Two Essays on Managers' Feedback Behavior in the Workplace

by

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Author's Declaration

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

Abstract

Previous feedback research has largely focused on the perspective of the feedback recipient, often taking the act of giving feedback for granted. However, providing feedback can be a complicated and demanding task for managers, and there is likely considerable variance in the frequency and types of feedback behaviors in which managers engage. To this end, in this dissertation I present two essays to address this issue. In Essay 1, I develop the Manager Feedback Behavior Scale (MFBS), which is comprised of seven factors: fostering credibility, providing high-quality feedback, delivering feedback with tact, providing positive feedback, providing negative feedback, ensuring availability, and promoting feedback-seeking. Across four studies, I provide evidence for the validity of the MFBS. In Essay 2, I integrate self-regulatory theories of work motivation with the literature on mental health stereotypes. Across two studies, I present evidence that managers adjust the effort they allocate toward feedback behaviors based on perceptions of their subordinates' mental health. Briefly, the results indicate that these adjustments are driven by beliefs regarding the likelihood that providing feedback will "pay off" in terms of improved performance. As a set, these essays make several contributions to the feedback literature. Specifically, this research elucidates feedback processes from the manager's point of view, provides a framework for future investigation of managerial feedback behavior, and emphasizes that providing feedback should be considered with more nuance than simply whether feedback *was* or *was not* provided.

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CHAPTER 1: INTRODUCTION

This is not the first draft of this dissertation; the first draft was much worse. The change in quality between this draft and the first one is largely attributable to feedback that I received. Indeed, access to high-quality, frequent feedback has been linked to a host of benefits, including improved performance (Katz et al., 2021). For this reason, organizations often expect managers to provide frequent feedback and coaching to their subordinates (Cappelli & Tavis, 2016; Chawla et al., 2016; London & Smither, 2002). However, providing feedback is not like flipping a switch. Instead, managers must devote considerable time, energy, and attention to the various behaviors that comprise the process of providing feedback. Yet, to date, these efforts have been largely overlooked in the feedback literature (c.f., Minnikin et al., 2022; Zhang et al., 2022).

Rather, the feedback literature has focused on identifying factors that make feedback successful with regard to improving performance (e.g., timeliness, specificity). However, the extent to which managers follow recommendations from this literature is presently unclear. Importantly, managers may not always have adequate resources to devote to providing feedback. Instead, managers make *choices* regarding how much effort they allocate to providing feedback, thereby balancing the provision of feedback with their other job duties. Thus, depending on their level of motivation and available resources, manager feedback behavior is likely to vary from very little (e.g., giving vague, infrequent feedback) to a great deal (e.g., providing detailed, frequent, high-quality feedback). Yet, currently the processes that drive these effort allocation decisions are not well understood. Thus, in this dissertation, I investigate feedback processes from a managerial point of view.

To this end, I present two essays to address these issues. In Essay 1, I develop and validate a multi-dimensional scale to measure managers' feedback behavior: the Manager Feedback Behavior Scale (MFBS). Across four studies, I provide evidence that the MFBS demonstrates a consistent factor structure across samples, is related as expected to relevant constructs in its nomological network, and captures within-manager variance in feedback behavior across subordinates. That is, I provide evidence for the validity and reliability of this scale. In Essay 2, I identify a factor that influences managers' feedback behavior resource allocation decisions: perceived subordinate mental health. Across two studies, I show that managers adjust their feedback behavior based on perceptions of their subordinates' mental health. Specifically, I demonstrate that managers use perceptions about their subordinates' mental health to form beliefs about the likelihood that the subordinate's performance can be improved. In turn, these beliefs predict feedback behaviors toward the subordinate. Together, these essays elucidate managers' perspectives on feedback processes at work. By creating a scale to measure managers' perceptions of their own feedback behaviors and identifying factors that affect their feedback behavior, I help advance theory surrounding the often-overlooked source of feedback, and provide insights that can guide practitioners.

CHAPTER 2: DEVELOPMENT AND VALIDATION OF THE MANAGER FEEDBACK BEHAVIOR SCALE (ESSAY 1)

Feedback is evaluative information about a person's past behavior, and it is one of the most common methods managers use to improve their subordinates' performance (Balcazar et al., 1985). Feedback helps employees know whether they are meeting organizational standards, identify tasks to which they need to allocate additional effort, and learn strategies to help them improve their performance (Sleiman et al., 2020). To this end, many factors influencing feedback effectiveness (e.g., frequency of feedback, sign of feedback, target of feedback) have been identified in the research literature (e.g., Brett & Atwater, 2001; Kluger & DeNisi, 1996; Kuvaas et al., 2017; Lam et al., 2011; Mertens et al., 2021). However, it is presently unclear the extent to which managers follow these guidelines. In other words, although the feedback literature has provided numerous insights regarding what managers should do when providing feedback, far less is known about what managers actually do with regard to feedback in the workplace.

To this end, in this article we introduce the Manager Feedback Behavior Scale (MFBS), a multi-dimensional instrument for assessing the degree to which managers engage in numerous tasks comprising delivery of feedback to subordinates. We developed this scale based on the logic that feedback delivery is not unidimensional, but is instead characterized by a collection of behaviors. Likewise, providing feedback is not a dichotomy, such that feedback either is or is not delivered. Instead, feedback behaviors are better conceptualized as continua, meaning the time and energy that managers devote to these behaviors can vary from very little, to a great deal. As such, providing high-quality feedback to subordinates

may not always be prioritized, and at times managers may "phone in" the feedback they deliver (Minnikin et al., 2022). Yet, to date the feedback literature has been relatively silent regarding the time and effort managers put into delivering feedback to subordinates. By providing a validated measure of managerial feedback behaviors, the current research provides an important first step toward addressing this gap.

Managerial Feedback Behaviors: Guidance from the Literature

Although the specific content and delivery of feedback messages varies widely based on context, the feedback literature provides some general guidance for delivering effective feedback. To begin, the content of a feedback message should be directed toward specific behavior that the feedback recipient has exhibited, rather than on personal characteristics (Kluger & DeNisi, 1996). Behavioral feedback focuses attention on the task at hand, providing the potential for improved performance in the future. Conversely, person-centric feedback can be distracting, ultimately hindering performance (Vancouver & Tischner, 2004).

Additionally, feedback outcomes are also affected by its specificity and timeliness (Park et al., 2019; Davis et al., 2005). Specificity refers to the amount and level of information contained in a feedback message. Likewise, timeliness refers to the delay between the time when the behavior occurred and when feedback is delivered (Goodman et al., 2004). Specific and timely feedback serves as a signal of task importance. As such, when faced with multiple competing demands, individuals tend to prioritize tasks for which specific, timely feedback is available (Northcraft et al., 2011). More so, individuals are most

likely to seek feedback from sources from whom feedback is specific and timely, relative to other potential sources of feedback (Whitaker & Levy, 2012). Thus, by offering specific, timely feedback to subordinates, managers can make subordinates more likely to engage in subsequent feedback processes, thereby providing additional opportunities for performance improvement.

Next, the feedback literature indicates that managers should provide a mix of both positive and negative feedback. Negative feedback is often necessary for achieving performance improvements, as it signals a gap between desired and actual performance (e.g., Carver & Scheier, 1982; Lord & Levy, 1994; Vancouver, 2008). However, too much negative feedback can result in feedback rejection or disengagement (Grundmann et al., 2021; Nease et al., 1999) and decreases in performance (Wu et al., 2023). Conversely, positive feedback builds self-efficacy (Dimotakis et al., 2017; Van Dijk & Kluger, 2010), and as such, signals to an individual that they are able to reduce discrepancies between desired and actual performance. Thus, it is important for managers to balance the valences of their feedback. Whereas negative feedback is necessary for identifying discrepancies between subordinates' exhibited and desired performance, positive feedback can help to maintain subordinates' motivation and self-efficacy.

Additionally, the sensitivity with which feedback is delivered has implications for its effectiveness. For instance, feedback recipients are more motivated to use negative feedback when it is delivered in a considerate manner than when it is delivered less sensitively (Steelman & Rutkowski, 2004). More so, feedback recipients' perceptions regarding the

feedback source's intentions (e.g., to help subordinates improve their performance, to humble their subordinates) affects feedback outcomes, such as subordinate reactions to feedback and intentions to improve (Fedor et al., 1989; Ilgen et al., 1981). Thus, managers should be considerate of feedback recipient's feelings to ensure that feedback is accepted and put into action.

