies to ensure that each scale has 5 items. The second factor contributing to the lower reliabilities in this study was the presentation of items in random order (Harrison & McLaughlin, 1996). This was done to provide a more conservative test of the dimensionality and internal consistency of items. Future administrations of the Feedback Orientation Scale group the items by dimension. Not only does this have the potential to increase reliability, it can also improve model fit (as mentioned above) and enhance discriminate validity. According to Harrison and McLaughlin, the improvements in the statistical properties of a scale that occur when items are grouped are a result of enhancing the “within-set commonalities and between-
set distinctions that guide respondents to retrieve relevant caches of information” (1996, p. 329).

The Influence of Affect and Social Desirability. Correlations between the retained feedback orientation items, positive affect (PA), negative affect (NA), and social desirability were examined. Although some items significantly correlated with these measures, all of these correlations were less than .25. Those items with correlations greater than .20 were examined in more detail. Two items were found to have correlations with PA greater than .20, both of these items were on the self-efficacy scale. Two items were found to have correlations with Social Desirability that were greater than .20, both of these items were on the defensiveness scale. To further explore the influence of affect and social desirability, items were combined into composite scale scores for each dimension. Each dimension was then correlated with PA, NA and Social Desirability. It was found that Self-efficacy related to PA with a correlation of .29 and defensiveness related to social desirability with a correlation of .23. Although these are only small to moderate size correlations, measures of affect and social desirability are included in Focal Study 1 to monitor the potential influence of these relationships on the validity of these scales.

Summary of Pilot Studies

The first pilot study asked SMEs to provide feedback for revising the six proposed feedback orientation dimensions and the initial pool of 64 items. After revising dimension definitions and eliminating items based on SME feedback, additional items were written to once again create an initial pool of 64 items. Administering these 64
items to a large sample of students, the dimensionality and reliability of items were explored to guide additional revisions of the scale in Pilot Study 2. As a result of analyses, one dimension of the originally proposed six feedback orientation dimensions was eliminated. Items from the feedback processing dimension loaded across other dimensions, suggesting that feedback processing may be more of an outcome of feedback orientation rather than a dimension of it. In addition to eliminating this dimension, the analyses of dimensionality and reliability helped identify the strongest items for the remaining dimensions. Five items were retained for the utility dimension, five for the defensiveness scale, three for the social awareness scale, three for the feedback self-efficacy scale, and four for the accountability scale. Before the first focal study, additional items were written to ensure that each scale had 5 items. In addition, one reverse scored item was retained for each dimension to act as a “cognitive speed bump.” These reverse scored items were not intended to be used in analyses, however, they were added to encourage participants to read carefully and to help identify careless responding. After the revisions made in these two pilot studies, the resulting Feedback Orientation Scale had 5 dimensions and 30 items.
CHAPTER IV

FOCAL STUDIES

The previous chapter described (1) the development of items and (2) pilot studies used to refine items and explore the dimensionality feedback orientation. This chapter describes two focal studies that investigated the reliability and validity of the Feedback Orientation Scale. The first focal study was used to find further support for the factor structure suggested by pilot study data. In addition, reliability, convergent validity, discriminant validity, and criterion-related validity were also explored. The second focal study examined the usefulness of the measure in an applied setting and further investigated convergent and criterion-related validity for the scale.

Focal Study 1

Participants

For the first focal study (N = 300), undergraduates who were currently employed were recruited to participate for extra credit. These individuals were between the ages of 18 and 54 (X = 22.29). Participants worked on average 23.55 hours a week, had on average 6.41 years of work experience, and worked with their current supervisor for on average 1.68 years. In addition, 73% of participants were female and 27% were male.
Caucasians made up 84% of the sample, African Americans 8%, Hispanics 2%, Asians 2%, and 4% other. The supervisors of these participants were recruited as well, with the participants’ permission, and asked to complete a survey. A total of 142 supervisors returned surveys resulting in 120 matches of supervisor and subordinate data. These 120 supervisors were between the ages of 21 and 70 (X = 39.57) and had on average 20.15 direct reports. In addition, 55% of supervisors were female and 45% were male. Caucasians made up 92% of the sample, African Americans 4%, Hispanics 1%, and 3% other.

*Methods*

Participants were asked to complete a number of measures online, which are described in more detail below. Participants were also given materials for their supervisor to complete. Supervisors were asked to rate their subordinate’s performance, feedback seeking, and participation in developmental activities. The supervisor was given the option of completing the survey online or on paper and was provided with a stamped envelope addressed to the researcher to return the completed paper surveys directly to the researcher.

*Measures*

Each measure used in this study is described in detail below. With the exception of the Feedback Orientation Scale, all of these measures have been used previously in research and are established measures of the constructs of interest. Literature supporting the validity and reliability of each of these measures is cited. All items were responded to on a scale of 1 (strongly disagree) to 5 (strongly agree) unless otherwise noted. The
Feedback Orientation Scale can be found in Appendix B. All other scales administered to participants can be found in Appendix C and the scales administered to the participant’s supervisor can be found in Appendix D.

Feedback Orientation Scale. The measure developed based on the results of the two pilot studies above was administered to participants (see Appendix B). This measure had 30 items and was composed of five dimensions (defensiveness, utility, accountability, social awareness, and feedback self-efficacy). Items were presented to participants grouped by dimension, however, no dimension labels were provided. Presenting items grouped in this manner has been found to increase internal consistency, loadings, and discriminant validity (Harrison & McLauglin, 1996).

Feedback Environment Scale. To measure subordinates’ perceptions of the feedback environment, the 32-item Supervisor Feedback Environment Scale was used (Steelman et al., 2004). Steelman et al. (2004) reports that this scale has an overall alpha of .96 and is composed of seven facets: source credibility ($\alpha = .88$), feedback quality ($\alpha = .92$), feedback delivery ($\alpha = .86$), frequency of favorable feedback ($\alpha = .88$), frequency of unfavorable feedback ($\alpha = .85$), source availability ($\alpha = .82$), and promoting feedback seeking ($\alpha = .84$). In this study, the scale has an overall alpha of .94. The alphas for its facets were as follows: source credibility ($\alpha = .83$), feedback quality ($\alpha = .89$), feedback delivery ($\alpha = .69$), frequency of favorable feedback ($\alpha = .90$), frequency of unfavorable feedback ($\alpha = .79$), source availability ($\alpha = .77$), and promoting feedback seeking ($\alpha = .76$). Support has also been found for its construct validity (Norris-Watts & Levy, 2004; Rosen et al., 2006; Steelman et al., 2004). The feedback environment measure has been
found to relate to a number of important work related outcomes including satisfaction with feedback, motivation to use feedback, and feedback seeking (Steelman et al., 2004).

*Learning Goal Orientation.* To measure learning goal orientation, Button, Mathieu, and Zajac’s (1996) scale was used. This scale is composed of eight items (α = .81) and has been established as a reliable and valid measure of learning goal orientation (Button et al., 1996). The alpha in the current study is consistent with previous research (α = .87). Button et al. (1996) found that learning goal orientation is positively related to locus of control and predicts GPA. An example item is “When I fail to complete a difficult task, I plan to try harder the next time I work on it.”

*Feedback Seeking.* Items to measure feedback seeking were based upon Albright-Funderburg (1995), Ashford (1986), and Steelman (1997). Based on these sources, four self-report items and two supervisor items were developed. The self-report items are “I often ask my supervisor (co-workers) how he or she thinks I am performing” and “Compared to other employees, I ask for more feedback from my supervisor (co-workers) than they do.” The items rated by supervisors are “Often asks how I think he/she is performing” and “Compared to other employees, asks for more feedback.” This scale has been found to be reliable with an alpha of .86 (Albright-Funderburg, 1995). An alpha of .87 was found in the current study for self-reported feedback seeking and an alpha of .70 was found for supervisor reported feedback seeking. Feedback seeking has been found to be related to the promotion of feedback seeking dimension of the feedback environment scale (Steelman et al., 2004) and attitudes about supervisor and peer evaluations (Funderberg, 1995).
Performance. A performance measure developed by Williams and Anderson (1991) was used to assess both self-reported and supervisor reported performance. This performance measure has three dimensions: task performance, Organizational Citizenship Behaviors (OCBs) directed at the individual (OCBIs), and OCBs directed at the organization (OCBOs). Williams and Anderson (1991) report reliabilities of .91, .88, and .75 respectively. Alphas in the current study were .81, .80, and .68 for self-ratings of performance and .77, .83, .77 for supervisor ratings of performance. These three dimensions have been found to relate to affective commitment; and OCBI and task performance have been found to relate to job satisfaction (Rosen et al., 2006).

“Adequately completes assigned duties” is a sample item measuring task performance, “Helps others who have a heavy work load” is a sample OCBI item, and “Conserves and protects organizational property” is a sample OCBO item.

Participation in Developmental Activities. Participation in developmental activities was rated by student employees and supervisors of each employee using a subset of items from a 26-item measure described in Maurer et al. (2003). This measure asks supervisors to rate the frequency with which their subordinates engaged in a number of developmental activities within the last year. An example item is “Taken a voluntary career-related training class, work shop, or seminar.” This scale has demonstrated an acceptable level of reliability with an alpha of .90. In this study, the alpha was .88 for student self-ratings and .86 for supervisor ratings. Participation in development has been found to be related to age, self-efficacy, perceived need for development, perceived
benefits of participation, career insight and job involvement, and support (Maurer et al., 2003)

Resistance to Change. To measure resistance to change, Oreg’s (2003) seventeen-item scale was used. This instrument has subscales including emotional reactions (e.g., “When I am informed of a change of plans, I tense up a bit.”), short-term thinking (e.g., “Changing plans seems like a real hassle to me.”), and cognitive rigidity (e.g., “I don’t change my mind easily.”). The total scale ($\alpha = .87 - .92$) and the individual dimensions ($\alpha = .69 - .89$) have demonstrated acceptable levels of reliability (Oreg, 2003). In this study, the overall scale was found to have an alpha of .84. Support has also been found for the validity of this scale (Oreg, 2003). In addition to finding support for the factor structure of the scale, Oreg (2003) found that resistance to change is related to sensation seeking, tolerance for ambiguity, and risk aversion. Furthermore, resistance to change was found to predict resistance behavior in a variety of settings.

Public Self-Consciousness. Fenigstein, Scheier, and Buss’s (1975) scale of public self-consciousness was used to measure the extent to which individuals see themselves as social objects and are aware of the observation of others in public contexts. This scale is composed of seven items and has demonstrated acceptable levels of test-retest reliability ($r = .84$) and internal consistency ($\alpha = .69$ to 81). Reliability in the current study is consistent with previous research ($\alpha = .76$). The validity of this scale has been explored in a number of studies (Cramer, 2000; Fenigsten et al., 1975; Nystedt & Ljungberg, 2002; Turner, Carver, Scheier, & Ickes, 1978) as well, and it has been found to positively relate
to self-monitoring (Turner et al., 1978) and feedback seeking (Levy et al., 1995). An example item is “I’m concerned about what other people think of me.”

**Self-Efficacy.** Self-efficacy was measured using the new general self-efficacy scale developed by Chen, Gully, and Eden (2001). This eight-item unidimensional scale has demonstrated acceptable levels of reliability with alphas ranging from .85 to .88 and test re-test reliability ranging from .62 to .65. Consistent with previous research, the alpha in this study was .89. Evidence for this scale’s validity is provided by Chen et al., (2001). This general measure of self-efficacy is predictive of specific self-efficacy for a variety of contexts (Chen et al., 2001). An example item is “I believe I can succeed at most any endeavor to which I set my mind.”

**Performance Appraisal Session Satisfaction.** Performance appraisal session satisfaction was measured using a 3-item measure developed by Giles and Mossholder (1990). This scale has been found to be reliable: Keeping and Levy (2000) report an alpha of .95 and in this study the alpha was found to be .93. Giles and Mossholder (1990) found that follow up, participation, and goal setting were positively related to session satisfaction while criticism and complexity were negatively related. An example item is “I felt quite satisfied with my last review discussion.”

**Performance Appraisal Utility Perceptions.** Perceptions of performance appraisal utility were measured using a 4-item measure developed by Greller (1978). Consistent with previous research ($\alpha = .91$; Keeping & Levy, 2000), the alpha of this scale was .94 in the current study. Ownership/participation was found by Greller (1978) to be positively related to utility perceptions. Keeping and Levy (2000) uncovered a positive relationship
between utility and feedback accuracy. An example item is “The performance review helped me learn how I can do my job better.”

*Role Clarity.* Role clarity was measured using Rizzo, House, and Lirtzman’s (1970) measure of role ambiguity. This measure is 6 items and has demonstrated acceptable levels of reliability with alphas ranging from .71 to .95 (Fields, 2002). Consistent with previous research, the alpha in this study was .83. Role ambiguity has been found to have a positive relationship with role conflict and job-induced anxiety (Rizzo et al., 1970). An example item is “I know what my responsibilities are.”

*Positive and Negative Affect.* The short form of the PANAS developed and validated by Watson, Clark, and Tellegen (1988) was administered to measure affect. Alphas in this study were .90 for positive affect and .88 for negative affect. Participants rated, on a scale of 1 (very slightly or not at all) to 5 (extremely), the extent to which adjectives (e.g., excited, attentive, guilty, scared) described their mood in the present moment.

*Social Desirability.* The impression management scale of Paulhus’s (1984) balanced inventory of desirable responding (BIDR) was used to measure social desirability. This 20-item scale has been validated and it has been found to have acceptable levels of reliability with alphas ranging from .75 to .86 (Paulhus, 1991). In the current study, the alpha was found to be slightly lower than previous research ($\alpha = .55$).

*Intentions to Use Feedback.* To measure “intentions to use feedback,” items were adapted from Smither et al., (1995) and Steelman et al. (2004). The four resulting items read as follows: “I intend to change my work behaviors based on feedback I have received from my coworkers (supervisor)” and “I plan to improve my job performance
based on feedback that has been provided to me by my coworker (supervisor).” The alpha for this scale was .79 in the current study. Intentions to use feedback have been found to relate to the feedback environment (Steelman et al., 2004).

Locus of Control. Locus of control, an individual’s tendency to attribute outcomes to internal (e.g., ability) versus external (e.g., luck) causes, was measured using Spector’s (1988) work locus of control scale. This scale is different from Rotter’s (1966) traditional measure of locus of control because it was developed to be a domain-specific measure that directly applies to an organizational setting. Adequate reliability has been found, with coefficient alphas between .75 and .85. Consistent with previous research, the alpha in this study was .84. Evidence for scale validity is provided by Spector (1988) who reports the scale is related to general measures of locus of control and work related variables like satisfaction, commitment, and perceived influence (Spector, 1988). Two example items are “Promotions are given to employees who perform well on the job (reverse scored)” and “Getting the job you want is mostly a matter of luck.”

Self-Monitoring. Self-monitoring was measured using a well-established scale revised by Lennox and Wolfe (1984). This 13-item scale is composed of two subscales: Ability to modify self-presentation (α = .77) and sensitivity to expressive behavior of others (α = .70). Lennox and Wolfe (1984) report an overall alpha of .75. In the current study, the overall alpha was .83, the alpha for the ability to modify self-presentation subscale (the scale used to test hypotheses) was .81, and the alpha for sensitivity to expressive behavior subscale was .79. Unlike the original measure of self-monitoring, this revised scale is not positively related to social anxiety (Lennox & Wolfe, 1984). An example
item from the ability to modify self-presentation subscale is “In social situations, I have the ability to alter my behavior is something else is called for.” An example item from the sensitivity to expressive behavior of others subscale is “I am often able to read people’s true emotions correctly through their eyes.”

Protestant Work Ethic. A scale developed by Mirels and Garrett (1971) was used to measure protestant work ethic, which is an individual’s tendency to feel an almost moral obligation to engage in hard work. This scale is more representative of the content domain than other available scales (Furnham, 1990). Consistent with prior research (Mudrack, 1999; \( \alpha = .71 \)), the alpha of this scale was .73 in the current study. This scale has been found to negatively relate to locus of control and morality conscious guilt (Mirels & Garrett, 1971). Example items are “Our society would have fewer problems if people had less leisure time” and “A distaste for hard work usually reflects a weakness of character.”