Lastly, feedback should be provided with relative frequency. Historically, formal feedback sessions occurred during annual performance reviews. Yet, there has been a recent shift toward emphasizing continuous performance management systems (Levy & Williams, 2004; Sarkar, 2016). Indeed, individuals who receive feedback at shorter intervals tend to perform better than those who receive feedback that is spaced further apart (Alvero et al., 2001; Kang et al., 2003; Park et al., 2019). However, some evidence indicates that too much feedback can overwhelm recipients in certain cases (e.g., when a recipient has low positive affect; Lam et al., 2011), thus turning the relationship between feedback frequency and performance negative. Nonetheless, due to the many demands on managers' time, we suspect that it is more common for managers to provide too little, rather than too much, feedback (e.g., Riegel, 2019).

Together, these findings indicate that feedback is most effective when part of an iterative process in which managers provide specific, timely, task-based feedback to subordinates. Collectively, these factors comprise a workgroup's feedback environment (Ashford & Northcraft, 2003; London & Smither, 2002; Steelman et al., 2004). Strong feedback environments are linked to numerous outcomes, such as improved subordinate

performance, decreased burnout, and increased feedback-seeking (Katz et al., 2021). Importantly, we argue that managerial feedback behaviors are key drivers of the feedback environment. Yet, due to the lack of validated scales for measuring these behaviors, the antecedents and outcomes of these environments remain relatively unexplored (cf. Borden et al., 2018; Dahling et al., 2017; Steelman & Wolfeld, 2018). To this end, we develop and validate a measure of managerial feedback behavior.

Measuring Manager Feedback Behavior

Based on the research reviewed above, we wrote items to measure the following factors: (1) delivering high quality feedback, (2) fostering credibility, (3) delivering feedback with tact, (4) delivering positive feedback, (5) delivering negative feedback, (6) ensuring availability, and (7) promoting feedback-seeking. These factors are similar to the factors in Steelman et al.'s Feedback Environment Scale (FES). Indeed, the FES was a starting point for the MFBS, as both scales draw on the same literature demonstrating effective feedback practices. Yet, whereas the FES is used to measure the nature of supervisor-subordinate feedback interactions from the subordinate's perspective, the MFBS is a self-report measure of managerial feedback behaviors.

At first glance, it may seem reasonable to measure managerial feedback behaviors by simply adapting the FES, such that the perspective is switched from the subordinate to the manager. Indeed, in at least one case this approach has been used. Simon et al. (2022) adapted items from the FES unfavorable (i.e., negative) feedback subscale to the manager's perspective. Although this adaptation was sufficient for their purposes, we argue that there

are several reasons that a new scale of managerial feedback behaviors needs to be developed and validated.

Most importantly, although some FES items are behaviorally oriented, others are not. That is, when responding to some FES items, subordinates report the degree to which their managers engage in certain behaviors, such as providing both positive and negative feedback. For example, the FES item "I frequently receive positive feedback from my supervisor" could conceivably be able to be adapted to the manager's perspective. However, this approach is not possible for numerous FES items, as these items reflect outcomes (e.g., subordinate perceptions of feedback quality), rather than the specific behaviors which produce these outcomes. For example, the FES item "I feel comfortable asking my supervisor for feedback about my work performance" assesses subordinate comfort with seeking feedback, rather than the managerial actions that foster this comfort. Thus, measuring managerial behaviors requires new items.

Additionally, switching the perspective from subordinates to managers assumes feedback behaviors have the same factor structure for both feedback recipients and feedback sources. We believe this assumption is premature. Indeed, there is evidence that feedback sources and recipients often have different perceptions of the same feedback episode (e.g., Abi-Esber et al., 2022; Schaerer et al., 2018). Thus, managers may view feedback interactions differently than subordinates. For example, in the FES, feedback delivery (i.e., the sensitivity with which feedback is delivered) is a separate factor from favorable feedback (i.e., the amount of positive feedback a subordinate receives). However, managers may think

of the provision of positive feedback as a strategy for providing feedback sensitively. Thus, the factor structure must be assessed from a managerial perspective. Each proposed factor is described in detail below.

Fostering Credibility

This factor refers to the behaviors that managers use to establish trust in the feedback they deliver to subordinates. To be a credible feedback source, managers must be familiar with their subordinates' performance. In other words, to provide honest critique or praise of a behavior, the manager must have observed that behavior. Therefore, to capture source credibility from the managers' perspective, we focus on the behaviors managers exhibit which affect the level of knowledge they have regarding subordinate performance. We note that it requires energy and time for managers to review and observe subordinate performance, and therefore, there is likely variance in the amounts of credibility behaviors managers enact. Items capture behaviors such as observing subordinates' performance on the job, and reviewing subordinates' past work (e.g., "I make sure to observe their performance on the job").

Providing High-Quality Feedback

As previously discussed, high-quality feedback is both timely and specific (Northcraft et al., 2011; Whitaker & Levy, 2012). Feedback with these attributes tends to result in larger performance improvements than feedback that is delayed and/or general. Likewise, high-quality feedback is focused on the specific behaviors that the recipient has exhibited, rather than traits of personal characteristics (Kluger & DeNisi, 1996). However, as previously

discussed, it is possible that managers may be unaware of, or unable to follow, these prescriptions from the feedback literature. Additionally, providing detailed, specific feedback is likely more resource-intensive than providing general feedback. Thus, we expect variance in the quality of the feedback that managers provide. In sum, the items we include in the MFBS focus on the immediacy, specificity, and focus of the feedback a manager gives (e.g., "I provide them with detailed feedback about their performance").

Providing Negative Feedback

Providing negative feedback refers to the act of giving performance information about subordinates' work that does not meet set standards. In other words, negative feedback highlights areas to which subordinates need to make performance improvements. Although negative feedback is frequently required for subordinates to make performance improvements, managers often find providing negative feedback to be uncomfortable and unpleasant (Simon et al., 2022). Therefore, managers may not always be motivated to give maximal amounts of negative feedback. Additionally, negative feedback may not always be needed, as it is possible for a manager to have a team who completes all work tasks to a satisfactory standard. Thus, we expect variance in the overall amounts of negative feedback managers provide, and include providing negative feedback in the MFBS to capture this variance.

Providing Positive Feedback

Providing positive feedback is the extent to which managers give their subordinates performance information about work that has met or exceeded expectations. Although

perhaps less interpersonally taxing than negative feedback, providing positive feedback to subordinates nevertheless requires time and effort. That is, managers must spend time and energy identifying subordinate behaviors that they wish to praise, and communicate this praise in a clear manner. Additionally, managers may not view positive feedback as strictly necessary, as the subordinate is already exhibiting desired performance. Thus, we expect that there will be variance in the amount of positive feedback managers provide their subordinates. Therefore, it is important to capture the variance in amount of positive feedback that managers provide their subordinates.

Delivering Feedback with Tact

This factor reflects specific actions managers take to avoid eliciting negative emotions in the feedback recipient and to ensure they do not appear unkind. It is important for managers to convey feedback sensitively in order to prevent feedback recipients from rejecting feedback, and in order to preserve the relationship between the recipient and source (Steelman & Rutkowski, 2004). However, it takes both skill and effort to deliver feedback tactfully, as many subtle cues and interpersonal factors must be considered (e.g., specific characteristics of the subordinate, tone, and content of the feedback message). Therefore, managers may not always prioritize tact when delivering feedback. In sum, we include items that capture the behaviors managers exhibit in order to be sensitive when providing feedback (e.g., "I try to 'soften the blow' when I need to give them feedback", "I am considerate of their feelings when giving performance feedback").

Ensuring Availability

This factor describes the degree to which managers make the effort to be available to provide feedback to subordinates. For example, a manager can ensure availability to provide feedback by holding regular meetings with their subordinates. However, managers may not always be motivated to be available to their subordinates. For example, managers may have a high workload, or feel uncomfortable providing feedback. Thus, we expect variance in the effort managers allocate to ensuring that they are available sources of feedback. We include items that capture managers' behaviors that lead to them being an accessible source of feedback (e.g., "I make time to provide them with the feedback they need").

Promoting Feedback-Seeking

Promoting feedback-seeking captures the extent to which managers encourage subordinates to seek feedback about their performance. Often, promotion of feedback-seeking will involve direct verbal cues indicating that the manager is willing to provide feedback. Likewise, managers may emphasize the importance of seeking feedback to their subordinates. Given the time and energy it takes to provide feedback, managers may not always promote feedback-seeking to their subordinates so as to avoid having to respond to feedback requests. In the MFBS, we include items to capture cues that promote feedback-seeking (e.g., "I tell them that I am always happy to give them feedback").