Fear of Negative Evaluation Scale. Fear of negative evaluation was measured using Leary’s (1983) brief version of the fear of negative evaluations scale. Leary (1983) found that this 12-item scale is reliable (\( \alpha = .90 \)) and is highly correlated with the original scale (\( r = .96 \)). In the current study, the alpha for this scale was .92. Leary (1983) and Rodenbaugh et al. (2004) report evidence regarding the validity of this scale. Atlas (1994) found that fear of negative evaluation and sensitivity to criticism were positively correlated (\( r = .49 \)). An example item is “I am frequently afraid of other people noticing my shortcomings.”
Job Involvement. Job involvement is the extent to which an individual is engaged in or preoccupied with his or her job. It was measured using a scale developed and validated by Kanungo (1982). Kanungo (1982) found that this 10-item scale has an alpha of .87 and a test-retest reliability of .85. In the current study, the alpha was .88. Job involvement has been found to relate positively to regular hours work, amount of unpaid overtime, and effort put into the job (Paterson & O’Driscoll, 1990). An example item is “Most of my personal life goals are job-oriented.”

Results

For Focal Study 1, reliability and factor analyses were performed to cross-validate the results found in Pilot Study 2. In addition, correlations between dimensions and the other constructs within the nomological network were analyzed to demonstrate convergent and discriminant validity. Regression analyses were performed to demonstrate criterion and incremental validity. These analyses tested each hypothesis outlined in Tables 1 and 2.

Prior to running these analyses, data were carefully screened and cleaned. Twelve participants who started the survey but did not finish were removed from further analysis. In addition to removing these twelve participants, eight participants who completed the survey faster than the 15-minute cutoff determined in Pilot Study 2 were also dropped prior to the analyses. Reverse scored items were examined to look for careless or haphazard responses by individuals. Those individuals who responded to reverse scored items in inconsistent ways were the same individuals who completed the survey in less than 15 minutes. The resulting useable sample consisted of 280 participants.
Exploration of Dimensionality. To explore in the new sample the dimensionality of the revised 30-item scale that resulted from Pilot Study 2, an exploratory factor analysis (EFA) using maximum likelihood (ML) factor extraction with oblique rotation was done in SPSS. This EFA included only those 25 items from the scale that were not reversed coded. As revealed in the analyses of Pilot Study 2, reverse coded items make it difficult (even impossible at times) to find an interpretable solution. Furthermore, the literature suggests that the inclusion of reverse coded items may reduce validity, introduce systematic error, and may result in an artificial response factor consisting of all negatively worded items (Hinkin, 1995). Including only positively worded items, the number of factors to be extracted was determined using the same criteria used for pilot study one: (1) the number of eigenvalues greater than 1, (2) Cattell’s (1966) scree test, (3) the variance explained and residual variance, and (4) the interpretability of the solution.

Results of the initial extraction indicated that there were 6 factors with eigenvalues greater than 1.00. An analysis of the scree plot revealed a change in slope between 3 and 7 factors with a sharp bend at 5 factors. Based on eigenvalue and the scree plot analyses, solutions ranging from 3 to 7 factors were explored (see Table 6). In the solutions for 6 and 7 factors, it was evident that each of these solutions included factors that were driven by only one or two items. According to Tabachnick and Fidell (1996) the interpretation of these factors should be avoided. To determine which remaining solution was the best fit, the interpretability of each of these solutions was examined in addition to the variance accounted for and the residual correlation matrices.
The five-factor solution accounted for 58% of the variance and only 13% of the residuals exceeded 0.05. The four-factor solution accounted for 54% of the variance and 18% the residuals exceeded 0.05. Finally, a three-factor solution accounted for 47% of the variance and 31% of the residuals exceeded 0.05, suggesting the presence of additional factors. Thus, further examination focused on the four and five factor solutions.

Table 6

_Focal Study 1 EFA: One to Seven Factor Solutions_

<table>
<thead>
<tr>
<th>Factor</th>
<th>Eigenvalue</th>
<th>Cumulative Variance</th>
<th>% Residuals Exceeding 0.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6.85</td>
<td>27%</td>
<td>70%</td>
</tr>
<tr>
<td>2</td>
<td>3.12</td>
<td>40%</td>
<td>45%</td>
</tr>
<tr>
<td>3</td>
<td>1.81</td>
<td>47%</td>
<td>31%</td>
</tr>
<tr>
<td>4</td>
<td>1.65</td>
<td>54%</td>
<td>18%</td>
</tr>
<tr>
<td>5</td>
<td>1.12</td>
<td>58%</td>
<td>13%</td>
</tr>
<tr>
<td>6</td>
<td>1.10</td>
<td>63%</td>
<td>6%</td>
</tr>
<tr>
<td>7</td>
<td>.832</td>
<td>66%</td>
<td>4%</td>
</tr>
</tbody>
</table>

The five-factor solution replicated the solution found in Pilot Study 2. The factors in this solution were defensiveness, utility, accountability, social-awareness, and feedback self-efficacy. In the five-factor solution, 22 of the 25 items loaded where expected with no crossloadings greater than 0.30. However, two self-efficacy items loaded more strongly on the defensiveness dimension and one additional self-efficacy item had a crossloading greater than 0.30 on the defensiveness scale. In the four-factor solution, all the items from the self-efficacy and the defensiveness dimensions loaded on one factor with the remaining items loading on the expected dimensions (utility, accountability, and social awareness) without crossloadings. The overlap found between
defensiveness and feedback self-efficacy items in the four and five factor solutions suggested that these two dimensions were operationalized in a way that was redundant. Two options for dealing with this redundancy were to combine the items from each dimension into one or to eliminate one set of items. For the sake of keeping the scale simple, it was decided that only items from one of the dimensions would be retained. The following factors contributed to the decision to only retain one dimension:

1) As noted above, items from the self-efficacy dimension loaded or crossloaded on the defensiveness dimension. In addition, the five factor solution revealed a correlation of .57 between the two factors.

2) The four-factor solution resulted in a factor that combined defensiveness and self-efficacy.

3) The defensiveness dimension was framed negatively and was less consistent with the other scale dimensions. Keeping these items instead of or in addition to the self-efficacy items would add to the complexity of the scale.

4) Most compelling is that subsequent examination of the convergent, discriminant, and criterion-related validity revealed that each hypothesis proposed for the defensiveness dimension was supported when substituting the feedback self-efficacy dimension. This suggests that these two dimensions were not unique and actually quite strongly related.

After removing the items from the defensiveness dimension, an additional EFA using ML factor extraction with oblique rotation was run. There were 5 factors with eigenvalues greater than 1.00 and the scree plot revealed a change in slope between 3 and
6 factors with a sharp bend at 3 factors. Solutions ranging from 3 to 6 factors were explored (see Table 7).

Table 7

Focal Study 1 EFA: One to Six Factor Solutions without Defensiveness

<table>
<thead>
<tr>
<th>Factor</th>
<th>Eigenvalue</th>
<th>Cumulative Variance</th>
<th>% Residuals Exceeding .05</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5.72</td>
<td>29%</td>
<td>62%</td>
</tr>
<tr>
<td>2</td>
<td>2.62</td>
<td>42%</td>
<td>53%</td>
</tr>
<tr>
<td>3</td>
<td>1.64</td>
<td>50%</td>
<td>27%</td>
</tr>
<tr>
<td>4</td>
<td>1.48</td>
<td>57%</td>
<td>15%</td>
</tr>
<tr>
<td>5</td>
<td>1.07</td>
<td>63%</td>
<td>4%</td>
</tr>
<tr>
<td>6</td>
<td>.81</td>
<td>67%</td>
<td>3%</td>
</tr>
</tbody>
</table>

The 5 and 6 factor solutions included factors driven by only one or two items and thus were eliminated from further analysis (Tabachnick and Fidell, 1996). The three-factor solution only accounted for 50% of the variance and 27% of the residuals exceeded values of .05. In contrast, the four-factor solution accounted for 57% of the variance with only 15% of the residuals exceeding .05. This solution was composed of the following factors: utility, accountability, social awareness, and feedback self-efficacy. As seen in Table 8, the four-factor solution was also the most interpretable, with all items loading on the expected dimension and no crossloadings greater than .30.
Table 8

Focal Study 1 EFA: Four-Factor Solution

<table>
<thead>
<tr>
<th>Item</th>
<th>Uti</th>
<th>Soc</th>
<th>Sel</th>
<th>Acc</th>
</tr>
</thead>
<tbody>
<tr>
<td>I find that feedback is critical for reaching my goals.</td>
<td>.83</td>
<td>.04</td>
<td>-.11</td>
<td>-.03</td>
</tr>
<tr>
<td>To develop my skills at work, I rely on feedback.</td>
<td>.83</td>
<td>-.03</td>
<td>.02</td>
<td>-.06</td>
</tr>
<tr>
<td>Feedback is critical for improving performance.</td>
<td>.76</td>
<td>-.08</td>
<td>.04</td>
<td>.08</td>
</tr>
<tr>
<td>Feedback from supervisors can help me advance in a company.</td>
<td>.63</td>
<td>.02</td>
<td>.01</td>
<td>.05</td>
</tr>
<tr>
<td>Feedback contributes to my success at work.</td>
<td>.58</td>
<td>.06</td>
<td>.15</td>
<td>.02</td>
</tr>
<tr>
<td>Using feedback, I am more aware of what people think of me.</td>
<td>-.08</td>
<td>.84</td>
<td>.07</td>
<td>-.06</td>
</tr>
<tr>
<td>Feedback lets me know how I am perceived by others.</td>
<td>.09</td>
<td>.68</td>
<td>.08</td>
<td>-.06</td>
</tr>
<tr>
<td>Feedback helps me manage the impression I make on others.</td>
<td>.15</td>
<td>.68</td>
<td>-.08</td>
<td>-.04</td>
</tr>
<tr>
<td>I try to be aware of what other people think of me.</td>
<td>-.19</td>
<td>.62</td>
<td>-.10</td>
<td>.14</td>
</tr>
<tr>
<td>I rely on feedback to help me make a good impression.</td>
<td>.15</td>
<td>.51</td>
<td>.03</td>
<td>.09</td>
</tr>
<tr>
<td>I know that I can handle the feedback that I receive.</td>
<td>-.12</td>
<td>.12</td>
<td>.84</td>
<td>.01</td>
</tr>
<tr>
<td>I believe that I have the ability to deal with feedback effectively.</td>
<td>-.01</td>
<td>.03</td>
<td>.77</td>
<td>-.07</td>
</tr>
<tr>
<td>I feel confident when responding to both positive and negative feedback.</td>
<td>.06</td>
<td>-.09</td>
<td>.62</td>
<td>.06</td>
</tr>
<tr>
<td>I feel self-assured when dealing with feedback.</td>
<td>.14</td>
<td>-.03</td>
<td>.48</td>
<td>.01</td>
</tr>
<tr>
<td>Compared to others, I am more competent at handling feedback.</td>
<td>.02</td>
<td>-.14</td>
<td>.40</td>
<td>.11</td>
</tr>
<tr>
<td>I hold myself accountable to respond to feedback appropriately.</td>
<td>-.06</td>
<td>.04</td>
<td>.05</td>
<td>.71</td>
</tr>
<tr>
<td>If my supervisor gives me feedback, it is my responsibility to respond to it.</td>
<td>-.06</td>
<td>-.06</td>
<td>.05</td>
<td>.70</td>
</tr>
<tr>
<td>It is my responsibility to apply feedback to improve my performance.</td>
<td>.07</td>
<td>.03</td>
<td>-.06</td>
<td>.70</td>
</tr>
<tr>
<td>I don't feel a sense of closure until I respond to feedback.</td>
<td>.12</td>
<td>-.02</td>
<td>.06</td>
<td>.41</td>
</tr>
<tr>
<td>I feel obligated to make changes based on feedback.</td>
<td>.11</td>
<td>.16</td>
<td>-.03</td>
<td>.35</td>
</tr>
</tbody>
</table>

Note. The highest factor loading for each item is bolded. In addition, any cross loadings greater than .30 are also bolded. Intercorrelations between dimensions are at the bottom of the table. Uti=Utility; Soc=Social Awareness; Sel=Feedback Self-Efficacy; Acc=Accountability.

The final analysis used to explore the dimensionality of these items was a confirmatory factor analysis (CFA) done in Mplus using ML estimation. Using CFA provides further insight into the extent to which a four-factor solution appropriately fits the data. Two models were tested using CFA. The first model was a measurement model in which each of the dimensions were modeled with multiple single-item indicators and
these dimensions were allowed to freely correlate with each other. The second model was a hierarchical model in which each lower level dimension was modeled as a latent indicator of the higher order factor of feedback orientation. Both models fit the data well (see Table 9). Since the hierarchical model is a more parsimonious depiction of the Feedback Orientation construct, it was the preferred model.

Examining this model, modification indices suggested that a few logical changes would improve model fit (see Figure 4). The first modification made was to allow the residuals of two items on the accountability scale to covary (“It is my responsibility to apply feedback to improve my performance.” and “I hold myself accountable to respond to feedback appropriately.”). The second was to allow one item from the accountability scale to cross-load on the utility scale (If my supervisor gives me feedback, it is my responsibility to respond to it.”). The third modification was to allow the residuals of two items from the social awareness dimension to covary. (“I try to be aware of what other people think of me.” and “Using feedback, I am more aware of what people think of me.”)

The final fit for this modified model is found in Table 9. Based on Hu and Bentler’s (1999) two-index presentation strategy of SRMR less than or equal to .08 and RMSEA less than or equal to .06 there is evidence that the model adequately fits the data. Upon further examination of the model, it was also noted that three items were not explained well by the model (each had residual variances greater than .70 and r-squared less than .25). These items were “I feel obligated to make changes based on feedback” (Accountability dimension), “I try to be aware of what other people think of me” (Social
Awareness dimension) and “Compared to others, I am more competent at handling feedback” (Feedback Self-Efficacy dimension). Looking back at the results of the exploratory factor analyses, these same items had lower factor loadings. Thus, in the analyses of reliability (described in the next section), special attention was paid to these items.

Table 9

Focal Study 1 CFA

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$</th>
<th>df</th>
<th>SRMSR</th>
<th>RMSEA</th>
<th>CFI</th>
<th>TLI</th>
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</thead>
<tbody>
<tr>
<td>Measurement Model</td>
<td>316.47</td>
<td>164</td>
<td>.06</td>
<td>.06</td>
<td>.92</td>
<td>.91</td>
</tr>
<tr>
<td>Hierarchical Model</td>
<td>327.06</td>
<td>166</td>
<td>.07</td>
<td>.06</td>
<td>.91</td>
<td>.90</td>
</tr>
<tr>
<td>Modified Hierarchical</td>
<td>282.98</td>
<td>163</td>
<td>.06</td>
<td>.05</td>
<td>.94</td>
<td>.93</td>
</tr>
</tbody>
</table>

*Note.* All analyses were conducted on an N of 270.
Figure 4

CFA Hierarchical Model with Modifications
Examination of Internal Consistency and Test-Retest Reliability. Analysis of internal consistency revealed that the alphas for each scale were above the typical .70 cutoff (Nunnally, 1979). To further examine the quality of individual items, the alpha if the item was deleted was explored. The three items that were found to be weaker in exploratory and confirmatory factor analyses were not found to have any substantial impact on alpha values when removed from their respective dimensions. Thus, it was determined that these items should be retained. The utility dimension had an alpha of .86. The accountability scale had an alpha of .74. The social awareness scale had an alpha of .80. The self-efficacy scale had an alpha of .77. The overall alpha of the scale was .86.

To obtain test-retest reliability estimates, all participants who agreed to be contacted for a follow-up study were invited to complete the Feedback Orientation Scale again. A total of 132 participants completed the scale again. The length of time between the first and second administration varied from 1 to 146 days (146 days is about 5 months). The median time was 46 days and mean time was 43 days. Since London and Smither (2002) suggest that Feedback Orientation is stable in the medium term (i.e., 6 to 12 months), it was expected that the time periods for test re-test examined here are acceptable. The utility dimension had a test re-test reliability of .60. The accountability had a test re-test reliability of .54. The social awareness scale had a test re-test reliability of .54. The self-efficacy had a test re-test reliability of .60. The overall test re-test for the scale was .69. Examining the length of time between administrations as a moderator, no significant effects for length of time on test-retest reliability were found.
Convergent and Discriminant Validity. After thoroughly analyzing the dimensionality and reliability of the Feedback Orientation Scale, the hypotheses regarding convergent and discriminant validity summarized in Table 1 were tested. The correlations found in Table 10 reveals the extent to which these hypotheses were supported and is referred to in the following discussion of these hypotheses.
Table 10

*Focal Study 1 Correlations*

<table>
<thead>
<tr>
<th></th>
<th>Uti</th>
<th>Acc</th>
<th>Soc</th>
<th>Sel</th>
<th>FOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fear of Negative Evaluation</td>
<td>.00</td>
<td>.01</td>
<td>.31*</td>
<td>-.29*</td>
<td>.03</td>
</tr>
<tr>
<td>Feedback Delivery</td>
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<td>.26*</td>
<td>.21*</td>
<td>.26*</td>
<td>.33*</td>
</tr>
<tr>
<td>Job Involvement</td>
<td>.17*</td>
<td>.15*</td>
<td>.11</td>
<td>.15*</td>
<td>.20*</td>
</tr>
<tr>
<td>Feedback Credibility</td>
<td>.26*</td>
<td>.31*</td>
<td>.21*</td>
<td>.32*</td>
<td>.37*</td>
</tr>
<tr>
<td>Feedback Quality</td>
<td>.41*</td>
<td>.46*</td>
<td>.31*</td>
<td>.36*</td>
<td>.54*</td>
</tr>
<tr>
<td>Protestant work Ethic</td>
<td>.23*</td>
<td>.35*</td>
<td>.17*</td>
<td>.23*</td>
<td>.34*</td>
</tr>
<tr>
<td>Locus of Control</td>
<td>-.20*</td>
<td>-.26*</td>
<td>-.17*</td>
<td>-.25*</td>
<td>-.31*</td>
</tr>
<tr>
<td>Public Self-Consciousness</td>
<td>.03</td>
<td>-.02</td>
<td>.18*</td>
<td>-.16*</td>
<td>.02</td>
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<td>General Self-Efficacy</td>
<td>.25*</td>
<td>.26*</td>
<td>.09</td>
<td>.46*</td>
<td>.36*</td>
</tr>
<tr>
<td>Learning Goal Orientation</td>
<td>.26*</td>
<td>.42*</td>
<td>.12</td>
<td>.39*</td>
<td>.40*</td>
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<tr>
<td>Social Desirability</td>
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<td>.15*</td>
<td>.04</td>
<td>.12</td>
<td>.12</td>
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<td>Positive Affect</td>
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<td>.21*</td>
<td>.07</td>
<td>.23*</td>
<td>.24*</td>
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<tr>
<td>Negative Affect</td>
<td>-.05</td>
<td>-.01</td>
<td>-.01</td>
<td>-.26*</td>
<td>-.12</td>
</tr>
<tr>
<td>Feedback Environment</td>
<td>.37*</td>
<td>.40*</td>
<td>.23*</td>
<td>.37*</td>
<td>.47*</td>
</tr>
</tbody>
</table>

*p < .05. Uti=Utility; Acc=Accountability; Soc=Social Awareness; Sel=Feedback Self-Efficacy; FOS=Feedback Orientation Scale Overall.*
Utility. To demonstrate evidence of convergent validity, it was predicted that utility would be positively related to job involvement (Hypothesis 4), feedback credibility (Hypothesis 5), and feedback quality (Hypothesis 6). Support was found for each of these hypotheses. As suggested by Hypothesis 4, 5, and 6, there was a significant positive correlation between job involvement and utility (r = .17), feedback credibility and utility (r = .26), and feedback quality and utility (r = .41). To demonstrate discriminant validity it was predicted that utility would be unrelated to fear of negative evaluation (Hypothesis 7). This was supported with a non-significant correlation of - .002 between utility and fear of negative evaluation.

Accountability. It was predicted that accountability would be positively related to protestant work ethic (Hypothesis 8) and Locus of control (Hypothesis 9). Hypotheses 8 and 9 were supported with a significant positive correlation between protestant work ethic and accountability (r = .35) and a significant negative correlation between locus of control and accountability (r = -.26). These relationships provide evidence of convergent validity. To explore discriminant validity, it was predicted that accountability would be unrelated to public self-consciousness (Hypothesis 10). This was supported with a non-significant correlation (r = -.02) between accountability and public self-consciousness.

Social Awareness. To examine convergent validity, it was predicted that social awareness would be positively related to public self-consciousness (Hypothesis 11) and social desirability (Hypothesis 12). Support was found for Hypothesis 11 with a positive correlation of .18 between public self-consciousness and social awareness. No support
was found for Hypothesis 12 as Social Awareness was not significantly related to social desirability ($r = .04$). With regard to discriminant validity, it was predicted that social awareness would not be related to general self-efficacy (Hypothesis 13). This hypothesis was supported with a non-significant correlation ($r = .09$) between social awareness and general self-efficacy.

**Feedback Self-Efficacy.** It was predicted that feedback self-efficacy would be positively related to general self-efficacy (Hypothesis 14) and negatively related to locus of control (Hypothesis 15). Hypotheses 14 and 15 were supported with a significant positive correlation between general self-efficacy and feedback self-efficacy ($r = .46$) and a significant negative correlation between locus of control and feedback self-efficacy ($r = -.25$). To examine discriminant validity, it was predicted that feedback self-efficacy would not be related to public self-consciousness (Hypothesis 16). This hypothesis was not supported as there was a significant correlation between feedback self-efficacy and public self-consciousness ($r = -.16$).

**Feedback Orientation.** In addition to developing hypotheses regarding convergent and discriminant validity for each dimension, hypotheses were also proposed regarding the validity of the construct as a whole. As described in Hypothesis 20a, an individual’s feedback orientation was expected to positively relate to the feedback environment. Support for Hypothesis 20a was found ($r = .47$). Since feedback orientation is stable in the medium term (but can be affected by situation factors over long periods of time), it was also predicted that the relationship between feedback environment and feedback orientation would get stronger over time (20b). This hypothesis was tested using
moderated multiple regression. First, feedback environment and time with supervisor were entered to test for main effects. A significant main effect was found for feedback environment on feedback orientation ($\beta = .47, p < .05$) but no significant main effect was found for time ($\beta = -.05, p > .05$). Next, the interaction term of feedback environment by time was entered. The interaction term was not significant ($\beta = .52, p > .05$). Thus, no support was found for this hypothesis (20b). Feedback orientation was also predicted to be positively related to learning goal orientation (Hypothesis 21). Support was found for Hypothesis 21 with a significant relationship between feedback orientation and learning goal orientation ($r = .40$). Finally, with regard to discriminant validity it was hypothesized that feedback orientation would be unrelated to affect (Hypothesis 22) and social desirability (Hypothesis 23). Hypothesis 22 was partially supported. Negative affect was found to have a non-significant relationship ($r = .12$) with feedback orientation but positive affect was found to have a significant relationship ($r = .24$) with feedback orientation. Hypothesis 23 was supported with a nonsignificant relationship ($r = .12$) between social desirability and feedback orientation.

*Convergent and Discriminant Validity Summarized.* Overall, substantial support for both convergent and discriminant was found in Focal Study 1. Fourteen of eighteen hypotheses were supported. These results provide evidence that the Feedback Orientation Scale and its four dimensions are measuring what they are intended to measure.

*Criterion-related Validity.* In addition to demonstrating convergent and discriminant validity, when developing a new measure it is also important to examine
criterion-related validity. Regression was used to explore the extent to which hypotheses surrounding criterion-related validity were supported by the data. The correlations between outcomes and feedback orientation dimensions can be found in Appendix F. Results of regression analyses used to test hypotheses pertaining to criterion-related validity can be found in Table 11.
Table 11

**Summary of Regression Analyses Examining Criterion-Related Validity**

<table>
<thead>
<tr>
<th>DV: PA Utility Perceptions</th>
<th>Step 1 β</th>
<th>Step 1 R²</th>
<th>Step 2 β</th>
<th>R²Δ</th>
<th>Total R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utility</td>
<td>.39*</td>
<td>.15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Involvement</td>
<td>.26*</td>
<td>.06</td>
<td>.36* (Uti)</td>
<td>.13*</td>
<td>.19</td>
</tr>
<tr>
<td>Feedback Credibility</td>
<td>.50*</td>
<td>.24</td>
<td>.29* (Uti)</td>
<td>.08*</td>
<td>.32</td>
</tr>
<tr>
<td>Feedback Quality</td>
<td>.59*</td>
<td>.35</td>
<td>.19* (Uti)</td>
<td>.03*</td>
<td>.38</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DV: Perceived Benefits of Development</th>
<th>Step 1 β</th>
<th>Step 1 R²</th>
<th>Step 2 β</th>
<th>R²Δ</th>
<th>Total R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utility</td>
<td>.30*</td>
<td>.09</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Job Involvement</td>
<td>.20*</td>
<td>.04</td>
<td>.27* (Uti)</td>
<td>.07*</td>
<td>.11</td>
</tr>
<tr>
<td>Feedback Credibility</td>
<td>.25*</td>
<td>.06</td>
<td>.27* (Uti)</td>
<td>.07*</td>
<td>.13</td>
</tr>
<tr>
<td>Feedback Quality</td>
<td>.33*</td>
<td>.11</td>
<td>.20* (Uti)</td>
<td>.03*</td>
<td>.14</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DV: Intentions to Use Feedback</th>
<th>Step 1 β</th>
<th>Step 1 R²</th>
<th>Step 2 β</th>
<th>R²Δ</th>
<th>Total R²</th>
</tr>
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<tbody>
<tr>
<td>Accountability</td>
<td>.48*</td>
<td>.23</td>
<td></td>
<td></td>
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<tr>
<td>Protestant Work Ethic</td>
<td>.34*</td>
<td>.12</td>
<td>.40* (Acc)</td>
<td>.14*</td>
<td>.26</td>
</tr>
<tr>
<td>Locus of Control</td>
<td>-.24*</td>
<td>.06</td>
<td>.45* (Acc)</td>
<td>.19*</td>
<td>.25</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DV: Role Clarity</th>
<th>Step 1 β</th>
<th>Step 1 R²</th>
<th>Step 2 β</th>
<th>R²Δ</th>
<th>Total R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accountability</td>
<td>.22*</td>
<td>.05</td>
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<tr>
<td>Protestant Work Ethic</td>
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<td>.05</td>
<td>.18* (Acc)</td>
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<td>.08</td>
</tr>
<tr>
<td>Locus of Control</td>
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<td>.07</td>
<td>.17* (Acc)</td>
<td>.03*</td>
<td>.10</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>DV: Self-Monitoring</th>
<th>Step 1 β</th>
<th>Step 1 R²</th>
<th>Step 2 β</th>
<th>R²Δ</th>
<th>Total R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Awareness</td>
<td>.25*</td>
<td>.06</td>
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<tr>
<td>Public Self-Consciousness</td>
<td>.04</td>
<td>.01</td>
<td>.26* (Soc)</td>
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<td>.07</td>
</tr>
<tr>
<td>Social Desirability</td>
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<td>.00</td>
<td>.24* (Soc)</td>
<td>.06*</td>
<td>.06</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DV: Intentions to Use Feedback</th>
<th>Step 1 β</th>
<th>Step 1 R²</th>
<th>Step 2 β</th>
<th>R²Δ</th>
<th>Total R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Awareness</td>
<td>.04</td>
<td>.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Self-Consciousness</td>
<td>.07</td>
<td>.01</td>
<td>.47* (Soc)</td>
<td>.21*</td>
<td>.22</td>
</tr>
<tr>
<td>Social Desirability</td>
<td>.18*</td>
<td>.03</td>
<td>.44* (Soc)</td>
<td>.20*</td>
<td>.23</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DV: PA Session Satisfaction</th>
<th>Step 1 β</th>
<th>Step 1 R²</th>
<th>Step 2 β</th>
<th>R²Δ</th>
<th>Total R²</th>
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<tbody>
<tr>
<td>Feedback Self-Efficacy</td>
<td>.35*</td>
<td>.13</td>
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</tr>
<tr>
<td>General Self-Efficacy</td>
<td>.21*</td>
<td>.04</td>
<td>.32* (Sel)</td>
<td>.08*</td>
<td>.12</td>
</tr>
<tr>
<td>Locus of Control</td>
<td>-.33*</td>
<td>.11</td>
<td>.29* (Sel)</td>
<td>.08*</td>
<td>.19</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DV: Participation in Development</th>
<th>Step 1 β</th>
<th>Step 1 R²</th>
<th>Step 2 β</th>
<th>R²Δ</th>
<th>Total R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feedback Self-Efficacy</td>
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<td>.13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Self-Efficacy</td>
<td>.01</td>
<td>.00</td>
<td>.41* (Sel)</td>
<td>.15*</td>
<td>.15</td>
</tr>
<tr>
<td>Locus of Control</td>
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<td>.01</td>
<td>.33* (Sel)</td>
<td>.11*</td>
<td>.12</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DV: Feedback Seeking</th>
<th>Step 1 β</th>
<th>Step 1 R²</th>
<th>Step 2 β</th>
<th>R²Δ</th>
<th>Total R²</th>
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</thead>
<tbody>
<tr>
<td>Feedback Orientation</td>
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<td>Feedback Environment</td>
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<td>.06</td>
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<tr>
<td>Learning Goal Orientation</td>
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<td>.06</td>
<td>.39* (FOS)</td>
<td>.13*</td>
<td>.19</td>
</tr>
</tbody>
</table>

*Beta weights are for step at which variable is entered. DV = Dependent Variable; PA=Performance Appraisal; Uti=Utility; Acc=Accountability; Sel=Feedback Self-Efficacy; Soc=Social Awareness.*
Utility. Feedback utility was hypothesized to predict performance appraisal utility perceptions (Hypothesis 26a). Regression analysis revealed support for Hypothesis 26a with feedback utility perceptions being a significant predictor of performance appraisal utility perceptions ($\beta = .39, p < .05$). It was also hypothesized that the dimension of utility would predict performance appraisal utility perceptions above and beyond job involvement (26b), feedback credibility (26c), or feedback quality (26d). To test each of these hypotheses, three separate regression analyses were conducted. For each analysis, the more general construct (i.e., job involvement, feedback credibility, or feedback quality) was entered into the regression equation in the first step followed by the utility dimension in the second step. A significant change in R-squared would support the notion that feedback utility could predict above and beyond the construct entered first. Thus, for Hypothesis 26b, first job involvement was entered followed by utility. Adding utility to the model resulted in a significant change in R-squared ($\Delta R^2 = .13, p < .05$) providing support for Hypothesis 26b. For Hypothesis 26c, first feedback credibility was entered followed by utility. Adding utility to the model resulted in a significant change in R-squared ($\Delta R^2 = .08, p < .05$) providing support for Hypothesis 26c. Finally, for Hypothesis 26d, first feedback quality was entered followed by utility. Adding utility to the model resulted in a significant change in R-squared ($\Delta R^2 = .03, p < .05$) providing support for Hypothesis 26d.

Feedback utility was also hypothesized to predict perceived benefits of development (Hypothesis 27a). Regression analysis revealed support for Hypothesis 27a,
utility was a significant predictor of perceived benefits of development ($\beta = .30, p < .05$).

It was also hypothesized that utility would predict perceived benefits of development above and beyond job involvement (27b), feedback credibility (27c), or feedback quality (27d). To test Hypothesis 27b, first job involvement was entered followed by utility. Adding utility to the model resulted in a significant change in R-squared ($\Delta R^2 = .07, p < .05$) providing support for Hypothesis 27b. To test Hypothesis 27c, first feedback credibility was entered followed by utility. Adding utility to the model resulted in a significant change in R-squared ($\Delta R^2 = .07, p < .05$) providing support for Hypothesis 27c. Finally, to test Hypothesis 27d, first feedback quality was entered followed by utility. Adding utility to the model resulted in a significant change in R-squared ($\Delta R^2 = .03, p < .05$) providing support for Hypothesis 27d.

**Accountability.** Feedback accountability was hypothesized to predict intentions to use feedback (Hypothesis 28a). Regression analysis supported Hypothesis 28a, accountability was a significant predictor of intentions to use feedback ($\beta = .48, p < .05$).