Proposed Nomological Network of the MFBS

As outlined above, we expect managerial feedback behavior to be multifaceted. Along these lines, some research questions may pertain to specific facets. Nonetheless, we

expect that the aggregated MFBS (across all factors) will also represent a meaningful construct. Therefore, as a starting point, we present predictions for the nomological network of the MFBS as a whole, rather than at the factor level. We focus on managerial traits in the nomological network of the MFBS, as traits are common antecedents of behavior (e.g., Barrick & Mount, 1991; Kalshoven et al., 2010; Paunonen & Ashton, 2001). In other words, we expect that the feedback behaviors managers enact will be meaningfully correlated with the personal traits they possess.

Feedback Orientation

Feedback orientation refers to the extent to which managers perceive feedback to be useful, tend to act on feedback themselves, and have self-efficacy with regard to responding appropriately to feedback (London & Smither, 2002; Linderbaum & Levy, 2010). Managers with a strong feedback orientation may expect that recipients of feedback will also value and act upon the feedback they receive, and thus, be more inclined to give feedback to others than managers with weaker feedback orientations. Thus, we predict a positive relationship between feedback orientation and manager feedback behavior (H1).

Emotional Intelligence

Emotional intelligence refers to the ability to recognize and regulate emotions in oneself and others (Salovey & Mayer, 1990). Providing feedback is an interpersonal interaction that can be uncomfortable for the feedback source, especially when negative feedback is involved (Simon et al., 2022). We expect that managers with high levels of emotional intelligence are better equipped to navigate social aspects of providing feedback,

and will therefore engage in more feedback behaviors than mangers with lower levels of emotional intelligence. Thus, we predict a positive relationship between emotional intelligence and manager feedback behavior (H2).

Workplace Arrogance

Workplace arrogance is a belief that oneself is superior to others (Johnson et al., 2010). Managers with an inflated sense of self-importance may be less likely to engage in feedback behavior, as they may perceive that doing so is not worth their time. Additionally, providing feedback may be construed as a helping behavior, and highly arrogant people tend to engage in fewer helping behaviors than less arrogant people (Johnson et al., 2010). Indeed, subordinates with highly arrogant managers tend to perceive a lower-quality feedback environment compared to subordinates with less arrogant managers (Borden et al., 2018). Therefore, we predict a negative relationship between workplace arrogance and manager feedback behavior (H3).

Implicit Person Theory

We also expect implicit person theory (IPT; Dweck, 2000) to be related to manager feedback behavior. Implicit person theory refers to the extent to which an individual believes that people are generally capable of change (i.e., incremental), or that personality and abilities are generally stable (i.e., entity) (Dweck, 2000). We expect that the more a manager holds an incremental implicit person theory, the more likely they may believe that feedback will result in performance improvements for the recipient. Indeed, supervisors with an incremental IPT tend to engage in more performance management behaviors, including

providing feedback, than managers with an entity IPT (Drawbaugh et al., 2019). Thus, we expect a positive relationship between incremental implicit person theory and manager feedback behavior (H4).

Learning Goal Orientation

People with a strong learning goal orientation value gaining new skills and experiences (VandeWalle, 1997), and tend to respond to feedback by increasing the effort they allocate to a task, in turn improving their performance (VandeWalle et al., 2001). Therefore, people with strong learning goal orientations may expect that the feedback they give to others will also be used to make performance improvements. Additionally, there is evidence for a relationship between feedback sources' learning goal orientation and feedback behavior, as feedback recipients perceive that feedback sources' learning goal orientation is related to the quality and credibility of the feedback the source gives (Son & Kim, 2016). Therefore, we predict a positive relationship between learning goal orientation and manager feedback behavior (H5).

Managerial Self-Efficacy

Managerial self-efficacy refers to a person's belief that they can successfully carry out managerial duties (Fast et al., 2014). In general, people with high self-efficacy in regard to a task tend to allocate more effort to, and perform better on the task than people with lower self-efficacy (Judge et al., 2007; Stajkovic & Luthans, 1998). Given that feedback is a managerial duty, managers who feel that they are generally capable in their role may be more likely to engage in feedback behaviors, as they may feel capable doing so effectively. Thus,

we predict a positive relationship between managerial self-efficacy and manager feedback behavior (H6).

Feedback Effort

Effort refers to the direction, intensity, and persistence of behavior (Van Iddekinge et al., 2023). Importantly, providing feedback requires effort (Minnikin et al., 2022). Thus, we predict a positive relationship between self-reported effort allocated to providing feedback in general and managerial feedback behaviors (H7).

"Big Five" Personality Traits

Lastly, we consider relationships between managerial feedback behavior and the "Big Five" personality traits (Donnellan et al., 2006; Goldberg, 1990) on an exploratory basis. That is, we do not present hypotheses for the relationships between the MFBS and the big five. Yet, we include these traits as they are commonly used in the psychological literature, and uncovering the relationships between them and the MFBS may assist researchers with future theorizing.

Between- and Within-manager Variance in Managerial Feedback Behavior

To this point, we have considered manager feedback behavior at the between-person level of analysis, hypothesizing that managerial personality traits will predict feedback behaviors in general. However, managers may engage in differing levels of feedback behavior depending on the specific subordinate to whom they are providing feedback. For instance, when responding to requests for feedback from subordinates, managers adjust the effort they allocate toward providing feedback based on their perceptions of the subordinate's

feedback-seeking motives (Minnikin et al., 2022). As such, we expect the MFBS to vary at both between- and within-manager levels of analysis. This pattern of variance is illustrated in Figure 1. Specifically, we expect that some managers may engage in more feedback behaviors on average relative to other managers (e.g., Manager B > Manager A in Figure 1), yet managers will also adjust their feedback behavior depending on the specific subordinate to whom they are providing feedback.

Study 1

We began by writing 42 items intended to capture manager feedback behaviors representing each of the proposed facets. Next, we recruited managers to respond to these items in order to assess the factor structure of our scale and reduce the number of items.

Method

We collected data from a sample of 350 managers from Amazon's Mechanical Turk[1] (MTurk). Participants received $1.00 USD for completing the survey. We screened possible participants using a four-item pre-screen survey. Only people who indicated that they had at least one subordinate were invited to participate. Then, we asked participants to respond to the 42 items about their feedback behaviors at work and report basic demographic information. Nine participants were excluded from analyses due to possibly taking our pre-screen multiple times, and 20 participants were excluded due to failed attention checks. Additionally, 64 participants were excluded because they failed to report the same number of subordinates at the end of the survey as they had reported in the pre-screen, calling into

[1] Across all studies, participants recruited through MTurk needed a HIT approval rating ≥ 95% and had to have completed at least 100 HITs to be eligible to participate.

question the legitimacy of their managerial status. Thus, our final sample contained 257 managers. On average, participants worked 42.29 hours per week (*SD* = 6.27), had 9.47 subordinates (*SD* = 14.83), and had 9.83 years of managerial experience (*SD* = 8.05). Additionally, the sample was 56% male, 82% Caucasian, and had a mean age of 41.95 years (*SD* = 10.85).

Results and Discussion

We tested the factor structure of our measure by conducting an exploratory factor analysis (EFA) with an oblimin rotation. The scree plot revealed a seven-factor solution. Initially, the seventh factor was comprised of a mix of items intended to capture four separate factors, most of which had high cross-loadings with other factors. Therefore, we removed the items in the seventh factor, and tried specifying a model with six factors. The six-factor model contained a factor wherein there was only one item. Therefore, we removed that item, and reverted back to a seven-factor solution as the scree plot suggested. Lastly, we trimmed items that had low loadings onto their intended factor (< .50), or had high cross-loadings onto other factors (> .40). After trimming these items, there were four items per factor (28 total). All remaining items loaded onto their intended factors and had low cross loadings (see Table 1). Means, standard deviations, reliabilities and correlations are presented in Table 2. These results indicate that the factor structure of the MFBS mirrors that of the FES, meaning managers perceive similar dimensions of feedback as subordinates do with regard to receiving it. The final item list is presented in Appendix A.

Study 2

Next, we sought to confirm the factor structure found in Study 1. Thus, we recruited two new samples of managers to respond to the revised 28-item measure.

Method

Sample A

We recruited sample of 400 managers from MTurk who had not participated in the previous study. They received $1.00 USD for participating in the study. We repeated the pre-screen procedure from Study 1. Then, participants responded to the 28 remaining items about their feedback behaviors at work, and provided us with basic demographic information. Eleven participants were excluded from analysis for possibly taking the pre-screen multiple times, and 20 participants were excluded for failing an attention check. An additional 71 participants were excluded for reporting a different number of subordinates in the pre-screen and end of the survey. Therefore, the final sample size was $N = 298$ (59% male, 80% Caucasian, mean age= 41.18 years [$SD = 11.09$]). On average, participants worked 41.55 hours per week ($SD = 6.50$), had 9.27 subordinates ($SD = 14.29$), and had 9.53 years of managerial experience ($SD = 8.01$).

Sample B

We recruited sample of 832 managers from a cooperative work program at a large Canadian university. They were entered in a draw to win one of ten $50 CDN gift cards for participating in the study. As in Sample A, participants responded to the 28 items about their feedback behaviors at work, and provided us with basic demographic information. We

excluded 222 participants for failing an attention check, 74 for responding "no" to the question "Should we use your data?", and 22 for responding multiple times to the survey, leaving a final sample of $N = 516$. The final sample was 51% male, 60% Caucasian and, on average 37.46 years ($SD = 9.85$) years old. Participants worked an average of 42.99 hours per week ($SD = 7.10$), had 7.41 subordinates ($SD = 11.67$), and had 7.52 years of managerial experience ($SD = 7.93$).

Results

Sample A

We conducted a confirmatory factor analysis (CFA) in Mplus Version 8 (Muthén & Muthén, 1998-2017). The seven-factor model provided a good fit to the data ($RMSEA = .069$, $CFI = .914$, $SRMR = .056$), and provided a significantly better fit to the data than several other possible models (see Table 3). Additionally, we tested a higher-order model in order to determine whether it is appropriate to aggregate the seven factors into one factor. That is, in addition to modeling each item onto its intended factor, we also allowed the seven latent factors of the MFBS to load onto an overall MFBS latent factor. The higher-order model also provided a good fit to the data ($RMSEA = .072$, $CFI = .901$, $SRMR = .069$), indicating that the seven factors can be aggregated to reflect an overall manager feedback behavior construct. Means, standard deviations, and correlations are presented in Table 4.

Sample B

The seven-factor model provided a good fit to the data ($RMSEA = .049$, $CFI = .946$, $SRMR = .055$), and provided a significantly better fit to the data than several other possible

models (see Table 5). Additionally, the higher-order model also provided a good fit to the data (*RMSEA* = .052, *CFI* = .937, *SRMR* = .065), providing evidence that the seven factors can be aggregated to reflect an overall manager feedback behavior construct. Means, standard deviations, and correlations are presented in Table 6.

Discussion

Across two samples, we found that the MFBS demonstrates a factor structure consistent with the hypothesized seven-factor structure. Additionally, we found that the factors of the MFBS load onto a higher-order construct of manager feedback behavior. These results provide a foundation for the validity of the MFBS both at the factor level and overall level.

Study 3

In Study 3 we examine the nomological network of the MFBS, testing H1-H7.

Method

Sample and Procedure

A sample of managers ($N = 400$) who had not participated in any previous study for this research were recruited from MTurk. They participated in two surveys separated in time to avoid common method variance (Podsakoff et al., 2003). Participants completed the same pre-screen procedure as in Studies 1 and 2 (Sample A) on a Monday, and were then immediately invited to complete the first survey. In the first survey, participants responded to the MFBS and provided demographic information. Then, participants were invited back to complete the second survey on Friday of the same week. In the second survey, participants

filled out measures of their feedback orientation, emotional intelligence, implicit person theory, workplace arrogance, learning goal orientation, managerial self-efficacy, feedback effort, and Big 5 personality.

Participants were given $1.00 USD for completing Survey 1, and $2.50 USD for completing Survey 2. Of the 400 managers who completed Survey 1, 14 were duplicate responses, 16 failed an attention check, and 73 reported a different number of subordinates in the pre-screen and demographic sections. Therefore, 297 managers were invited to participate in the second survey. Of the 297 who were invited, 200 managers completed Survey 2 (retention rate = 67%). Participants who completed both surveys did not differ from those who only completed Survey 1 in managerial experience, $t(295) = -1.95$, $SE = .84$, $p = .052$, or number of subordinates, $t(295) = 1.56$, $SE = 2.23$, $p = .119$. However, participants who returned for Survey 2 were significantly older than those who did not return for the second survey, $t(295) = -3.16$, $SE = 1.33$, $p = .001$, and women were more likely to return to the study than men, $\chi^2(3) = 7.95$, $p = .047$.

Seven participants failed an attention check in Survey 2, leaving a final sample size of 193. The majority of the final sample was female (57%) and Caucasian (83%). On average, participants worked 42.23 hours per week ($SD = 6.08$), had 9.29 years of managerial experience ($SD = 7.00$), 10.06 subordinates ($SD = 15.97$), and were 41.14 years old ($SD = 11.36$).

Measures

Feedback Orientation. Feedback orientation was measured using Linderbaum & Levy's (2010) 20-item scale. This scale contains four factors: utility (perceived usefulness of feedback), accountability (felt obligation to use feedback), social awareness (tendency to use feedback for interpersonal purposes), and feedback self-efficacy (confidence in ability to receive and respond to feedback). However, we use the overall feedback orientation score in the nomological network of the MFBS as the four factors reflect an overall construct in which we are interested. Participants responded using a scale from 1 (Strongly Disagree) to 5 (Strongly Agree). Sample item: "Feedback is critical for improving performance."

Emotional Intelligence. Wong & Law's (2002) 16-item measure was used to capture participants' emotional intelligence. This measure captures four factors of emotional intelligence: self-emotion appraisal (ability to understand one's own emotions), others' emotion appraisal (ability to understand and identify others' emotions), use of emotion (ability to use emotion to direct behavior), and regulation of emotion (ability to control one's own emotions). An aggregate score of all factors was used to compute the relationship between emotional intelligence and the MFBS. Participants responded using a scale of 1 (Strongly Disagree) to 5 (Strongly Agree). Sample item: "I am sensitive to the feelings and emotions of others."

Implicit Person Theory. Implicit person theory was assessed using an eight-item measure (Dweck, 2000). Participants rated their agreement with each item on a scale of 1 (Strongly Disagree) to 7 (Strongly Agree). This scale was coded such that higher scores

reflect an *incremental* implicit person theory, and lower scores reflect an *entity* implicit person theory. Sample item: "People can always substantially change the kind of person they are."

Workplace Arrogance. Workplace arrogance was measured with Johnson et al.'s (2010) 26-item scale. The response scale ranged from 1 (Strongly Disagree) to 5 (Strongly Agree). Sample item: "I believe I know better than my coworkers in any given situation."

Learning Goal Orientation. Participants' learning goal orientation was assessed using the Work Domain Goal Orientation Instrument (VandeWalle, 1997), which contained five items assessing learning goal orientation.[2] Participants rated their agreement with each item using a scale from 1 (Strongly Disagree) to 5 (Strongly Agree). Sample item: "I enjoy challenging and difficult tasks at work where I'll learn new skills."

Managerial Self-Efficacy. Managerial self-efficacy was measured using a version of the New General Self-Efficacy Scale (Chen et al., 2001) that has been adapted to the managerial context (Fast et al., 2014; Ju et al., 2019). Participants rated their agreement with the eight items from this scale on a scale from 1 (Strongly Disagree) to 5 (Strongly Agree). Sample item: "I am confident that I can perform effectively on many different managerial tasks."

[2] We also collected the prove (performance goal) orientation and avoid (performance goal) orientation sub scales of the Work Domain Goal Orientation Instrument for exploratory purposes, but do not consider these goal orientations further as they were not considered in the nomological network of the MFBS. Moreover, neither prove orientation (r = -.02, p = .819) nor avoid orientation (r = -.07, p = .315) were significantly related to the MFBS.

Big Five Personality. The "Big Five" personality traits (extraversion, agreeableness, conscientiousness, neuroticism, and intellect/imagination) were measured using the Mini-IPIP (Donnellan et al., 2006). Participants responded to this 20-item measure using a scale of 1 (Strongly Disagree) to 5 (Strongly Agree). Sample items: "I am the life of the party" (extraversion), "I sympathize with others' feelings" (agreeableness), "I get chores done right away" (conscientiousness), "I have frequent mood swings" (neuroticism), and "I have a vivid imagination" (intellect/imagination).

Feedback Effort. Lastly, to measure managers' general tendency to allocate effort to providing feedback to their subordinates, we used a measure originally developed by Schmidt & DeShon (2010), and adapted to the feedback context by Minnikin et al. (2022). Participants responded to this 4-item measure using a scale of 1 (Strongly Disagree) to 5 (Strongly Agree). Sample item: "I try very hard to give my subordinates good quality feedback."