It was also hypothesized accountability would predict intentions to use feedback above and beyond protestant work ethic (28b) and locus of control (28c). To test Hypothesis 28b, first protestant work ethic was entered followed by accountability. Adding accountability to the model resulted in a significant change in R-squared ($\Delta R^2 = .14, p < .05$) providing support for Hypothesis 28b. For Hypothesis 28c, first locus of control was entered followed by accountability. Adding accountability to the model resulted in a significant change in R-squared ($\Delta R^2 = .19, p < .05$) providing support for Hypothesis 28c.
Feedback accountability was also hypothesized to predict role clarity (Hypothesis 29a). Regression analysis supported Hypothesis 29a, accountability was a significant predictor of role clarity ($\beta = .22$, $p < .05$). It was also hypothesized that the accountability would predict role clarity above and beyond protestant work ethic (29b) and locus of control (29c). Thus, for Hypothesis 29b, first protestant work ethic was entered followed by accountability. Adding accountability to the model resulted in a significant change in R-squared ($\Delta R^2 = .03$, $p < .05$) providing support for Hypothesis 29b. For Hypothesis 29c, first locus of control was entered followed by accountability. Adding accountability to the model resulted in a significant change in R-squared ($\Delta R^2 = .03$, $p < .05$) providing support for Hypothesis 29c.

Social Awareness. The social awareness dimension of the Feedback Orientation Scale was hypothesized to predict self-monitoring (Hypothesis 30a). Regression analysis supported Hypothesis 30a, social awareness was a significant predictor of self-monitoring ($\beta = .25$, $p < .05$). It was also hypothesized that social awareness would predict self-monitoring above and beyond public self-consciousness (30b) and social desirability (30c). Thus, for Hypothesis 30b, first public self-consciousness was entered followed by social awareness. Adding social awareness to the model resulted in a significant change in R-squared ($\Delta R^2 = .06$, $p < .05$) providing support for Hypothesis 30b. For Hypothesis 30c, first social desirability was entered followed by social awareness. Adding social awareness to the model resulted in a significant change in R-squared ($\Delta R^2 = .06$, $p < .05$) providing support for Hypothesis 30c.
Social awareness was also hypothesized to predict intentions to use feedback (Hypothesis 31a). Regression analysis supported Hypothesis 31a, social awareness was a significant predictor of feedback intentions ($\beta = .46$, $p < .05$). It was also hypothesized that the dimension of social awareness would predict feedback intentions above and beyond public self-consciousness (31b) and social desirability (31c). Thus, for Hypothesis 31b, first public self-consciousness was entered followed by social awareness. Adding social awareness to the model resulted in a significant change in R-squared ($\Delta R^2 = .21$, $p < .05$) providing support for Hypothesis 31b. For Hypothesis 31c, first social desirability was entered followed by social awareness. Adding social awareness to the model resulted in a significant change in R-squared ($\Delta R^2 = .20$, $p < .05$) providing support for Hypothesis 31c.

*Feedback Self-efficacy.* Feedback self-efficacy was hypothesized to predict performance appraisal session satisfaction (Hypothesis 32a). Regression analysis supported Hypothesis 32a, feedback self-efficacy was a significant predictor of performance appraisal session satisfaction ($\beta = .35$, $p < .05$). It was also hypothesized that the feedback self-efficacy would predict performance appraisal session satisfaction above and beyond general self-efficacy (32b) and locus of control (32c). Thus, for Hypothesis 32b, first self-efficacy was entered followed by feedback self-efficacy. Adding feedback self-efficacy to the model resulted in a significant change in R-squared ($\Delta R^2 = .08$, $p < .05$) providing support for Hypothesis 32b. For Hypothesis 32c, first locus of control was entered followed by feedback self-efficacy. Adding feedback self-efficacy to the model
resulted in a significant change in R-squared ($\Delta R^2 = .08$, $p < .05$) providing support for Hypothesis 32c.

Feedback self-efficacy was also hypothesized to predict participation in development (Hypothesis 33a). Regression analysis supported Hypothesis 33a, feedback self-efficacy was a significant predictor of supervisor reports of an individual’s participation in development ($\beta = .36$, $p < .05$). It was also hypothesized that the dimension of feedback self-efficacy would predict feedback intentions above and beyond general self-efficacy (33b) and locus of control (33c). Thus, for Hypothesis 33b, first general self-efficacy was entered followed by feedback self-efficacy. Adding feedback self-efficacy to the model resulted in a significant change in R-squared ($\Delta R^2 = .15$, $p < .05$) providing support for Hypothesis 33b. For Hypothesis 33c, first locus of control was entered followed by feedback self-efficacy. Adding feedback self-efficacy to the model resulted in a significant change in R-squared ($\Delta R^2 = .11$, $p < .05$) providing support for Hypothesis 33c.

Feedback Orientation Overall. Feedback orientation was hypothesized to predict feedback seeking (Hypothesis 36a). Regression analysis supported Hypothesis 36a, feedback orientation was a significant predictor of self-reported feedback seeking. ($\beta = .44$, $p < .05$). It was also hypothesized that the feedback orientation would predict intentions to use feedback above and beyond the feedback environment (36b) and learning goal orientation (36c). To test each of these hypotheses, two separate regression analyses were conducted. Thus, for Hypothesis 36b, first feedback environment was entered followed by feedback orientation. Adding feedback orientation to the model
resulted in a significant change in R-squared ($\Delta R^2 = .12, p < .05$) providing support for Hypothesis 36b. For Hypothesis 36c, first learning goal was entered followed by feedback orientation. Adding feedback orientation to the model resulted in a significant change in R-squared ($\Delta R^2 = .13, p < .05$) providing support for Hypothesis 36c.

**Exploratory Analyses: Overall patterns.** To examine the unique contribution of each dimension in predicting outcomes, additional regression analyses were done. Showing that dimensions differentially predict important outcomes helps demonstrate their unique contributions to the construct as a whole.

In the exploratory regression analyses, dimensions of feedback orientation were entered as independent variables to “compete” with one another in predicting various outcomes (see Table 12). If dimensions are highly redundant, a high level of multicollinearity would exist and no dimension would be likely to emerge as uniquely predicting variance in the dependent variable. However, if a dimension is uniquely predicting variance in the outcome above and beyond other dimensions, it will emerge as a significant predictor. For example, when all dimensions are entered as independent variables and participation in development is the dependent variable, it is found that feedback self-efficacy predicts a significant amount of unique variance in participation ($\beta = .33, p < .05$). In another regression analysis it was found that accountability ($\beta = .28, p < .05$), social awareness ($\beta = .33, p < .05$), and feedback self-efficacy ($\beta = .15, p < .05$) all accounted for significant amounts of unique variance in predicting feedback intentions. These are just two examples that demonstrate a pattern supporting the value of each dimension to the overall construct. Regression analyses that allowed dimensions
to compete in predicting other dependent variables such as role clarity, performance appraisal session satisfaction, perceived benefits of developmental activities, and resistance to change all revealed one or more dimensions predicting variance in the dependent variable above and beyond other dimensions.
Table 12

*Exploratory Regression Analyses: The Unique Contribution of Dimensions in Predicting Outcomes*

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Participation in Development</th>
<th>Feedback Intentions</th>
<th>Role Clarity</th>
<th>PA Session Satisfaction</th>
<th>PA Utility Perceptions</th>
<th>Perceived Benefits of Participation</th>
<th>Resistance to change</th>
<th>Self-Monitoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uti</td>
<td>.13</td>
<td>.08</td>
<td>.11</td>
<td>.12</td>
<td>.20*</td>
<td>.16*</td>
<td>.01</td>
<td>.08</td>
</tr>
<tr>
<td>Acc</td>
<td>.00</td>
<td>.28*</td>
<td>.01</td>
<td>.13*</td>
<td>.14*</td>
<td>.20*</td>
<td>.06</td>
<td>.09</td>
</tr>
<tr>
<td>Soc</td>
<td>-.02</td>
<td>.33*</td>
<td>.07</td>
<td>.04</td>
<td>.18*</td>
<td>.10</td>
<td>.07</td>
<td>.21*</td>
</tr>
<tr>
<td>Sel</td>
<td>.33*</td>
<td>.15*</td>
<td>.34*</td>
<td>.25*</td>
<td>.20*</td>
<td>-.02</td>
<td>-.23*</td>
<td>.29*</td>
</tr>
<tr>
<td>R²</td>
<td>.14</td>
<td>.36</td>
<td>.17</td>
<td>.17</td>
<td>.25</td>
<td>.13</td>
<td>.05</td>
<td>.16</td>
</tr>
</tbody>
</table>

Note. This table reports standardized beta weights. *p<.05.

Uti=Utility; Acc=Accountability; Sel=Feedback Self-Efficacy; Soc=Social Awareness; PA=Performance Appraisal.

*Criterion-related Validity Summarized.* Overall, the support of all 29 hypotheses related to criterion validity provides substantial support for the Feedback Orientation Scale and its dimensions. Not only are outcomes predicted as expected, feedback orientation and its dimensions predict these outcomes above and beyond other relevant predictors. In addition, when all dimensions are entered as predictors of these outcomes, they predict variance above and beyond one another, suggesting that each dimension captures a unique part of the construct.
Focal Study 2

Participants

The Feedback Orientation Scale is intended to be used in a working population. Although the working undergraduates provided a good approximation of the population for which the scale is intended to be used, Focal Study 2 uses a field sample to help answer questions regarding the generalizeability of results beyond the working student samples. For this study, employees of a manufacturing company in the Midwest were recruited to complete a survey (N = 267). Production workers made up 72% of the sample, office workers 15%, supervisors 5%, and managers 8%. In addition, 91% were male and 9% were female.

Methods

Participants completed a survey that included the final Feedback Orientation Scale from focal study one (found in Appendix G), a shortened version (21 items) of the feedback environment scale (overall $\alpha = .95$; credibility $\alpha = .85$; quality $\alpha = .88$; delivery $\alpha = .87$; frequency of favorable feedback $\alpha = .91$; frequency of unfavorable $\alpha = .80$; availability $\alpha = .74$; and promotes feedback seeking $\alpha = .73$), items on performance appraisal session satisfaction ($\alpha = .86$; see Focal Study 1 for more information on this measure), items on performance appraisal utility perceptions ($\alpha = .89$; see Focal Study 1 for more information on this measure), one item on participation in developmental activities (“In the past year, how many hours have you devoted to job related training or development?”), and two items on feedback intentions ($\alpha = .82$; “I intend to change my
work behaviors based on feedback I have received from my supervisor” and “I plan to improve my job performance based on feedback that has been provided to me by my supervisor”). Participants were also asked a few additional questions about the performance appraisal system at the request of the company.

Results

For Focal Study 2, dimensionality and reliability of the Feedback Orientation Scale were examined to explore the extent to which previous findings generalized to a field sample. In addition, the relationships between feedback orientation dimensions and the other constructs were analyzed to further demonstrate convergent and criterion-related validity, replicating previous findings with an applied sample.

Prior to conducting analyses, the data were carefully screened and cleaned. Reverse scored items were examined to look for careless or haphazard responses by individuals. Reverse scored items did not reveal any individuals who consistently responded in a haphazard or careless way.

Exploration of Dimensionality. To explore the dimensionality of the revised 24-item Feedback Orientation Scale resulting from Focal Study 1, an exploratory factor analysis (EFA) using maximum likelihood (ML) factor extraction with oblique rotation was done in SPSS. This EFA included only those 20 items from the scale that were not reverse coded. Including only positively worded items, the number of factors to be extracted was determined using the same criteria used for pilot study one and focal study one: (1) the number of eigenvalues greater than 1, (2) Cattell’s (1966) scree test, (3) the variance explained and residual variance, and (4) the interpretability of the solution.
Results of the initial extraction indicated that there were 4 factors with eigenvalues greater than 1.00. An analysis of the scree plot revealed a change in slope between 3 and 5 factors with a sharp bend at 3 factors. Based on eigenvalues and the scree plot analyses, 3 and 4 factor solutions were examined. Table 13 shows that like in Focal Study 1, the four-factor solution fits the data best. It accounted for 61% of the variance and only 12% of the residuals exceeded .05. The four-factor solution composed of utility, accountability, social awareness, and feedback self-efficacy, was also the most interpretable solution (see Table 14). Although there are some higher cross-loadings and one item from the self-efficacy scale loads on the social awareness scale (“I feel self-assured when dealing with feedback”), overall these results replicate the four-factor structure found in Focal Study 1.

Table 13

*Focal Studies 1 and 2 EFAs: One to Four Factor Solutions*

<table>
<thead>
<tr>
<th>Factor</th>
<th>Working Student Sample</th>
<th>Employee Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Eigenvalue</td>
<td>Cumulative Variance</td>
</tr>
<tr>
<td>1</td>
<td>5.72</td>
<td>29%</td>
</tr>
<tr>
<td>2</td>
<td>2.62</td>
<td>42%</td>
</tr>
<tr>
<td>3</td>
<td>1.64</td>
<td>50%</td>
</tr>
<tr>
<td>4</td>
<td>1.48</td>
<td>57%</td>
</tr>
</tbody>
</table>
Table 14

**Focal Study 2 EFA: Four-Factor Solution**

<table>
<thead>
<tr>
<th>Item</th>
<th>Uti</th>
<th>Soc</th>
<th>Sel</th>
<th>Acc</th>
</tr>
</thead>
<tbody>
<tr>
<td>To develop my skills at work, I rely on feedback.</td>
<td>.88</td>
<td>0.00</td>
<td>0.00</td>
<td>-0.07</td>
</tr>
<tr>
<td>I find that feedback is critical for reaching my goals.</td>
<td>.83</td>
<td>-0.02</td>
<td>-0.15</td>
<td>0.15</td>
</tr>
<tr>
<td>Feedback contributes to my success at work.</td>
<td>.71</td>
<td>-0.03</td>
<td>0.30</td>
<td>-0.18</td>
</tr>
<tr>
<td>Feedback is critical for improving performance.</td>
<td>.68</td>
<td>0.00</td>
<td>0.13</td>
<td>0.02</td>
</tr>
<tr>
<td>Feedback from supervisors can help me advance in a company.</td>
<td>.65</td>
<td>0.00</td>
<td>-0.09</td>
<td>0.17</td>
</tr>
<tr>
<td>Using feedback, I am more aware of what people think of me.</td>
<td>-0.07</td>
<td>0.88</td>
<td>-0.02</td>
<td>0.06</td>
</tr>
<tr>
<td>Feedback lets me know how I am perceived by others.</td>
<td>-0.10</td>
<td>0.76</td>
<td>0.06</td>
<td>0.00</td>
</tr>
<tr>
<td>Feedback helps me manage the impression I make on others.</td>
<td>0.10</td>
<td>0.71</td>
<td>-0.05</td>
<td>-0.05</td>
</tr>
<tr>
<td>I try to be aware of what other people think of me.</td>
<td>-0.09</td>
<td>0.71</td>
<td>-0.03</td>
<td>0.09</td>
</tr>
<tr>
<td>I rely on feedback to help me make a good impression.</td>
<td>0.35</td>
<td>0.52</td>
<td>-0.08</td>
<td>-0.07</td>
</tr>
<tr>
<td>I know that I can handle the feedback that I receive.</td>
<td>-0.10</td>
<td>0.00</td>
<td>0.84</td>
<td>0.07</td>
</tr>
<tr>
<td>I believe that I have the ability to deal with feedback effectively.</td>
<td>0.06</td>
<td>-0.01</td>
<td>0.76</td>
<td>-0.06</td>
</tr>
<tr>
<td>I feel confident when responding to both positive and negative feedback.</td>
<td>0.06</td>
<td>-0.09</td>
<td>0.68</td>
<td>0.17</td>
</tr>
<tr>
<td>Compared to others, I am more competent at handling feedback.</td>
<td>0.01</td>
<td>0.32</td>
<td>0.36</td>
<td>-0.08</td>
</tr>
<tr>
<td>I feel self-assured when dealing with feedback.</td>
<td>0.20</td>
<td>0.39</td>
<td>0.16</td>
<td>0.07</td>
</tr>
<tr>
<td>If my supervisor gives me feedback, it is my responsibility to respond to it.</td>
<td>-0.16</td>
<td>0.04</td>
<td>0.05</td>
<td>0.76</td>
</tr>
<tr>
<td>I hold myself accountable to respond to feedback appropriately.</td>
<td>0.17</td>
<td>-0.05</td>
<td>0.12</td>
<td>0.58</td>
</tr>
<tr>
<td>I feel obligated to make changes based on feedback.</td>
<td>0.09</td>
<td>0.04</td>
<td>0.05</td>
<td>0.47</td>
</tr>
<tr>
<td>It is my responsibility to apply feedback to improve my performance.</td>
<td>0.23</td>
<td>0.02</td>
<td>-0.02</td>
<td>0.38</td>
</tr>
<tr>
<td>I don't feel a sense of closure until I respond to feedback.</td>
<td>0.20</td>
<td>0.09</td>
<td>-0.10</td>
<td>0.33</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Uti</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soc</td>
<td>.55 1</td>
</tr>
<tr>
<td>Sel</td>
<td>.53 .21 1</td>
</tr>
<tr>
<td>Acc</td>
<td>.61 .49 .52 1</td>
</tr>
</tbody>
</table>

**Note.** The highest factor loading for each item is bolded. In addition, any cross loadings greater than .30 are also bolded. Intercorrelations between dimensions are at the bottom of the table. Uti=Utility; Soc=Social Awareness; Sel=Feedback Self-Efficacy; Acc=Accountability.