Results

CFA

We began by conducting a CFA on the MFBS to confirm the results of Study 2. As expected, the seven-factor model provided a good fit to the data (*RMSEA* = .058, *CFI* = .945, *SRMR* = .055), and provided a significantly better fit to the data than several alternative models (see Table 7). Again, the higher-order model also provided a good fit to the data (*RMSEA* = .063, *CFI* = .933, *SRMR* = .074), providing confirmation that the seven factors in the measure reflect the more general construct of manager feedback behavior.

Nomological Network

A correlation matrix with means, standard deviations, and reliabilities can be found in Table 8. As expected, the MFBS was significantly positively related to feedback orientation (*H1*), emotional intelligence (*H2*), implicit person theory (*H4*), learning goal orientation (*H5*), managerial self-efficacy (*H6*), and feedback effort (*H7*), and negatively related to workplace arrogance (*H3*), providing support for all hypotheses. Additionally, we observed a significant correlation between manager feedback behavior and four of the big five personality traits (i.e., agreeableness, conscientiousness, neuroticism, and intellect/ imagination). However, there was no relationship between the MFBS and extraversion. We also present correlations between the facets of the MFBS and other measured variables in Table 9 for completeness and to facilitate future theorizing. However, we do not discuss these further as we did not make specific predictions about the relationships between the facets of the MFBS and the other measured variables, and, due to the number of correlations, it is impractical to discuss them individually.

Discussion

In this study, we again confirmed the factor structure of the MFBS, and found that it is correlated as expected with a number of variables in its theoretical nomological network. Overall, these results provide evidence for the validity of the MFBS, and illuminates managerial characteristics that may impact the amount of feedback behavior in which a manager engages.

Study 4

In Study 4, we modified the MFBS items to reference specific subordinates (rather than a manager's general feedback behavior). In doing so, we assessed the proportion of variance in the MFBS that is attributable to the manager, versus variance attributable to specific subordinates. Lastly, we tested measurement invariance of the MFBS across subordinates.

Method

Participants

We recruited a sample of managers from Prolific. In order to be eligible to participate, individuals had to have at least three subordinates, work full-time outside of Prolific, reside in the United States, and have a 95%+ Prolific approval rating. Data were collected across three time points of the same workweek to combat common method variance (Podsakoff et al., 2003). Of the 687 participants who completed the first survey, 536 completed the second survey, and 457 completed the third survey (retention rate = 67%). Participants who did not complete all three surveys were excluded from analysis. We also excluded participants who responded multiple times to the survey ($N = 5$), failed an attention check ($N = 4$), or had missing data ($N = 3$), leaving a final sample of $N = 445$ for analysis. The final sample had a mean age of 40.86 ($SD = 10.69$) years, was 62% white, and 53% male. They had an average of 9.31 ($SD = 7.34$) years of managerial experience, and 13.55 ($SD = 14.90$) subordinates.

Procedure

On Monday, participants provided initials for three of their subordinates. Then, they responded to the MFBS in reference to their first subordinate and provided demographic information. On Wednesday, participants responded to the MFBS in regard to their second subordinate. Finally, on Friday, participants responded to the MFBS in regard to their third subordinate. Additionally, at the end of each survey, participants were asked to give their best estimate of the demographic information (age, gender, ethnicity) for the subordinate about whom they had just filled out the MFBS. Participants received 1.10 GBP for the first survey, 0.75 GBP for the second survey, and 1.25 GBP for the third survey.

Results

Between- Versus Within-Manager Variance

We calculated intra-class correlations (ICC) in order to determine the proportion of between-manager variance in the MFBS. We found that 71% of variance in the overall MFBS was attributable to between-manager differences, and 29% of the variance occurred within-managers. ICCs for the individual MFBS factors ranged from .48 to .62 and are presented in Table 10. The large proportion of between-manager variance lends support to our focus on managerial individual differences when presenting the nomological network for the MFBS; these individual differences predict managers' general feedback tendencies. Nonetheless, additional research is warranted to identify subordinate characteristics, as well as manager × subordinate interactions, as predictors of managerial feedback behavior.

Predicting MFBS Variance

Along these lines, we conducted exploratory multi-level regression analyses examining the relationships between subordinate demographics and manager feedback (see Table 11). This is important ensure that within-manager variance in MFBS scores reflects true score variance, rather than measurement error (e.g., Fleeson, 2001). To this end, we regressed MFBS scores on subordinate gender, age, and ethnicity.[3] Although there were no significant effects of age (γ = .00, *SE* = .00, *p* = .477), or ethnicity (γ = -.02, *SE* = .03, *p* = .458) on MFBS scores, we found that managers tended to engage in more feedback behaviors for their female subordinates than their male subordinates (γ = .07, *SE* = .02, *p* = .004). We also ran this regression with each of the seven MFBS factors as the dependent variable (see Table 11). As with the overall MFBS, age did not predict any MFBS subfactor. Yet, there were significant relationships between subordinate gender and providing positive feedback, delivering feedback with tact, and ensuring availability. This indicates that managers may be doing more to "soften the blow" of feedback for their female subordinates, relative to their male subordinates. Due to this gentler approach, managers may find providing feedback to female subordinates less interpersonally uncomfortable relative to male subordinates, and thus feel more comfortable ensuring they are available for future feedback episodes. This finding is in line with research suggesting that women are given more upwardly biased,

[3] We excluded cases wherein the manager indicated that the subordinate's gender was non-binary or "other" (*n* = 13), reported multiple ethnicities (*n* = 36), or did not report any ethnicity (*n* = 8). Gender was coded as 0 = man, 1 = woman. Ethnicity was coded as 0 = white, 1 = non-white.

kinder feedback than men (Jampol & Zayas, 2021). These results provide evidence that the within-person variance in the MFBS is not simply due to measurement error.

Measurement Invariance

Additionally, we assessed the measurement invariance of the MFBS (Vandenberg & Lance, 2000). This procedure is necessary to ensure that the MFBS factor structure is maintained across subordinates. First, using CFA, we specified a baseline model in which MFBS items loaded onto the same factors across subordinates (i.e., configural invariance). We allowed like items to correlate across subordinates, allowed latent factors to covary, and restricted the means of each latent factor to zero. The configural invariance model fit the data well indicating that the factor structure held across the three subordinates on whom managers reported (see Table 12).

Next, we tested metric invariance by constraining factor loadings to be equal across subordinates. All other restrictions from the configural invariance model were retained. This model also provided a good fit to the data (see Table 12). To assess whether this model provided a significantly worse fit to the data than the first model, we computed the change in CFI between models; changes in CFI less than or equal to .002 are considered significantly equivalent (Meade et al., 2008). The metric invariance model did not fit worse than the configural invariance model, $\Delta CFI = .001$, meaning factor loadings across subordinates were equal.

It is most important to establish configural and metric invariance; doing so demonstrates that the items in the measure in question are being interpreted the same way

when used multiple times (Vandenberg & Lance, 2000). However, we also present results for tests of scalar invariance, equal latent factor variance, and equal factor means (see Table 12). To test scalar invariance, we constrained like item intercepts to be equal across subordinates. The scalar invariance model provided a good fit to the data, but had a significantly worse fit than the metric invariance model, $\Delta CFI = .003$. This result is not unexpected, as managers were reporting on a different subordinate each time they responded to the MFBS. Thus, this result reflects that managers engaged in different levels of feedback behaviors across subordinates.

Next, we restricted the variance of each latent factor to be the same across subordinates. This model provided an acceptable fit to the data, and did not provide a significantly worse fit than the scalar invariance model, $\Delta CFI = .001$. Lastly, we tested an equal factor means model. Therefore, we specified a model in which the latent means of each factor for the first subordinate were set to 0 to allow comparisons between latent means across subordinates. Again, this model provided an acceptable fit to the data, and did not provide a significantly worse fit than the equal factor variances model, $\Delta CFI = .002$. Overall, these results provide evidence that the items in the MFBS are interpreted the same way by managers when used to report on different subordinates.

Discussion

Although certain managers tend to engage in more feedback behavior than other managers, we also found evidence that managers adjust the level of feedback behaviors in which they engage depending on the specific subordinate to whom they are providing

feedback. The within-person variance in MFBS scores was predicted using subordinate gender, providing evidence that this variance was not simply due to error. Moreover, tests of measurement invariance indicated that the MFBS is appropriate for use at the within-manager level, as managers tended to interpret the items in the MFBS the same way across subordinates. Thus, the MFBS is able to capture both within- and between-person variance in feedback behavior.