Next confirmatory factor analyses (CFAs) were done in Mplus using ML estimation. The first CFA explored the extent to which an unmodified hierarchical model fit the data. The second CFA explored the extent to which the hierarchical model with three modifications identified in Focal Study 1 fit the data. The first modification made was to allow the residuals of two items on the accountability scale to covary (“It is my responsibility to apply feedback to improve my performance.” and “I hold myself accountable to respond to feedback appropriately.”). The second was to allow one item...
from the accountability scale to cross-load on the utility scale (If my supervisor gives me feedback, it is my responsibility to respond to it.”). The third modification was to allow the residuals two items from the social awareness dimension to covary (“I try to be aware of what other people think of me.” and “Using feedback, I am more aware of what people think of me.”).

In exploring the fit of these two models (unmodified and modified based on Focal Study 1), it was obvious that the idiosyncratic response of this sample to item 25 (“I feel self-assured when dealing with feedback”) appeared to be drastically influencing the results. In the results of the EFA, this item loaded on the social awareness dimension rather than the self-efficacy dimension. One potential explanation is that in responding to this item individuals were concerned about how others would view their response to this item. As a result, it would make sense that the social awareness dimension would account for some of the variance in responses. Thus, a third model was run with an additional modification that allowed this item to load both on the self-efficacy and social awareness dimension. This modification resulted in a drastically improved model fit. See Table 15 for the results of these three CFAs. Based on Hu and Bentler’s two-index presentation strategy of SRMR less than or equal to .08 and RMSEA less than or equal to .06, there is evidence that the third model adequately fits the data.
Table 15

**Focal Study 2 CFA**

<table>
<thead>
<tr>
<th>Model</th>
<th>$X^2$</th>
<th>df</th>
<th>SRMSR</th>
<th>RMSEA</th>
<th>CFI</th>
<th>TLI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hierarchical Model w/o Modifications</td>
<td>429.20</td>
<td>166</td>
<td>.08</td>
<td>.08</td>
<td>.89</td>
<td>.87</td>
</tr>
<tr>
<td>Modified Hierarchical Identified in Focal Study 1</td>
<td>407.18</td>
<td>163</td>
<td>.08</td>
<td>.08</td>
<td>.89</td>
<td>.88</td>
</tr>
<tr>
<td>Addition of One Modification Regarding Item 25</td>
<td>335.03</td>
<td>162</td>
<td>.06</td>
<td>.07</td>
<td>.93</td>
<td>.91</td>
</tr>
</tbody>
</table>

*Note.* All analyses were conducted on an N of 267.

*Examination of Internal Consistency.* Analysis of internal consistency revealed that the alphas for each scale were above the typical .70 cutoff (Nunnally, 1979). The utility, accountability, social awareness, and self-efficacy dimensions had alphas of .88, .73, .85, and .78 respectively. The overall alpha of the scale was .91.

*Evidence of Convergent and Criterion-related Validity.* After thoroughly analyzing the dimensionality and reliability of the Feedback Orientation Scale, validity evidence was explored. Given survey length restrictions (employees were only allowed 30 minutes away from work to complete the survey), only a subset of the hypotheses from Focal Study 1 could be examined with the data from the employee sample. At least one hypothesis for each dimension was tested with the employee sample. Replication of the previous findings in Focal Study 1 would provide evidence for the generalizability of the Feedback Orientation Scale. The correlation matrix found in Table 16 reveals the extent to which additional support was found for the validity the Feedback Orientation Scale and is referred to in the following discussion of hypotheses.
Utility. Based on the variables measured in this sample, Hypotheses 5, 6, 26a, 26c, and 26d were re-examined. Additional evidence for convergent and criterion-related validity was found for the feedback utility dimension in this study. As in Focal Study 1, support was found for Hypotheses 5 and 6. As suggested by Hypotheses 5 and 6, there was a significant relationship between feedback utility and feedback credibility ($r = .32$) and feedback utility and feedback quality ($r = .46$). In addition, support was found for Hypotheses 26a, 26c, and 26d. As predicted by Hypotheses 26a, feedback utility perceptions were a significant predictor of performance appraisal utility perceptions ($\beta = .44$, $p < .05$). In support of Hypothesis 26c, feedback utility perceptions predicted performance appraisal utility perceptions above and beyond feedback credibility ($\Delta R^2 = .08$, $p < .05$). Finally, in support of Hypothesis 26d, feedback utility perceptions predicted performance appraisal utility perceptions above and beyond feedback quality ($\Delta R^2 = .03$, $p < .05$). Hypothesis 26b, which predicted that utility would be predicted
above and beyond job involvement could not be tested using this data given that job involvement was not measured in the current sample.

**Accountability.** Results of Focal Study 2 also provided additional evidence of criterion-related validity for the accountability dimension. Based on the variables included in this study, Hypothesis 28a, which hypothesized that accountability would predict intentions to follow-up on feedback, was re-examined. In support of Hypothesis 28a, feedback accountability was found to predict intentions to follow up on feedback ($\beta = .31, p < .05$). Thus, results from Focal Study 1 pertaining to Hypothesis 28a were replicated in Focal Study 2. In Focal Study 1, it was also demonstrated that accountability predicted intentions to follow-up on feedback above and beyond protestant work ethic (28b) and locus of control (28c). Given restrictions in the survey length, these hypotheses could not be re-examined in the new sample.

**Social Awareness.** Additional evidence of generalizability was also found after examining a hypothesis related to social awareness. Focal Study 1 results pertaining to Hypothesis 29a were replicated in this new sample. As hypothesized, social awareness was a significant predictor of intentions to follow up on feedback ($\beta = .23, p < .05$).

**Feedback Self-Efficacy.** Additional support was also found for one of the two hypotheses regarding the criterion-related validity of feedback self-efficacy that were re-examined in this study. As predicted by Hypothesis 32a, feedback self-efficacy was found to be a significant predictor of performance appraisal session satisfaction ($\beta = .31, p < .05$). Feedback self-efficacy, however, was not found to be a significant predictor of participation in development as was predicted by Hypothesis 33a ($\beta = .09, p > .05$).
**Overall Feedback Orientation.** Additional evidence was also found for convergent validity of the construct as a whole in this study. As suggested by Hypothesis 20a, an individual’s feedback orientation was related to the feedback environment \( (r = .44) \). However, regression analyses revealed that this relationship did not strengthen over time as predicted by Hypothesis 20b.

**Other Analyses.** In addition to exploring dimensionality, reliability, and validity evidence across focal studies, means and standard deviations of the dimensions and the overall scale were also compared (Table 17). Although some dimensions had very similar means and standard deviations across studies (e.g., Self-Efficacy), the overall trend was that means were lower and standard deviations larger in Focal Study 2 with the employee sample. This may be due to differences in the types of samples used. Focal Study 1 was a working student sample (a younger, mostly female sample with both part-time and full-time workers) whereas Focal Study 2 was composed of employees of a manufacturing company (an older, mostly male sample with full-time workers).

### Table 17

<table>
<thead>
<tr>
<th></th>
<th>Focal Study 1</th>
<th>Focal Study 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utility</td>
<td>3.92</td>
<td>3.71</td>
</tr>
<tr>
<td>Accountability</td>
<td>3.81</td>
<td>3.67</td>
</tr>
<tr>
<td>Social Awareness</td>
<td>3.73</td>
<td>3.50</td>
</tr>
<tr>
<td>Self-Efficacy</td>
<td>3.71</td>
<td>3.74</td>
</tr>
<tr>
<td>FOS Overall</td>
<td>3.84</td>
<td>3.53</td>
</tr>
<tr>
<td></td>
<td>.64</td>
<td>.84</td>
</tr>
<tr>
<td></td>
<td>.54</td>
<td>.59</td>
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<td></td>
<td>.56</td>
<td>.75</td>
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<td></td>
<td>.51</td>
<td>.55</td>
</tr>
<tr>
<td></td>
<td>.48</td>
<td>.74</td>
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</tbody>
</table>
Summary of Focal Studies Results

The results of the first focal study suggest that the Feedback Orientation Scale should be further streamlined from five to four dimensions. Items from the defensiveness dimension were removed since they demonstrated a great degree of overlap with the feedback self-efficacy dimension. The remaining four dimensions were utility, accountability, social awareness, and feedback self-efficacy. Evidence was found for the convergent, discriminant, and criterion-related validity of each of these scales. In addition, analyses suggested that each of these scales predicts unique variance in outcomes and adds a valuable piece to the overall Feedback Orientation Scale.

The second focal study found evidence in further support of the four dimensions identified in Focal Study 1 and the reliability of each of these dimensions in an organizational sample. Furthermore, additional support was found for convergent and criterion-related validity. Of the eleven hypotheses revisited in this study, additional support was found for nine of them. These results suggest that the feedback orientation can be effectively used with a working population.
CHAPTER V
DISCUSSION

With the current emphasis on continuous learning and adaptability in organizations, performance feedback becomes particularly important. Using feedback effectively is not an easy task. In fact, Kluger and DeNisi (1996) found in a meta-analysis that one-third of the effects of feedback on performance are negative. Organizations need to consider a number of factors that contribute to the effective use of feedback including the feedback environment/culture in the organization and the degree to which employees are receptive to feedback. While recent research has begun to explore the feedback environment, research on individual differences in how individuals respond to, process, and use feedback has not received much attention. In addition, the research that has been done on individual differences has focused on broad personality traits (such as general self-esteem), which have not proven particularly useful in predicting feedback-relevant behaviors. The purpose of the current study was to develop and validate an instrument that measures feedback specific individual differences, the Feedback Orientation Scale. Using a feedback specific individual difference measure such as this, researchers and practitioners will be able not only to better understand how individual differences influence the feedback process and predict feedback related
behavior, but also to understand how these individual differences interact with situational variables (e.g., the feedback environment) to determine the impact and effectiveness of feedback. Over the course of two pilot studies and two focal studies (about 900 participants overall), the Feedback Orientation Scale was developed (See Appendix G for the final items and validated. Feedback orientation, an individual’s overall receptivity to feedback, was proposed to have six dimensions. These dimensions were defensiveness, utility, processing, accountability, social awareness, and feedback self-efficacy. After the two pilot studies and two focal studies, the final revision of the Feedback Orientation Scale included four dimensions (utility, accountability, social awareness, and feedback self-efficacy). In the following pages, the results of the four studies are discussed. This discussion focuses on dimensionality, reliability, and validity of the Feedback Orientation Scale. In addition, practical implications, limitations, and suggestions for future research are noted.

Dimensionality

Herold, Parsons, and Rensvold’s (1996) individual difference measure specific to feedback was focused very narrowly on individuals’ preferences for internal and external feedback as well as an individual’s ability to self-generate feedback. On the whole, this measure does not seem to adequately capture individual differences that may influence the feedback process. The literature suggests that attitudes towards feedback, self-efficacy, self-esteem, locus of control, learning goal orientation, need for achievement, and public self-consciousness can also influence the feedback process. Recently, London and Smither (2002) proposed a feedback specific individual difference variable, feedback
orientation, that more adequately captures the domain of potential individual differences influencing the feedback process. The current research further explored the determinants of an individual’s feedback orientation, and found substantial empirical support for four dimensions of feedback orientation. Table 18 shows how the dimensions examined in this research relate back to the original dimensions proposed by London and Smither (2002). Two pilot studies and two focal studies explored the six dimensions proposed in the current research. The four dimensions that were overwhelmingly supported across these studies were Utility, Accountability, Social Awareness, and Self-Efficacy. Empirical support for these four dimensions was consistently found using both exploratory and confirmatory factor analyses. In addition, the different samples used in these studies provide evidence for the generalizability of these four dimensions. Working students were recruited for both Pilot Study 2 and Focal Study 1, these students worked in a variety of positions including surgical assistant, machinist, server, retail clerk, receptionist, dental assistant, and restaurant manager. In addition, Focal Study 2 was an organizational sample from a manufacturing company.

While the dimensions of utility, accountability, social awareness, and self-efficacy received substantial empirical support, the processing and defensiveness dimensions, as operationalized in the current research, received less support. With regards to the processing dimension, the items loaded across dimensions. It may be that processing is more of an outcome of Feedback Orientation rather than a dimension of it. This is corroborated by London and Smither’s (2002) model of the performance management cycle. In this model, the authors include feedback processing both as a stage in how
individuals deal with feedback as well as a dimension of feedback orientation, an individual difference variable influencing the stages. As for the defensiveness dimension, these items demonstrated substantial overlap with the feedback self-efficacy dimension. Not only was overlap evident in the results of factor analyses, it was also apparent when examining the convergent, discriminant, and criterion-related validity of each of these dimensions. All but one of the hypotheses proposed for the defensiveness dimension were supported when substituting the feedback self-efficacy dimension. This suggests that these two dimensions are either overlapping constructs or they were operationalized in a way that resulted in substantial overlap. Despite results of this research, defensiveness may still be an important part of an individual’s feedback orientation. The operationalization of defensiveness in the current research was based on London and Smither’s original dimension of “liking feedback (i.e., an overall positive affect toward feedback and an absence, or low level of evaluation apprehension).” Alternative operationalizations of this construct may help to capture the nuances of this dimension, setting it apart from the self-efficacy dimension. For example, looking at this dimension from more of an attributional perspective may be a possibility. This would encompass an individual’s tendency to make attributions about feedback that may allow him/her to discount it and protect his/her ego. Operationalizing defensiveness in an attributional framework may result in items like “When others give me feedback, they often haven’t adequately considered the situation.”

Overall, the overwhelming support for four dimensions (i.e., utility, accountability, social awareness, and self-efficacy) across two pilot studies and two focal
studies suggest that these dimensions are important components for capturing an
individual’s feedback orientation. Three of these dimensions (i.e., utility, accountability,
and social awareness) are based on the dimensions suggested by London and Smither
(2002). The fourth dimension, feedback self-efficacy emerged as an important construct
after reviewing literature on individual differences in the feedback process. The next two
sections discuss additional evidence of reliability and validity supporting these four
dimensions. Future research exploring the domain of feedback orientation can revisit
those dimensions that received less support. For example, it may be useful to explore
feedback processing dimension as an outcome of feedback orientation, as was done with
feedback seeking in the current research. As mentioned above, it may also be valuable to
explore an operationalization of defensiveness different than what was suggested by
London and Smither (2002).
### Table 18

**Discussion of Dimensions**

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Liking feedback: “An overall positive affect toward feedback and an absence, or low level of evaluation apprehension”</td>
<td>Defensiveness: An individual’s tendency to dislike receiving feedback and to react to it negatively</td>
<td>Little empirical support for this operationalization of defensiveness. Future research may want to explore other ways of operationalizing. For example, making attributions to discount feedback and protect your ego.</td>
</tr>
<tr>
<td>Feedback Value: Belief that feedback “offers insights that help the recipient become more effective and that actions taken in response to feedback can enhance personal effectiveness”</td>
<td>Utility: An individual’s tendency to believe that feedback is instrumental in achieving goals or obtaining desired outcomes at work</td>
<td>Substantial empirical support was found for this dimension.</td>
</tr>
<tr>
<td>Accountability: “Feeling accountable to act on the feedback”</td>
<td>Accountability: An individual’s tendency to feel a sense of obligation to act on feedback.</td>
<td>Substantial empirical support was found for this dimension.</td>
</tr>
<tr>
<td>Sensitivity to other’s view of oneself: “Similar to the concept of public self-consciousness and to external propensity”</td>
<td>Social Awareness: An individual’s tendency to use feedback to be aware of other’s views of oneself and to be sensitive to these views</td>
<td>Substantial empirical support was found for this dimension.</td>
</tr>
<tr>
<td>No dimension proposed.</td>
<td>Feedback Self-Efficacy: An individual’s tendency to have confidence in dealing with feedback situations and feedback.</td>
<td>Substantial empirical support was found for this dimension.</td>
</tr>
<tr>
<td>“Cognitive Propensity to process feedback mindfully and deeply”</td>
<td>Feedback Processing: An individual’s tendency to spend time processing and thinking about feedback</td>
<td>Little empirical support for this dimension. May be more appropriate to consider this as an outcome of feedback orientation.</td>
</tr>
<tr>
<td>“Behavioral propensity to seek feedback”</td>
<td>Examined as an outcome of Feedback Orientation.</td>
<td>The current study demonstrated that feedback orientation positively predicts feedback seeking.</td>
</tr>
</tbody>
</table>
Reliability

Overall, there is substantial data supporting the reliability of the Feedback Orientation Scale. According to Hinkin (1995), reliability is too often assessed using only measures of internal consistency and assessing reliability using multiple methods and/or multiple samples is desirable. Given the use of multiple approaches to examine reliability (internal consistency and test-retest) and multiple samples, the results found here provide solid evidence for the reliability of the Feedback Orientation Scale.