General Discussion

Theoretical Implications

Several theories have provided insights into when, why, and how feedback results in various outcomes. For example, feedback intervention theory (Kluger & DeNisi, 1996) outlines how some feedback interventions can actually decrease performance, as feedback directed toward personal characteristics can change a recipients' locus of attention from the task to the self. Likewise, the cost/benefit model of feedback seeking (Ashford & Cummings, 1983) proposes that individuals seek feedback when the benefits of doing so (e.g., improving their performance) outweigh the costs (e.g., appearing incompetent). Additionally, theories in spaces adjacent to the feedback literature have also shed light on the mechanisms behind feedback's efficacy. For example, control theory (Carver & Scheier, 1982) outlines feedback's critical role in accurately assessing one's own performance, and in turn, one's behavior in pursuit of a goal.

In the current research we emphasize that the feedback source likely contributes a substantial proportion of the variance in feedback outcomes, as they are the party responsible

for the amount of feedback given, the timeliness of the feedback, and the quality and content of the feedback message. Although some theories have considered feedback sources, it has generally been through the lens of the feedback recipient (e.g., the recipient's perception of the source's credibility), or simply considering which source has created the feedback (e.g., a manager, a co-worker, the environment). Yet, in order to accurately model and understand the mechanisms behind how, why, and when feedback results in desired outcomes, it is crucial to consider the source of the feedback. We suspect that the dearth of research and theory surrounding feedback sources is due, at least in part, to a lack of a validated measure of managers' feedback behavior. To this end, we present the Manager Feedback Behavior Scale to address this issue.

Practical Implications

The MFBS can be used as a diagnostic tool in organizations. For example, the MFBS can be used as a criterion to evaluate managerial training programs. To do so, an organization would administer the MFBS to managers prior to beginning the training program to obtain a baseline of manager feedback behavior, and then administer the MFBS again at several points post-training program. In this way, organizations can assess the efficacy of training and determine for how long any effects of the training last. This information can be used to help organizations decide the frequency and types of training programs in which they wish to invest. Further, executive coaches may administer the MFBS to facilitate managers' reflection on their own feedback behavior. That is, the MFBS may be useful in helping managers to think purposefully about all the different behaviors that go into providing

feedback, and can help executive coaches identify areas for improvement. Similarly, the MFBS can be used as part of a 360-degree feedback system. Specifically, discrepancies between subordinate- and manager-perceptions of the manager's feedback behavior may be important areas for intervention.

Future Directions

The MFBS can facilitate research that will increase understanding of managers' goals, motivations, and thought processes surrounding the provision of feedback. To date, the feedback literature has focused on motivations that drive feedback recipient behavior (Morrison, 2002). However, we note that feedback providers must have motivations that drive their behavior as well. Importantly, the MFBS provides an opportunity to capture feedback behavior from the source's point of view, thus allowing for investigations of internal motivation processes related to providing feedback. For example, there may be situational factors that affect managers' motivation with regard to feedback, such as workload. That is, perhaps managers decrease the amount of feedback behavior in which they engage if they have too many other demands on their time, as feedback may been seen as more of a secondary task (Minnikin et al., 2022). Likewise, managers may not engage in as many feedback behaviors for certain subordinates as they do for others. For example, managers may view providing low-performing subordinates with feedback as a waste of time, even though these subordinates may be the most "in need" of high-quality feedback. Overall, the MFBS can facilitate research that will improve understanding of the factors

influencing feedback behavior, and allow researchers to identify methods for improving the quality and amount of feedback that managers provide.

Moreover, the multifaceted nature of the MFBS allows for an even more nuanced investigation of these types of research questions. That is, variation in feedback behavior is likely more complicated than just more/fewer feedback behaviors depending on the situation. Rather, certain managers may engage in certain types of feedback behavior, and managers may make facet-level adjustments to their feedback behavior between situations or subordinates. For example, if, as we proposed, managers decrease their feedback behavior when they experience high workload, it may not be an "across the board" decrease. Rather, managers may strategically decrease certain aspects of their feedback behavior, such as the tact with which it is delivered, or the amount of positive feedback they provide. Indeed, there is evidence to suggest that fairness behaviors decrease as workload increases (Sherf et al., 2019), so it is likely that behaviors related to the tact with which feedback is delivered will decrease under high workload conditions as well. Yet, overall amounts of negative feedback may be unaffected by workload, as managers may perceive negative feedback to be a method for increasing their subordinates' performance and therefore decreasing the manager's own workload.

Additionally, there may be specific subordinate characteristics that affect managers' motivations and engagement in specific feedback behaviors. For example, research has shown that in general, managers dislike providing negative feedback (Simon et al., 2022). We suspect that this avoidance of negative feedback may be more pronounced for certain

subordinates than others. That is, managers may be more hesitant to provide subordinates who are perceived to be sensitive or "weak" with negative feedback than subordinates who are perceived to be resilient. Yet, the levels of positive feedback may be unaffected by perceived subordinate sensitivity, as positive feedback is not likely to elicit negative feelings in the recipient.

Strengths and Limitations

The present research has several strengths. The multi-study approach to validation provides evidence for the reliability and validity of our scale. First, we note that the item creation for the MFBS was grounded in the feedback literature, which establishes the construct validity of the MFBS. Second, we demonstrated a consistent factor structure using samples obtained from three different sources (MTurk, Prolific, and a cooperative work program), all of which included managers working in many different organizational settings. Third, we demonstrated that our measure is related to several constructs in the same nomological network, providing evidence for the convergent validity of the MFBS. Although the constructs in the nomological network and the MFBS were measured from the same source (i.e., the manager), measurements were separated in time to mitigate any artificial inflation in correlations between the MFBS and other variables due to common method variance (Podsakoff et al., 2003). Lastly, we provided evidence that the MFBS is able to detect within-person fluctuations in manager feedback behavior, and that the items in the MFBS are interpreted by managers similarly across subordinates. Thus, the MFBS is a

reliable tool that can capture feedback behavior in general, toward all of a manager's subordinates, and more specifically, toward individual subordinates.

An important limitation of the current research is that we have not presented any data demonstrating relationships between the MFBS and external criteria. For instance, the MFBS may be expected to predict subordinate perceptions of the feedback environment. Yet, we argue that this relationship is an interesting avenue for future research rather than a necessary condition for the validity of the MFBS. For instance, feedback sources and recipients often view the same feedback episode very differently (Abi-Esber et al., 2022; Schaerer et al., 2018), meaning the MFBS may not predict subordinate perceptions of the feedback environment. Moreover, there may be certain conditions under which the MFBS would predict subordinate perceptions of the feedback environment, and others under which the two would be unrelated. For example, the length of time that a manager and subordinate have worked together is likely to moderate this relationship. Nonetheless, future research should examine the relationship between the behaviors measured by the MFBS and subordinate perceptions of the feedback environment, and more importantly, the boundary conditions around this relationship.

A second limitation of the current research is that all data were collected online. As such, there may be concerns regarding participant attentiveness, as well as whether participants actually held managerial positions. With regard to participant attention, for the samples recruited from MTurk and Prolific, we limited study access to users with very high approval ratings ($\geq 95\%$). Likewise, in all studies we embedded attention check items in the

surveys and removed participants who failed these checks (e.g., Aguinis et al., 2021). With regard to ensuring that participants actually were managers, we confirmed the number of subordinates managers had at multiple times and removed participants for whom there were any discrepancies. Also, we screened out bots using captchas and other customized bot checks. Finally, in Study 2b managers were recruited from a large university co-operative work program. Importantly, the results of this study matched the results of the data collected from other sources.

Conclusion

In sum, we note a dearth of research from the manager or feedback source's point of view in the feedback literature. That is, although there are many prescriptions for how managers *should* provide feedback, it is relatively unclear how managers tend to allocate efforts to providing feedback, or what their feedback behavior entails in naturalistic settings. We propose that managers' behavior is motivated, strategic, and influenced by many factors. Thus, we facilitate future research on these topics by developing and validating a multifactor scale capturing specific feedback behaviors that managers enact in the workplace.

Table 1

Exploratory Factor Analysis Results (Essay 1, Study 1)

Item	Pos	Neg	Tact	Pro	Avail	Qual	Cred
I let them know when they do a good job at work.	**.92**	.05	.04	-.01	-.02	.02	-.02
I praise their performance when they do a good job at work.	**.87**	.02	.02	.00	.06	-.10	.06
I provide them with positive feedback.	**.81**	-.05	.02	.06	.02	.05	.05
When they perform well, I make sure to acknowledge it.	**.78**	.05	.08	.03	-.04	.11	.01
I let them know when their job performance falls below what is expected.	.10	**.85**	-.03	-.08	.01	.09	-.01
I let them know if I think they are falling behind.	.05	**.83**	.02	.09	.00	-.17	.04
I tell them when their work does not meet organizational standards.	.03	**.80**	-.11	-.08	.14	.10	-.01
I tell them when they make mistakes at work.	-.14	**.72**	.09	.18	-.08	.06	.13
I try to "soften the blow" when I need to give them feedback.	.02	-.05	**.87**	-.03	-.07	.07	.02
I try to avoid upsetting them while giving them feedback.	.05	-.02	**.85**	-.04	.03	-.10	.07
I make sure to phrase my feedback so that they do not take it personally.	-.02	-.01	**.82**	.10	.03	-.01	.03
I am considerate of their feelings when giving performance feedback.	.13	.11	**.59**	.01	.21	.09	-.18
I encourage them to ask for feedback whenever they are uncertain about their job performance.	-.02	.06	-.01	**.82**	.14	-.03	.04
I emphasize the importance of seeking feedback to them.	.03	.06	.12	**.78**	-.11	.22	-.05
I tell them that if they are unsure about their performance, they should ask for feedback.	.04	.06	.01	**.76**	.11	.01	-.01
I tell them that I am always happy to give them feedback.	.31	-.08	-.09	**.60**	.16	-.01	.13
I try to be available when they want performance information.	-.07	.02	.12	.12	**.82**	-.03	.01
I am an accessible source of feedback for them.	.15	.09	.03	.00	**.74**	.07	-.03
I try to be an approachable source of feedback for them.	.01	-.05	.02	.06	**.69**	.07	.21
I make time to provide them with the feedback they need.	.20	.10	-.06	.07	**.58**	.21	-.06
The feedback that I give them contains practical suggestions for improvement.	.00	.00	-.03	.00	.09	**.79**	.11
I provide them with feedback that they can put into action.	.09	.00	.06	.06	.13	**.68**	.07
I provide them with detailed feedback about their performance.	.12	.21	.00	.14	-.04	**.57**	.06
I put a lot of effort into providing feedback that is constructive.	.10	.03	.16	.19	.10	**.54**	.00
I make sure to observe their performance on the job.	.09	.11	-.04	.16	.02	-.08	**.75**
I strive to evaluate their job performance in a manner that is fair.	.12	-.03	.10	-.14	.19	.19	**.63**
I review their work prior to providing them with feedback.	.00	.18	.20	-.15	.11	.17	**.59**
I ensure that I have all relevant information before giving them feedback.	.11	.09	.03	.10	-.06	.29	**.55**

Note. $N = 257$. Pos = Providing Positive Feedback, Neg = Providing Negative Feedback, Tact = Delivering Feedback with Tact, Pro = Promoting Feedback-Seeking, Avail= Ensuring Availability, Qual = Providing High-Quality Feedback, Cred = Fostering Credibility.

Table 2

Study 1 Means, Standard Deviations, Correlations, Reliabilities (Essay 1)

	M	*SD*	*1*	*2*	*3*	*4*	*5*	*6*	*7*
1. Fostering Credibility	6.28	0.72	*.86*						
2. Providing High-Quality Feedback	6.20	0.73	.72 ***	*.87*					
3. Delivering Feedback with Tact	5.76	1.04	.43 ***	.45 ***	*.85*				
4. Providing Positive Feedback	6.35	0.79	.61 ***	.67 ***	.53 ***	*.93*			
5. Providing Negative Feedback	5.76	0.86	.57 ***	.54 ***	.17 **	.42 ***	*.87*		
6. Ensuring Availibility	6.20	0.78	.61 ***	.69 ***	.48 ***	.68 ***	.44 ***	*.89*	
7. Promoting Feedback-Seeking	5.84	1.00	.48 ***	.61 ***	.34 ***	.59 ***	.50 ***	.63 ***	*.89*

Note. $N = 257$. Alpha coefficients are italicized and presented on the diagonal. $^{**}p < .01$, $^{***}p < .001$.

Table 3

Sample A Confirmatory Factor Analysis Results (Essay 1, Study 2)

	X^2	*df*	ΔX^2	Δdf	*p*	*RMSEA*	*CFI*	*SRMR*
One factor	2454.213	350	1657.91	21	<.001	.142	.611	.104
Four Factor (Cred + Qual vs. Avail + Pro vs. Pos + Neg vs. Tact)	1725.231	344	928.92	15	<.001	.116	.745	.094
Four Factor (Cred + Qual vs. Avail + Pro vs. Tact + Pos vs. Neg)	1499.80	344	703.49	15	<.001	.106	.786	.079
Five Factor (Cred+ Qual together, Avail + Pro together vs. rest separate)	1156.924	340	360.62	11	<.001	.090	.849	.067
Six Factor (Tact + Pos together vs. rest separate)	1152.605	335	356.30	6	<.001	.090	.849	.070
Six Factor (Pos + Neg together vs. rest separate)	1374.05	335	577.74	6	<.001	.102	.808	.086
Six Factor (Avail + Pro together vs. rest separate)	1108.494	335	312.19	6	<.001	.088	.857	.066
Six Factor (Cred+ Qual together vs. rest separate)	844.851	335	48.54	6	<.001	.071	.906	.058
Seven Factor	796.31	329				.069	.914	.056

Note. $N = 298$. Changes in degrees of freedom and chi-squared are in reference to the seven-factor model. Cred = Fostering Credibility, Qual = Providing High-Quality Feedback, Tact = Delivering Feedback with Tact, Pos = Providing Positive Feedback, Neg = Providing Negative Feedback, Avail= Ensuring Availability, Pro = Promoting Feedback-Seeking.

Table 4

Sample A Means, Standard Deviations, Correlations, Reliabilities (Essay 1, Study 2)

	M	*SD*	*1*	*2*	*3*	*4*	*5*	*6*	*7*
1. Fostering Credibility	6.30	.62	*.81*						
2. Providing High-Quality Feedback	6.19	.69	.71 ***	*.83*					
3. Delivering Feedback with Tact	5.67	.98	.29 ***	.25 ***	*.84*				
4. Providing Positive Feedback	6.40	.69	.56 ***	.63 ***	.42 ***	*.89*			
5. Providing Negative Feedback	5.79	.85	.46 ***	.49 ***	.02	.34 ***	*.87*		
6. Ensuring Availibility	6.14	.72	.59 ***	.66 ***	.39 ***	.59 ***	.49 ***	*.88*	
7. Promoting Feedback-Seeking	5.87	.99	.49 ***	.63 ***	.28 ***	.56 ***	.43 ***	.62 ***	*.91*

Note. $N = 298$. Alpha coefficients are italicized and presented on the diagonal. ***$p < .001$.

Table 5

Sample B Confirmatory Factor Analysis Results (Essay 1, Study 2)

	X^2	*df*	ΔX^2	Δdf	*p*	*RMSEA*	*CFI*	*SRMR*
One factor	4079.239	350	3345.35	21	<.001	.144	.499	.111
Four Factor (Cred + Qual vs. Avail + Pro vs. Pos + Neg vs. Tact)	2668.086	344	1934.20	15	<.001	.114	.688	.133
Four Factor (Cred + Qual vs. Avail + Pro vs. Tact + Pos vs. Neg)	2159.42	344	1425.53	15	<.001	.101	.756	.110
Five Factor (Cred+ Qual together, Avail + Pro together vs. rest separate)	1687.802	340	953.91	11	<.001	.088	.819	.103
Six Factor (Tact + Pos together vs. rest separate)	1214.146	335	480.26	6	<.001	.071	.882	.068
Six Factor (Pos + Neg together vs. rest separate)	1726.43	335	992.54	6	<.001	.090	.813	.099
Six Factor (Avail + Pro together vs. rest separate)	1574.711	335	840.82	6	<.001	.085	.833	.101
Six Factor (Cred+ Qual together vs. rest separate)	846.282	335	112.39	6	<.001	.054	.931	.058
Seven Factor	733.89	329				.049	.946	.055

Note. $N = 516$. Changes in degrees of freedom and chi-squared are in reference to the seven-factor model. Cred = Fostering Credibility, Qual = Providing High-Quality Feedback, Tact = Delivering Feedback with Tact, Pos = Providing Positive Feedback, Neg = Providing Negative Feedback, Avail= Ensuring Availability, Pro = Promoting Feedback-Seeking.