The two focal studies suggest that the Feedback Orientation Scale is a reliable instrument. Test-retest reliability was examined in Focal Study 1. Test-retest reliabilities ranged from .54 to .60 for the dimensions and the overall scale had a test retest of .69. In addition to exploring test-retest reliabilities in Focal Study 1, internal consistency was explored in both Focal Study 1 and Focal Study 2. In both studies, these analyses revealed alphas for each dimension that were above the typical .70 cutoff (Nunnally, 1979) with alphas ranging from .73 to .88. In addition, the full scale was found to have an overall alpha of .86 in Focal Study 1 and .91 in Focal Study Two. Looking at alphas across studies, it is important to note that evidence for reliability was found in two very different samples. In Focal Study 1, the sample was composed of working undergraduate students, while in Focal Study 2 the sample was composed of individuals working in a manufacturing organization.
Convergent, Discriminant, and Criterion-Related Validity

The hypotheses examined in Focal Studies 1 and 2 placed the dimensions of Feedback Orientation and the overall construct into a broad nomological network. Finding support for hypothesized relationships provided evidence for the validity of the construct and its dimensions. Furthermore, exploratory regression analyses revealed that feedback orientation dimensions could predict an outcome above and beyond more broad constructs (Tables 11 and 19) and the dimensions were able to add incremental validity above and beyond one another (Table 12). These results provide solid evidence for the unique contribution of each dimension in capturing an individual’s feedback orientation. In the following sections, validity evidence found in Focal Studies 1 and 2 is reviewed.

Utility

Utility is defined as an individual’s tendency to believe that feedback is instrumental in achieving goals or obtaining desired outcomes at work. The utility dimension captures individuals’ beliefs that feedback can lead to other valued outcomes. Research suggests that the perceived usefulness of feedback may be a valuable predictor of reactions to feedback and may influence an individual’s motivation to accept, seek, and use feedback (Brett & Atwater, 2001; Vroom, 1964). The utility dimension developed in the current research helps capture individual differences in the tendency to see feedback as useful.

All hypotheses related to the dimension of utility were supported, suggesting that utility is an important and valid component of feedback orientation. As hypothesized,
utility was positively related to job involvement, feedback credibility, and quality, and unrelated to fear of negative evaluation. Feedback utility predicted perceptions of performance appraisal utility and perceived benefits of developmental activities and it predicted these outcomes above and beyond feedback credibility, feedback quality, and job involvement. Exploratory analyses revealed that when all three of these more general explanatory constructs were entered simultaneously (feedback credibility, feedback quality, and job involvement), utility still predicted additional variance in outcomes with significant changes in $R^2$ ranging from .02 to .03 (see Table 19).
Table 19

Additional Analyses Demonstrating Criterion-Related Validity

<table>
<thead>
<tr>
<th>DV: PA Utility Perceptions</th>
<th>β</th>
<th>R²</th>
<th>ΔR²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Involvement</td>
<td>.13*</td>
<td>.39</td>
<td></td>
</tr>
<tr>
<td>Feedback Credibility</td>
<td>.17*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feedback Quality</td>
<td>.45*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utility</td>
<td>.17*</td>
<td>.41</td>
<td>.02*</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DV: Perceived Benefits of Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1:</td>
</tr>
<tr>
<td>Job Involvement</td>
</tr>
<tr>
<td>Feedback Credibility</td>
</tr>
<tr>
<td>Feedback Quality</td>
</tr>
<tr>
<td>Step 2:</td>
</tr>
<tr>
<td>Utility</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DV: Intentions to Use Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1:</td>
</tr>
<tr>
<td>Protestant Work Ethic</td>
</tr>
<tr>
<td>Locus of Control</td>
</tr>
<tr>
<td>Step 2:</td>
</tr>
<tr>
<td>Accountability</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DV: Role Clarity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1:</td>
</tr>
<tr>
<td>Protestant Work Ethic</td>
</tr>
<tr>
<td>Locus of Control</td>
</tr>
<tr>
<td>Step 2:</td>
</tr>
<tr>
<td>Accountability</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DV: Self-Monitoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1:</td>
</tr>
<tr>
<td>Public Self-Consciousness</td>
</tr>
<tr>
<td>Social Desirability</td>
</tr>
<tr>
<td>Step 2:</td>
</tr>
<tr>
<td>Social Awareness</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DV: Intentions to Use Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1:</td>
</tr>
<tr>
<td>Public Self-Consciousness</td>
</tr>
<tr>
<td>Social Desirability</td>
</tr>
<tr>
<td>Step 2:</td>
</tr>
<tr>
<td>Social Awareness</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>DV: PA Session Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1:</td>
</tr>
<tr>
<td>General Self-Efficacy</td>
</tr>
<tr>
<td>Locus of Control</td>
</tr>
<tr>
<td>Step 2:</td>
</tr>
<tr>
<td>Feedback Self-Efficacy</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DV: Participation in Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1:</td>
</tr>
<tr>
<td>General Self-Efficacy</td>
</tr>
<tr>
<td>Locus of Control</td>
</tr>
<tr>
<td>Step 2:</td>
</tr>
<tr>
<td>Feedback Self-Efficacy</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>DV: Feedback Seeking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1:</td>
</tr>
<tr>
<td>Feedback Environment</td>
</tr>
<tr>
<td>Learning Goal Orientation</td>
</tr>
<tr>
<td>Step 2:</td>
</tr>
<tr>
<td>Feedback Orientation</td>
</tr>
</tbody>
</table>

*p < .05. Beta weights are for step at which variable(s) is (are) entered. DV = Dependent Variable.
Accountability

Accountability refers to an individual’s tendency to feel a sense of obligation to act on feedback. Research has shown that holding individuals accountable to use feedback can lead to performance improvements over time (London et al., 1997). It follows that individuals who tend to feel more accountable toward feedback in general are more likely to use and respond to feedback. To demonstrate the validity of this dimension, its relations with other constructs were explored.

All hypotheses related to accountability were supported. As hypothesized, accountability was positively related to protestant work ethic and locus of control, and was unrelated to public self-consciousness. Accountability was found to predict intentions to use feedback and role clarity. It predicted these outcomes above and beyond protestant work ethic and locus of control. Exploratory analyses revealed that when both of these constructs were entered simultaneously (work ethic and locus of control), accountability still predicted additional variance in outcomes with significant changes in $R^2$ ranging from .02 to .12 (see Table 19).

Social Awareness

While the accountability dimension emphasizes the tendency to feel internal pressures to respond to feedback, social awareness is more the tendency to feel external/social pressure to be aware of and to respond to feedback. An awareness of oneself as a social object has been found to influence an individual’s desire for feedback and feedback seeking behaviors (Levy et al., 1995; London et al., 1999). Social
awareness is defined here as an individual’s tendency to use feedback to be aware of other’s views of oneself and to be sensitive to these views.

Only one hypothesis exploring the validity of this dimension was not supported. Although the hypothesized relationship with social desirability was not found, social awareness had a positive relationship with public self-consciousness. As hypothesized there was no relationship between social awareness and general self-efficacy. Furthermore, social awareness was found to predict self-monitoring and intentions to use feedback and it predicted these outcomes above and beyond public self-consciousness and social desirability. Exploratory analyses revealed that when both public self-consciousness and social desirability were entered simultaneously, social awareness still predicted additional variance in outcomes with significant changes in $R^2$ ranging from .05 to .20 (see Table 19).

**Feedback Self-efficacy**

Although researchers agree that self-esteem and self-efficacy have important effects on the feedback process and feedback behavior, there is little agreement on the nature of these effects. The conflicting research findings are most likely due to the broadness of these constructs. The feedback self-efficacy dimension, an individual’s tendency to have confidence in dealing with feedback situations and feedback, measures an individual’s self-efficacy as it relates specifically to feedback. This more specific measure can be used to provide a clearer picture of how self-esteem and self-efficacy influence the feedback process and feedback behavior.
All hypotheses related to this dimension were supported (although one of these hypotheses was not replicated in the second study). Feedback self-efficacy had positive relationships with general self-efficacy and locus of control, providing evidence of convergent validity. Feedback self-efficacy predicted satisfaction with the performance appraisal sessions and supervisor ratings of participation in development (but not self-ratings of participation in Focal Study 2) and it predicted these outcomes above and beyond general self-efficacy and locus of control. Exploratory analyses in Focal Study 1 revealed that when both general self-efficacy and locus of control were entered simultaneously, feedback self-efficacy still predicted additional variance in outcomes with significant changes in $R^2$ ranging from .06 to .11 (see Table 19).

**Feedback Orientation Overall**

In addition to finding validity evidence for the individual dimensions, evidence was also found for the construct overall. Feedback Orientation was found to be positively related to the feedback environment. However, this relationship was not found to strengthen over time as predicted. Thus, the degree to which feedback orientation can develop or change overtime is still unclear. One potential explanation is that the feedback environment only has influence up to a certain point and does not have continuous effects on feedback orientation in the long run. For example, once an individual begins in a new feedback environment it is possible that this environment has the strongest influence on an individual’s feedback orientation during the first year of socialization, but that in subsequent years the feedback orientation is more stable. A post hoc test of this notion was done using data collected in Focal Study 2. Dichotomizing the
length of time an individual had been in his/her supervisor feedback environment into one year or less and more than one year resulted in a significant interaction ($\beta = -.77, p = .05$) between time and feedback environment when predicting feedback orientation. Examining this interaction in more detail showed that individuals with their supervisor one year or less had a stronger relationship between feedback environment and feedback orientation than those who were with their supervisor one year or more (see Figure 5). Overall, these results suggest that additional research is needed to understand how feedback orientation can evolve or change over time. It may be particularly interesting to examine how an individual’s feedback orientation may change as the individual changes jobs, supervisors, or situations. Furthermore, examining the influence of an individual’s Feedback Orientation on behavioral outcomes in strong (e.g., a very structured performance review with planned follow-up) versus weak (e.g., less structured or understood performance review process) situations may be particularly interesting.
Feedback orientation was also positively related to learning goal orientation. While there was a moderate relationship between positive affect and feedback orientation, feedback orientation was not related to social desirability or negative affect. These results provide some evidence of discriminant validity. Finally, feedback orientation predicted feedback seeking and it predicted this outcome above and beyond the feedback environment and learning goal orientation (even when both were entered simultaneously). The ability of the Feedback Orientation Scale to predict feedback seeking above and beyond the Feedback Environment Scale is particularly impressive given that this scale includes a promotion of feedback seeking dimension.
In summary, substantial support was found for the reliability and validity of the four of the six proposed dimensions of feedback orientation as well as the overall construct. In fact, 43 of the 47 hypotheses related to these dimensions were supported in Focal Study 1. Exploratory analyses on these data also suggest that each dimension uniquely contributed to the overall construct and is able to predict variance in feedback-related outcomes even after controlling for other relevant predictors (see Table 19). Additional validity evidence was also found in Focal Study 2, which examined a subset of hypotheses with an organizational sample. Although there were length restrictions for the survey, at least one hypothesis was tested (and supported) for each dimension. Out of the 11 hypotheses that were re-examined in this sample, 9 of them were supported. The replication of previous findings and the overall pattern of results provide strong support for the validity of the measure and its generalizability beyond a working student sample.

Implications

As a result of the current research, a reliable and valid measure of Feedback Orientation that assesses multiple dimensions was developed. The domain of Feedback Orientation was initially hypothesized to include six dimensions. The results of two pilot studies and two focal studies found substantial support for four of the six proposed dimensions. These four dimensions, utility, accountability, social awareness, and feedback self-efficacy, are important for furthering our understanding of how individuals respond to, process, and use feedback.

From a research perspective, the Feedback Orientation Scale provides greater insight into the impact that individual differences have on the feedback process and can
facilitate better prediction of feedback related behaviors. Previous research on individual differences has provided unclear and inconsistent results, most likely due to the emphasis on broad constructs such as self-esteem and locus of control. Including measures of individual differences more specific to feedback, such as the Feedback Orientation Scale, furthers our understanding of how individuals can influence the feedback process. Each dimension on the Feedback Orientation Scale can provide the researcher with unique insight. For example, the accountability dimension may be particularly useful in understanding how individual differences influence individual’s tendency to use and follow-up on feedback. Using this dimension, researchers can also examine how this individual difference interacts with aspects of the situation to influence an individual’s behavior. The self-efficacy dimension can contribute to our understanding of how individuals react to both positive and negative feedback and deal with feedback situations. The social awareness dimension can help us understand why people seek feedback and the utility dimension can help us understand why some people spend more time thinking about and processing feedback. Research using this scale can also investigate how to shape or change an individual’s feedback orientation through training, coaching, or through interventions to change the feedback environment. In addition, it would be interesting to explore how strong situations (e.g., a well defined feedback environment) can help individuals with a negative feedback orientation become more successful with dealing with and responding to feedback. Another avenue of research could be to explore what types of feedback environments are the best fits based on an individual’s feedback orientation. In other words, what environments are more
conducive to success and effectiveness for individuals at various levels of Feedback Orientation.

For practitioners, this scale can be used as a diagnostic tool providing valuable insight into the degree to which an individual is open or receptive to feedback. Understanding an individual’s feedback orientation will provide insight into the degree to which an individual will be open and responsive to developmental interventions. For example, this scale could be administered as part of an assessment center to determine how open an individual is to developmental feedback. If the individual is not open to feedback, this may determine how feedback is provided and can provide a starting place for coaching the individual. Furthermore, providing an individual with feedback on his or her openness to feedback may also help that individual better understand why others (e.g., direct reports) do not feel comfortable sharing their ideas or opinions. Using the Feedback Orientation Scale together with the Feedback Environment Scale, a company can gain valuable insight into how feedback is used and responded to within the organization. Using these diagnostic tools, the company will gain direction for shaping a more supportive feedback environment or matching individuals to an appropriate feedback environment as well as coaching individuals to be more receptive to feedback.

Overall, researchers and practitioners can both benefit from using this instrument. They may choose to administer the whole scale or just selected dimensions based on their interests. Each dimension is composed of five positively worded items and one negatively worded item. The scale can be administered with or without the reverse coded items. These items are intended to be “cognitive speed bumps” to identify careless
responding (and should not be included in calculating scale scores). If this is not a concern of the researcher or practitioner or if there is another method available for identifying careless responding, these items need not be used.

Limitations and Future Research

Although this research carefully adhered to “best practices” for defining and measuring a new construct (Hinkin, 1995; Spector, 1992), there are still some limitations in the current studies and plenty of opportunities to build on the current findings.

One limitation is that many studies are based primarily on self-reports. This can result in common method variance that has the potential to bias results. Supervisor ratings were obtained in Focal Study 1 to reduce the potential influence of common method variance on results. For example, feedback self-efficacy was a positive predictor of supervisor-reported participation in development. The results found using supervisor ratings suggest that while common method variance may inflate relationships, it is not solely responsible for the findings in the current research. Future research should continue to examine the relationships between Feedback Orientation and other constructs using a variety of sources. For example, examining how an individual’s score on the Feedback Orientation Scale relates to supervisor and/or direct reports of openness to feedback and two-way communication may further demonstrate that the results found in this study are not solely due to common method variance.

Further development of the nomological network for the dimensions and the construct as a whole would also be beneficial. In particular, it may be valuable to revisit the domain of the construct to ensure that the four dimensions identified here are
adequately capturing the construct. With additional research, one might find that the processing and defensiveness dimensions (or other newly identified dimensions) may contribute to our ability to capture and understand one’s overall feedback orientation.

Finally, longitudinal research on the development and shaping of feedback orientation is another area for additional research. It was predicted that the relationship between the feedback environment and the feedback orientation would strengthen the longer the individual is in that feedback environment. That is, long-term experience with a particular feedback environment is likely to impact one’s feedback orientation. The development of feedback orientation is most likely too complicated to adequately capture in cross-sectional data. A study that follows individuals as they change jobs, supervisors, or companies may be insightful for understanding how individuals’ feedback orientations can develop and change over time. Another possibility would be to examine how training or coaching can influence feedback orientation.

Conclusions

Both situational factors and individual differences can influence how individuals respond to, process, and use feedback. While research has already begun to further our understanding of the feedback environment (Norris-Watts & Levy, 2004; Rosen et al., 2006; Steelman et al., 2004), understanding context alone is not sufficient. It is also important to further our understanding of how individual differences and the combination of individual differences and situational factors influence the feedback process.

The purpose of this research was to define and develop a measure of an individual difference specific to feedback called feedback orientation. The data collected provides
support for the dimensionality, reliability, and validity of this new measure. Developing this measure opens the door for more research and understanding surrounding the influence of individual differences on the feedback process.
CHAPTER VI

SUMMARY

Feedback orientation, proposed by London and Smither (2002), is an individual’s overall receptivity to feedback. The present study supports the idea that feedback orientation is a multidimensional construct, composed of at least four dimensions. These dimensions are utility, accountability, social awareness, and feedback self-efficacy. Utility is an individual’s tendency to believe that feedback is instrumental in achieving goals or obtaining desired outcomes at work. Accountability is an individual’s tendency to feel a sense of obligation to act on feedback. Social Awareness is an individual’s tendency to use feedback to be aware of other’s views of oneself and to be sensitive to these views. Feedback Self-Efficacy is an individual’s tendency to have confidence in dealing with feedback situations and feedback.

The feedback-specific nature of Feedback Orientation and its dimensions make it particularly valuable for identifying and understanding how individual differences influence the feedback process. For example, in the first stage of perception, social awareness and perceptions of utility may lead to a greater likelihood of perceiving feedback. In the second stage of acceptance, perceptions of utility may affect an individual’s willingness to accept and process feedback. Finally, with regard to the last two stages, individuals who have greater feedback self-efficacy and who feel more
accountable for responding to feedback may be more likely to have the desire and the
intention to make changes in their behavior based on the feedback.

The present research developed and validated an instrument for measuring this
construct. The first pilot study asked SMEs to provide feedback on the six dimensions
that were initially proposed and the items written to capture these dimensions. This
feedback was used to revise dimensions and eliminate items. After problem items were
removed, additional items were written to once again have a pool of 64 items. In the
second pilot study, these 64 items were administered to a large sample of working
students. The dimensionality and reliability of items were explored to guide additional
revisions of the scale. As a result of analyses, one dimension of the original six feedback
orientation dimensions, feedback processing, was eliminated. Items from the feedback
processing dimension loaded across other dimensions. In addition to eliminating this
dimension, the analyses of dimensionality and reliability helped identify the strongest
items for the remaining dimensions. Five items were retained for the utility dimension,
five for the defensiveness scale, three for the social awareness scale, three for the
feedback self-efficacy scale, and four for the accountability scale. Before the first focal
study, additional items were written to ensure that each scale had 5 items. After all the
revisions made in these two pilot studies, the resulting Feedback Orientation Scale had 5
dimensions and 30 items.

In the first focal study, the scale resulting from the first two pilot studies was
administered to a sample of working students. In addition, their supervisors were asked
to complete a number of items to help establish the validity of the scale. Analysis of
dimensionality suggested that the Feedback Orientation Scale should be further streamlined from five to four dimensions. The defensiveness dimension was removed because it demonstrated a great degree of overlap with the feedback self-efficacy dimension. The remaining four dimensions were utility, accountability, social awareness, and feedback self-efficacy. Evidence was found for the convergent, discriminant, and criterion-related validity of each of these dimensions with 43 of 47 hypotheses being supported. In addition, analyses suggested that each of these scales predicts unique variance in outcomes and adds a valuable piece to the overall Feedback Orientation Scale. The second focal study used an employee sample to explore the generalizability of the Feedback Orientation Scale. Additional support was found for the four dimensions and the reliability of each of these dimensions. Furthermore, additional support was found for convergent and criterion-related validity. Of the eleven hypotheses revisited in this study, additional support was found for nine of them. The replication of previous findings and the overall pattern of results provided strong support for the validity of the measure and its generalizability beyond a working student sample. These results suggest that the Feedback Orientation Scale can be effectively used with a working population.

In summary, across 2 pilot studies and 2 focal studies substantial support was found for the reliability and validity of the four dimensions of feedback orientation as well as the overall construct. This scale will be a valuable tool for furthering our understanding of individual differences in the feedback process.
REFERENCES


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APPENDIX A

PILOT STUDY 1 AND 2 ITEM POOL

*Changed from processing to defensiveness dimension after first pilot study
-Removed item after first pilot study
+ Added item after first pilot study

1. Receiving both positive and negative feedback is important to me. (R)
2. I like to get feedback after completing a task. (R)
3. Getting feedback makes me uncomfortable.
4. I dislike receiving feedback.
5. I value the feedback I receive.
6. I find feedback satisfying.
7. I am willing to seek feedback.
8. I am open to receiving feedback. *
9. I try to avoid getting feedback from my supervisor and/or coworkers. *
10. I get defensive when I receive feedback. *
11. My initial response to feedback is generally negative. *
12. I wish that I got more feedback at work. -
13. Supervisors should give feedback to their employees. -
14. Feedback is very important. –
15. Feedback from others really matters to me. –
16. Feedback is unattractive to me. –

1. Feedback contributes to my success at work.
2. I am able to develop professionally using the feedback I receive.
3. Feedback is critical for improving performance.
4. Feedback from supervisors can help me advance in the company.
5. Most feedback is useless. (R)
6. I find that feedback is critical for reaching my goals.
7. Feedback is very useful for personal improvement.
8. To develop my skills at work, I rely on feedback.
9. Feedback does little to improve performance. (R)
10. Responding feedback can improve my interactions with others. -
11. I don’t find that feedback contributes to my success at work. (R) +
12. Feedback is worthless for helping me develop professionally. (R) +
1. After I get feedback, I spend time thinking about it before deciding how to respond.
2. I tend to ignore the feedback I receive. (R)
3. I consider several different options before responding to feedback.
4. I often discuss the feedback I get.
5. I listen carefully to feedback.
6. Feedback from others should definitely be considered carefully.
7. Feedback should be thought about in depth.
8. I often ask questions to better understand feedback I receive.
9. It is a waste of time to think a lot about feedback.
10. I don’t spend time thinking about the feedback I receive.
11. I like to spend as little time as possible discussing feedback.

1. I generally follow up on the feedback I receive.
2. It is my responsibility to utilize feedback to improve my performance.
3. I hold myself accountable to respond to feedback appropriately.
4. When given feedback, I make sure to apply it in the future.
5. I don’t feel a sense of closure until I respond to feedback.
6. I would feel irresponsible if I did not use the feedback I received to develop myself.
7. If my supervisor gives me feedback, it is my responsibility to respond to it.
8. I do not feel accountable for responding to the feedback I receive.
9. Following up on feedback is a waste of time.
10. It is not my job to respond to the feedback of others.
11. Following up on feedback is low on my list of priorities.
12. It doesn’t bother me if I fail to apply the feedback I receive.
13. I often avoid responding to the feedback I receive.

1. I do not care about the feedback other’s have for me.
2. I try to be aware of what other people think of me.
3. Responding to feedback helps me make a good impression.
4. Others will perceive me more favorably if I respond to feedback.
5. My coworkers and supervisor will notice the changes I make as a result of feedback.
6. Feedback lets me know how I am perceived by others.
7. Using feedback I can be more effective in social situations.
8. Getting feedback from others contributes to my ability to adapt to different social situations.
9. I use feedback to determine how to act in different situations.
10. I like feedback because it lets me know how I am perceived by others.
11. I respond to feedback so others will see me favorably.
12. Using feedback, I am more aware of what people think of me.
13. The perceptions other’s have of me are not important.
14. Feedback provides little insight into what others think about me. (R) +
15. Responding to feedback does not affect other’s opinions of me. (R) +

1. Even when I get negative feedback, I am certain I can handle it.
2. I feel confident to deal with situations where I will be given feedback.
3. I know how to respond when I am given feedback.
4. I am capable of interpreting feedback accurately.
5. When I get feedback, I am often unsure of how to handle it. (R)
6. I feel self-assured when dealing with feedback.
7. Compared to others, I am more competent at handling feedback.
8. I believe that I have the ability to deal with feedback effectively.
9. I am not confident when responding to feedback.
10. If I wanted to, I could effectively respond to feedback. –
11. One of my strengths is understanding how to use feedback. -
12. I often feel insecure when receiving feedback. (R) +
13. I never feel prepared for situations where I receive feedback. (R) +
APPENDIX B

THE FEEDBACK ORIENTATION SCALE USED IN FOCAL STUDY 1

Defensiveness
1. Getting feedback makes me uncomfortable.
2. I dislike receiving feedback.
3. I am open to receiving feedback.
4. I get defensive when I receive feedback.
5. My initial response to feedback is generally negative.
6. I try to avoid getting feedback from my supervisors and/or coworkers.

Utility
7. Feedback contributes to my success at work.
8. To develop my skills at work, I rely on feedback.
10. Feedback from supervisors can help me advance in a company.
11. I find that feedback is critical for reaching my goals.

Accountability
13. It is my responsibility to apply feedback to improve my performance.
14. I hold myself accountable to respond to feedback appropriately.
15. I don’t feel a sense of closure until I respond to feedback.
16. If my supervisor gives me feedback, it is my responsibility to respond to it.
17. I do not feel accountable for responding to the feedback I receive.
18. I feel obligated to make changes based on feedback.

Social Awareness
19. I try to be aware of what other people think of me.
20. Using feedback, I am more aware of what people think of me.
21. Feedback helps me manage the impression I make on others.
22. The perceptions other’s have of me are not important.
23. Feedback lets me know how I am perceived by others.
24. I rely on feedback to help me make a good impression.
Feedback Self-Efficacy
25. I feel self-assured when dealing with feedback.
26. Compared to others, I am more competent at handling feedback.
27. I often feel insecure when receiving feedback.
28. I believe that I have the ability to deal with feedback effectively.
29. I feel confident when responding to both positive and negative feedback.
30. I know that I can handle the feedback that I receive.
APPENDIX C

SCALES ADMINISTERD TO PARTICPANTS IN FOCAL STUDY 1

FEEDBACK SEEKING
1. I often ask my co-workers how they think I am performing.
2. Compared to other employees, I ask for more feedback from my co-workers than they do.
3. I often ask my supervisor how he or she thinks I am performing.
4. Compared to other employees, I ask for more feedback from my supervisor than they do.

INTENTIONS TO USE FEEDBACK
1. I intend to change my work behaviors based on feedback I have received from my coworkers.
2. I plan to improve my job performance based on feedback that has been provided to me by my coworker.
3. I intend to change my work behaviors based on feedback I have received from my supervisor.
4. I plan to improve my job performance based on feedback that has been provided to me by my supervisor.

FEEDBACK ENVIRONMENT
1. My supervisor is generally familiar with my performance on the job.
2. In general, I respect my supervisor’s opinions about my job performance.
3. With respect to job performance feedback, I usually do not trust my supervisor.
4. My supervisor is fair when evaluating my job performance.
5. I have confidence in the feedback my supervisor gives me.

6. My supervisor gives me useful feedback about my job performance.
7. The performance feedback I receive from my supervisor is helpful.
8. I value the feedback I receive from my supervisor.
9. The feedback I receive from my supervisor helps me do my job.
10. The performance information I receive from my supervisor is generally not very meaningful.
11. My supervisor is supportive when giving me feedback about my job performance.
12. When my supervisor gives me performance feedback, he or she is considerate of my feelings.
13. My supervisor generally provides feedback in a thoughtless manner.
14. My supervisor does not treat people very well when providing performance feedback.
15. My supervisor is tactful when giving me performance feedback.
16. When I do a good job at work my supervisor praises my performance.
17. I seldom receive praise from my supervisor.
18. My supervisor generally lets me know when I do a good job at work.
19. I frequently receive positive feedback from my supervisor.
20. When I don't meet deadlines, my supervisor lets me know.
21. My supervisor tells me when my work performance does not meet organizational standards.
22. On those occasions when my job performance falls below what is expected, my supervisor lets me know.
23. On those occasions when I make a mistake at work, my supervisor tells me.
24. My supervisor is usually available when I want performance information.
25. My supervisor is too busy to give me feedback.
26. I have little contact with my supervisor.
27. I interact with my supervisor on a daily basis.
28. The only time I receive performance feedback from my supervisor is during my performance review.
29. My supervisor is often annoyed when I directly ask for performance feedback.
30. When I ask for performance feedback, my supervisor generally does not give me the information right away.
31. I feel comfortable asking my supervisor for feedback about my work performance.
32. My supervisor encourages me to ask for feedback whenever I am uncertain about my job performance.

ROLE CLARITY
1. I know exactly what is expected of me.
2. I know that I have divided my time properly.
3. Explanation is clear of what has to be done.
4. I feel certain about how much authority I have.
5. I know what my responsibilities are.
6. Clear, planned goals and objectives exist of my job.

PERFORMANCE
1. I adequately complete assigned duties.
2. I fulfill responsibilities specified in job description.
3. I perform tasks that are expected of me.
4. I meet formal performance standards of the job.
5. I engage in activities that will directly affect my performance evaluation.
6. I neglect aspects of the job that I am obligated to perform.
7. I fail to perform essential duties.
8. I help others who have been absent.
9. I help others who have heavy work loads.
10. I assist my supervisor with his/her workload (when not asked)
11. I take time to listen to co-workers’ problems and worries.
12. I go out of my way to help new employees.
13. I take a personal interest in other employees.
14. I pass along information to co-workers.
15. My attendance at work is above the norm.
16. I give advance notice when unable to come to work.
17. I take undeserved work breaks.
18. I spend a great deal of time with personal phone conversations.
19. I complain about insignificant things at work.
20. I conserve and protect organizational property.
21. I adhere to informal rules devised to maintain order.

PA SESSION SATISFACTION
1. I felt quite satisfied with my last review discussion.
2. I feel good about the way the last review discussion was conducted.
3. My manager conducts a very effective review discussion with me.

PA UTILITY PERCEPTIONS
1. The performance review helped me learn how I can do my job better.
2. I learned a lot from the performance review.
3. The performance review helped me understand my mistakes.
4. I have a clearer idea of what my manager expects from me because of the performance review.

PARTICIPATION IN DEVELOPMENT
1. Taken a college or continuing education course for my job.
2. Used pre-recorded tapes audio/video.
3. Taken a career-related training class, workshop, or seminar.
5. Consulted with a career counselor.
6. Worked to learn a new skill on the job.
7. Worked on or practiced a specific skill “on the job.”
8. Tried to improve a specific attributed of my self while I was doing the work required of my job.
9. Participated in a special project, task, or committee assignment.
10. Received coaching from a supervisor.
11. Taken a different job assignment on a temporary basis.
12. Worked on a career/professional development plan.
13. Participated in an assessment at work which provided formal feedback on my strengths, weaknesses, or style.
14. Relied on a special or close relationship of some kind to get career-related advice or suggestions.
15. Attended an organized event which focused on future career issues/plans.

PERCEIVED BENEFITS OF PARTICIPATION
1. If I participate in training and learning activities, I will be more well rounded and a better person overall, at work and outside of work.
2. Training and development activities are likely to help me develop and reach my full potential as a person.
3. Training and development activity participation will not help my personal development, self-esteem, self-confidence, etc. (R)
4. I think learning and development activities related to my career would be very beneficial to me.
5. Career-related training and development activities seem very worthwhile to me.
6. If I participate in work-relevant learning activities, my work would likely be more interesting as a result.
7. My participation in learning or training activities will not make a difference in how interesting my work is. (R)
8. I am likely to get more interesting work assignments and more stimulating work if I participate in training and development activities.
9. Better pay or other rewards are likely to result from my participation in training and development activities.
10. Training and learning activities are not likely to help me get better pay or other rewards. (R)
11. Participation in learning activities will help me get promotions into higher level jobs with better pay and rewards.

JOB INVOLVEMENT
1. The most important things that happen to me involve my present job.
2. To me, my job is only a small part of who I am. (R)
3. I am very much involved personally in my job.
4. I live, eat and breathe my job.
5. Most of my interests are centered around my job.
6. I have very strong ties with my present job which would be very difficult to break.
7. Usually I feel detached from my job. (R)
8. Most of my personal goals are job-oriented.
9. I consider my job to be very central to my existence.
10. I like to be absorbed in my job most of the time.
LOCUS OF CONTROL
1. A job is what you make of it. (R)
2. On most jobs, people can pretty much accomplish whatever they set out to accomplish. (R)
3. If you know what you want out of a job, you can find a job that gives it to you. (R)
4. If employees are unhappy with a decision made by their boss, they should do something about it. (R)
5. Getting the job you want is mostly a matter of luck.
6. Making money is primarily a matter of good fortune.
7. Most people are capable of doing their jobs well if they make the effort. (R)
8. In order to get a really good job you need to have family members or friends in high places.
9. Promotions are usually a matter of good fortune.
10. When it comes to landing a really good job, who you know is more important than what you know.
11. Promotions are given to employees who perform well on the job. (R)
12. To make a lot of money you have to know the right people.
13. It takes a lot of luck to be an outstanding employee on most jobs.
14. People who perform their jobs well generally get rewarded for it. (R)
15. Most employees have more influence on their supervisors than they think they do. (R)
16. The main difference between people who make a lot of money and people who make a little money is luck.

RESISTANCE TO CHANGE
1. I generally consider changes to be a negative thing.
2. I’ll take a routine day over a day full of unexpected events any time.
3. I like to do the same old things rather than try new and different ones.
4. Whenever my life forms a stable routine, I look for ways to change it.
5. I’d rather be bored than surprised.
6. If I were to be informed that there’s going to be a significant change regarding the way things are done at work, I would probably be stressed.
7. When I am informed of a change of plans, I tense up a bit.
8. When things don’t go according to plans, it stresses me out.
9. If my boss changed the criteria for evaluating employees, it would probably make me feel uncomfortable even if I thought I’d do just as well without having to do any extra work.
10. Changing plans seems like a real hassle to me.
11. Often, I feel a bit uncomfortable, even about changes that potentially improve my life.
12. When someone pressures me to change something, I tend to resist even if I think the change may ultimately benefit me.
13. I sometimes find myself avoiding changes that I know will be good for me.
15. Once I’ve come to a conclusion, I’m not likely to change my mind.
16. I don’t change my mind easily.
17. My views are consistent over time.

PROTESTANT WORK ETHIC
1. Most people spend too much time in unprofitable amusements.
2. Our society would have fewer problems if people had less leisure time.
3. Money acquired easily (such as through gambling or speculation) is usually spent unwisely.
4. There are few satisfactions equal to the realization that one has done his or her best at a job.
5. The most difficult college courses usually turn out to be the most rewarding.
6. Most people who don’t succeed in life are just plain lazy.
7. The self-made individual is likely more ethical than the person born to wealth.
8. I often feel that I would be more successful if I sacrificed certain pleasures.
9. People should have more leisure time to spend in relaxation. (R)
10. Anyone willing to work hard has a good chance of succeeding.
11. People who fail at a job have usually not tried hard enough.
12. Life would have very little meaning if we never had to suffer.
13. Hard work offers little guarantee of success. (R)
14. The credit card is a ticket to careless spending.
15. Life would be more meaningful if we had more leisure time. (R)
16. The person who can approach an unpleasant task with enthusiasm is the person who gets ahead.
17. If people work hard enough, they are likely to make a good life for themselves.
18. I feel uneasy when there is little work for me to do.
19. A distaste for hard work usually reflects a weakness of character.

LEARNING GOAL ORIENTATION
1. The opportunity to do challenging work is important to me.
2. When I fail to complete a difficult task, I plan to try harder the next time I work on it.
3. I prefer to work on tasks that force me to learn new things.
4. The opportunity to learn new things is important to me.
5. I do my best when I’m working on a fairly difficult task.
6. I try hard to improve on my past performance.
7. The opportunity to extend the range of my abilities is important to me.
8. When I have difficulty solving a problem, I enjoy trying different approaches to see which one will work.

GENERAL SELF-EFFICACY
1. I will be able to achieve most of the goals that I have set for myself.
2. When facing difficult tasks, I am certain that I will accomplish them.
3. In general, I think that I can obtain outcomes that are important to me.
4. I believe I can succeed at most any endeavor to which I set my mind.
5. I will be able to successfully overcome many challenges.
6. I am confident that I can perform effectively on many different tasks.
7. Compared to other people, I can do most tasks very well.
8. Even when things are tough, I can perform quite well.

PUBLIC SELF-CONSCIOUSNESS
1. I’m concerned about my style of doing things.
2. I’m concerned about the way I present myself.
3. I’m self-conscious about the way I look.
4. I usually worry about making a good impression.
5. One of the last things I do before I leave my house is look in the mirror.
6. I’m concerned about what other people think of me.
7. I’m usually aware of my appearance.

FEAR OF NEG EVALUATION
1. I worry about what other people will think of me even when I know it doesn’t make any difference.
2. I am unconcerned even if I know people are forming an unfavorable impression of me. (R)
3. I am frequently afraid of other people noticing my shortcomings.
4. I rarely worry about what kind of impression I am making on someone. (R)
5. I am afraid that others will not approve of me.
6. I am afraid that people will find fault with me.
7. Other people’s opinions of me do not bother me. (R)
8. When I am talking to someone, I worry about what they may be thinking about me.
9. I am usually worried about what kind of impression I make.
10. If I know someone is judging me, it has little effect on me. (R)
11. Sometimes I think I am too concerned with what other people think of me.
12. I often worry that I will say or do the wrong things.

SELF-MONITORING
1. In social situations, I have the ability to alter my behavior if I feel that something else is called for.
2. I am often able to read people’s true emotions correctly through their eyes.
3. I have the ability to control the way I come across to people, depending on the impression I wish to give them.
4. In conversations, I am sensitive to even the slightest change in the facial expression of the person I’m conversing with.
5. My powers of intuition are quite good when it comes to understanding others’ emotions and motives.
6. I can usually tell when others consider a joke to be in bad taste, even though they may laugh convincingly.
7. When I feel that the image I am portraying isn’t working, I can readily change it to something that does.
8. I can usually tell when I’ve said something inappropriate by reading it in the listener’s eyes.
9. I have trouble changing my behavior to suit different people and situations.
10. I have found that I can adjust my behavior to meet the requirements of any situation I find myself in.
11. If someone is lying to me, I usually know it at once from that person’s manner of expression.
12. Even when it might be to my advantage, I have difficulty putting up a good front.
13. Once I know what the situation calls for, it’s easy for me to regulate my actions accordingly.

BALANCED INVENTORY OF DESIRABLE RESPONDING
1. I sometimes tell lies if I have to.
2. I never cover up my mistakes.
3. There have been occasions when I have taken advantage of someone.
4. I never swear.
5. I sometimes try to get even rather than forgive and forget.
6. I always obey laws, even if I’m unlikely to get caught.
7. I have said something bad about a friend behind his or her back.
8. When I hear people talking privately, I avoid listening.
9. I have received too much change from a salesperson without telling him or her.
10. I always declare everything at customs.
11. When I was young I sometimes stole things.
12. I have never dropped litter on the street.
13. I sometimes drive faster than the speed limit.
14. I never read sexy books or magazines.
15. I have done things that I don’t tell other people about.
16. I never take things that don’t belong to me.
17. I have taken sick-leave from work or school even though I wasn’t really sick.
18. I have never damaged a library book or store merchandise without reporting it.
19. I have some pretty awful habits.
20. I don’t gossip about other people’s business.

PANAS
1. interested
2. distressed
3. excited
4. upset
5. strong
6. guilty
7. scared
8. hostile
9. enthusiastic
10. proud
11. irritable
12. alert
13. ashamed
14. inspired
15. nervous
16. determined
17. attentive
18. jittery
19. active
20. afraid
APPENDIX D

SCALES ADMINISTERED TO PARTICIPANTS’ SUPERVISORS IN FOCAL STUDY 1

PERFORMANCE
1. Adequately completes assigned duties.
2. Fulfills responsibilities specified in job description.
3. Performs tasks that are expected of him/her.
5. Engages in activities that will directly affect his/her performance evaluation.
6. Neglect aspects of the job that he/she is obligated to perform. (R)
7. Fails to perform essential duties.
8. Helps others who have been absent.
9. Helps others who have heavy work loads.
10. Assists supervisor with his/her workload (when not asked)
11. Takes time to listen to co-workers’ problems and worries.
12. Goes out of his/her way to help new employees.
13. Takes a personal interest in other employees.
14. Passes along information to co-workers.
15. Attendance at work is above the norm.
16. Gives advance notice when unable to come to work.
17. Takes undeserved work breaks.
18. Spends a great deal of time with personal phone conversations.
19. Complains about insignificant things at work.
20. Conserves and protects organizational property.
21. Adheres to informal rules devised to maintain order.

FEEDBACK SEEKING
1. Often asks how I think he/she is performing.
2. Compared to other employees, asks for more feedback.
PARTICIPATION IN DEVELOPMENT

1. Taken a college or continuing education course.
2. Taken a career-related training class, workshop, or seminar.
3. Worked to learn a new skill on the job.
4. Worked on or practiced a specific skill “on the job.”
5. Participated in a special project, task, or committee assignment.
6. Taken a different job assignment on a temporary basis.
7. Worked on a career/professional development plan.
8. Participated in an assessment at work which provided formal feedback on his/her strengths, weaknesses, or style.
9. Relied on a special or close relationship of some kind to get career-related advice or suggestions.
10. Attended an organized event which focused on future career issues/plans.
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FOCAL STUDY 1 CORRELATIONS BETWEEN DIMENSIONS AND OUTCOMES

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*p < .05. Uti = Utility; Acc = accountability; Soc = Social Awareness; Sel = Feedback self-efficacy; FOS = Feedback Orientation Scale Overall.
APPENDIX G

FINAL VERSION OF THE FEEDBACK ORIENTATION SCALE

Instructions: Administer these items using a scale of “Strongly Disagree” to “Strongly Agree.” Reverse scored items can be used to identify careless respondents or the scale can be administered without them. The reverse scored items should NOT be used to compute scale scores or in data analysis.

Utility
1. Feedback contributes to my success at work.
2. To develop my skills at work, I rely on feedback.
3. Feedback is critical for improving performance.
4. Feedback from supervisors can help me advance in a company.
5. I find that feedback is critical for reaching my goals.
6. Feedback does little to improve performance. (R)

Accountability
1. It is my responsibility to apply feedback to improve my performance.
2. I hold myself accountable to respond to feedback appropriately.
3. I don’t feel a sense of closure until I respond to feedback.
4. If my supervisor gives me feedback, it is my responsibility to respond to it.
5. I feel obligated to make changes based on feedback.
6. I do not feel accountable for responding to the feedback I receive. (R)

Social Awareness
1. I try to be aware of what other people think of me.
2. Using feedback, I am more aware of what people think of me.
3. Feedback helps me manage the impression I make on others.
4. Feedback lets me know how I am perceived by others.
5. I rely on feedback to help me make a good impression.
6. The perceptions others have of me are not important. (R)

Feedback Self-Efficacy
1. I feel self-assured when dealing with feedback.
2. Compared to others, I am more competent at handling feedback.
3. I believe that I have the ability to deal with feedback effectively.
4. I feel confident when responding to both positive and negative feedback.
5. I know that I can handle the feedback that I receive.
6. I often feel insecure when receiving feedback. (R)
December 8, 2004

Beth Grecz
218 North Portage Path, Apt. 720
Akron, Ohio 44323

Ms. Grecz:

The University of Akron's Institutional Review Board for the Protection of Human Subjects (IRB) completed a review of the protocol entitled "Feedback Orientation". The IRB application number assigned to this project is 00047.002.

The protocol qualified for Expedited Review and was approved on December 6, 2004. The protocol represents minimal risk to subjects and matches the following federal category for expedited review:

(7) Research on individual or group characteristics or behavior or research employing survey, interview, and Notary. (face group, program evaluation, human factors evaluation or quality assurance methodologies)

This approval is valid until December 6, 2005 or until modifications are proposed to the project protocol, whichever may occur first. In either instance, an Application for Continuing Review must be completed and submitted to the IRB.

Enclosed is the informed consent document, which the IRB has approved for your use in this research. A copy of this form is to be submitted with any application for continuation of this project.

Please ensure that within one month of the expiration date of this approval, the IRB will forward an annual review reminder notice to you by email, as a courtesy. Nevertheless, it is your responsibility as principal investigator to remember the renewal date of your protocol's review. Please submit your continuation application at least two weeks prior to the renewal date, to secure the IRB has sufficient time to complete the review.

Please retain this letter for your files. If the research is being conducted for a master's thesis or doctoral dissertation, you must file a copy of this letter with the thesis or dissertation.

Sincerely,

Sharon McWorter, Associate Director

Cc: Linda Subich, Department Chair
    Paul Levy, Akron
    Phil Allen, IRB Chair

The University of Akron's Institutional Review Board
APPENDIX I

FOCAL STUDY 1 IRB

June 8, 2005

Bett Grefe
208 North Portage Path, Apt. 201
Akron, Ohio 44307

To: Grefe:

The University of Akron’s Institutional Review Board for the Protection of Human Subjects (IRB) completed a review of the protocol entitled “Feedback Orientation Focal Study I”. The IRB application number assigned to this project is 0392005.

The protocol qualified for expedited review and was approved on June 3, 2005. This protocol represents minimal risk to subjects and matches the following federal category for expedited review:

(7) Research on individual or group characteristics or behavior or research employing survey,observational, civil military, focus group, program evaluation, human patient evaluation or quality assurance methodologies.

This approval is valid until June 3, 2006 or until modifications are proposed to the project protocol, whichever may occur first. In either instance, an Application for Continuing Review must be completed and submitted to the IRB.

Enclosed are the informed consent documents which the IRB has approved for your use in this research. Copies of these forms are to be submitted with any application for continuation of this project.

In addition, your request for a waiver of documentation of informed consent, as permitted under 45 CFR 46.117(c), is also approved.

Please note that within one month of the expiration date of this approval, the IRB will forward an annual review reminder to you by email, as a courtesy. Nevertheless, it is your responsibility as principal investigator to remember the renewal date of your protocol’s review. Please submit your continuation application at least two weeks prior to the renewal date, to ensure the IRB has sufficient time to complete the review.

Please retain this letter for your files. If the research is being conducted for a master’s thesis or doctoral dissertation, you must file a copy of this letter with the thesis or dissertation.

Sincerely,

[Signature]
Associate Director

Cc: Linda Satch, Department Chair
Paul Long, Associate
PM Allen, IRB Chair

The University of Akron is an Equal Education and Employment Institution
APPENDIX J

FOCAL STUDY 2 IRB

Office of Research Services and Sponsored Programs
Akron, OH 44309
330.972.2800 Office
330.972.0377 Fax

December 13, 2005

Beth Greene
200 North Piano Rathe, Apt. 201
Akron, Ohio 44303

Ms. Greene:

The University of Akron’s Institutional Review Board for the Protection of Human Subjects (IRB) completed a review of the protocol entitled “Feedback Orientation Applied Sample”. The IRB application number assigned to this project is 20951204.

The protocol was reviewed on December 12, 2005 and qualified for exemption from continuing IRB review. The protocol represents minimal risk to subjects and matches the following federal category for exemption:

(1) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, observation procedures, or educational, or evaluation of public behavior; unless: (i) information is recorded in such a manner that subjects can be identified, directly or through identifiers linked to subjects; and (ii) any disclosure of responses outside the research could reasonably be expected to damage subjects’ financial standing, employability, or reputation.

Enclosed is a copy of the informed consent document, which the IRB has approved for your use in this research. In addition, your request for a waiver of documentation of informed consent, as permitted under 45 CFR 46.117(c), is also approved.

Annual continuation applications are not required for exempted projects. If you make any changes or modifications to the study’s design or procedures that either increase the risk to subjects or include activities that do not fall within one of the categories exempted from the regulations, please contact the IRB prior to their implementation. Any such changes or modifications must be reviewed and approved by the IRB prior to their implementation.

Please retain this letter for your files. If the research is being conducted for a master’s thesis or doctoral dissertation, the student must file a copy of this letter with the thesis or dissertation.

Sincerely,

Sharon McPherson
Associate Director

Cc: Department Chair
PhD Allen, IRB Chair

The University of Akron is an Equal Education and Employment Institution.