Table 6

Sample B Means, Standard Deviations, Correlations, Reliabilities (Essay 1, Study 2)

	M	*SD*	*1*	*2*	*3*	*4*	*5*	*6*	*7*
1. Fostering Credibility	6.41	.53	*.70*						
2. Providing High-Quality Feedback	6.20	.67	.57 ***	*.84*					
3. Delivering Feedback with Tact	5.92	.86	.26 ***	.22 ***	*.78*				
4. Providing Positive Feedback	6.54	.56	.39 ***	.46 ***	.31 ***	*.91*			
5. Providing Negative Feedback	5.75	.84	.42 ***	.41 ***	.05	.30 ***	*.85*		
6. Ensuring Availibility	6.38	.60	.45 ***	.53 ***	.19 ***	.47 ***	.35 ***	*.84*	
7. Promoting Feedback-Seeking	5.87	1.10	.32 ***	.42 ***	.13 **	.31 ***	.44 ***	.35 ***	*.89*

Note. $N = 516$. Alpha coefficients are italicized and presented on the diagonal. ** $p < .01$, ***$p < .001$.

Table 7

Study 3 Confirmatory Factor Analysis Results (Essay 1)

	X^2	*df*	ΔX^2	Δdf	*p*	*RMSEA*	*CFI*	*SRMR*
One factor	2840.08	350	2182.69	21	<.001	.155	.580	.117
Four Factor (Cred + Qual vs. Avail + Pro vs. Pos + Neg vs. Tact)	1936.10	344	1278.71	15	<.001	.125	.731	.107
Four Factor (Cred + Qual vs. Avail + Pro vs. Tact + Pos vs. Neg)	1726.42	344	1069.03	15	<.001	.116	.767	.092
Five Factor (Cred+ Qual together, Avail + Pro together vs. rest separate)	1250.07	340	592.69	11	<.001	.095	.846	.069
Six Factor (Tact + Pos together vs. rest separate)	1136.12	335	478.74	6	<.001	.090	.865	.082
Six Factor (Pos + Neg together vs. rest separate)	1352.80	335	695.41	6	<.001	.101	.828	.099
Six Factor (Avail + Pro together vs. rest separate)	1145.48	335	488.10	6	<.001	.090	.863	.069
Six Factor (Cred+ Qual together vs. rest separate)	771.09	335	113.70	6	<.001	.066	.926	.056
Seven Factor	657.39	329				.058	.945	.055

Note. N = 297. Changes in degrees of freedom and chi-squared are in reference to the seven-factor model. Cred = Fostering Credibility, Qual = Providing High-Quality Feedback, Tact = Delivering Feedback with Tact, Pos = Providing Positive Feedback, Neg = Providing Negative Feedback, Avail= Ensuring Availability, Pro = Promoting Feedback-Seeking.

Table 8

Study 3 Means, Standard Deviations, Correlations, and Reliabilities (Essay 1)

	N	*M*	*SD*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*
1. Manager Feedback Behavior	297	6.07	.56	*.94*												
2. Feedback Orientation	193	3.93	.45	.41 ***	*.89*											
3. Emotional Intelligence	193	5.58	.68	.33 ***	.36 ***	*.87*										
4. Implicit Person Theory	193	4.49	1.47	.21 **	.19 **	.24 ***	*.96*									
5. Workplace Arrogance	193	2.03	.40	-.46 ***	-.22 **	-.33 ***	-.30 ***	*.87*								
6. Learning Goal Orientation	193	4.11	.61	.38 ***	.39 ***	.30 ***	.16 *	-.29 ***	*.87*							
7. Managerial Self-Efficacy	193	4.13	.49	.42 ***	.44 ***	.44 ***	.17 *	-.32 ***	.48 ***	*.91*						
8. Exraversion	192	2.74	.94	.06	.12 †	.23 **	.12 †	.06	.14 *	.24 ***	*.87*					
9. Agreeableness	192	3.81	.79	.30 ***	.31 ***	.38 ***	-.37 ***	-.37 ***	.17 *	.09	.29 ***	*.83*				
10. Conscientiousness	192	3.86	.82	.18 *	.10	.39 ***	.08 *	-.32 ***	.06	.19 **	.02	.07	*.79*			
11. Neuroticism	192	2.38	.84	-.14 *	-.04	-.44 ***	-.17 *	.29 ***	-.20 **	-.25 ***	-.18 *	.10	-.25	*.82*		
12. Intellect/Imagination	192	3.92	.85	.18 *	.23 **	.23 **	.17 *	-.22 **	.35 ***	.29 ***	.15 *	.19 **	-.03	-.07	*.84*	
13. Feedback Effort	192	4.18	.60	.47 ***	.47 ***	.29 ***	-.40 ***	-.40 ***	.33 ***	.40 ***	.12 †	.29 ***	.12 †	-.09	.18 *	*.89*

Note. Alpha coefficients are italicized and presented on the diagonal. †$p < .10$, *$p < .05$, **$p < .01$, ***$p < .001$.

Table 9

Study 3 Correlations Between Manager Feedback Behavior Facets and Nomological Network Variables (Essay 1)

	M	*SD*	*FO*	*EQ*	*IPT*	*WA*	*LGO*	*MSE*	*E*	*A*	*C*	*N*	*I*	*Effort*	α
Credibility	6.31	.62	.27 ***	.27 ***	.14 *	-.41 ***	.28 ***	.34 ***	-.08	.18 *	.17 *	-.14 *	.11	.39 ***	.79
Quality	6.20	.70	.32 ***	.29 ***	.17 ***	-.39 ***	.28 ***	.41 ***	.15 *	.27 ***	.14 *	-.12 †	.27 ***	.34 ***	.89
Tact	5.69	1.03	.15 *	.12 †	.15 *	-.33 ***	.07	.01	-.10	.34 ***	-.03	-.09	-.07	.20 **	.84
Positive Feedback	6.44	.64	.28 ***	.24 ***	.21 **	-.46 ***	.40 ***	.36 ***	.04	.29 ***	.10	-.03	.26 ***	.40 ***	.91
Negative Feedback	5.69	.91	.20 **	.23 **	-.01	-.05	.19 **	.29 ***	.04	-.04	.20 **	-.09	.16 *	.16 *	.88
Availability	6.19	.70	.28 ***	.27 ***	.14 *	-.46 ***	.34 ***	.40 ***	.06	.22 **	.15 *	-.17 *	.16 *	.39 ***	.91
Promoting	5.93	1.00	.38 ***	.17 *	.17 *	-.17 *	.32 ***	.29 ***	.16 *	.14 *	.16 *	-.03	.06	.39 ***	.91

Note. $N = 192$. *FO* = Feedback Orientation, *EQ* = Emotional Intelligence, *IPT* = Implicit Person Theory, *WA* = Workplace Arrogance, *LGO* = Learning Goal Orientation, *MSE* = Managerial Self-Efficacy, *E* = Extraversion, *A* = Agreeableness, *C* = Conscientiousness, *N* = Neuroticism, *I* = Intellect/ Imagination, *Effort* = Feedback Effort, Credibility = Fostering Credibility, Quality = Providing High-Quality Feedback, Tact = Delivering Feedback with Tact, Positive Feedback = Providing Positive Feedback, Negative Feedback = Providing Negative Feedback, Availability= Ensuring Availability, Promoting = Promoting Feedback-Seeking. †$p < .10$, *$p < .05$, **$p < .01$, ***$p < .001$.

Table 10

Study 4 Correlation Matrix (Essay 1)

	M	*SD(B)*	*SD(W)*	*ICC*	*1*	*2*	*3*	*4*	*5*	*6*	*7*
1. Credibility	6.07	.57	.39	.52	-	.79 ***	.32 ***	.63 ***	.53 ***	.69 ***	.58 ***
2. Quality	6.07	.64	.45	.51	.42 ***	-	.37 ***	.68 ***	.56 ***	.76 ***	.70 ***
3. Tact	5.61	.96	.61	.57	.16 ***	.28 ***	-	.34 ***	.03	.40 ***	.30 ***
4. Positive Feedback	6.23	.60	.44	.48	.16 ***	.34 ***	.34 ***	-	.43 ***	.70 ***	.65 ***
5. Negative Feedback	5.60	.83	.48	.62	.19 ***	.18 ***	-.03	.00	-	.47 ***	.56 ***
6. Availability	6.17	.64	.41	.56	.23 ***	.34 ***	.29 ***	.25 ***	.08 **	-	.74 ***
7. Promoting	5.85	.88	.51	.62	.15 ***	.36 ***	.27 ***	.30 ***	.11 ***	.45	-

Note. Within-subject correlations are shown below the diagonal (1335 observations). Scores were centered at each participant's mean to compute within-subject correlations. Between-subject correlations are shown above the diagonal (445 individuals). Scores were averaged within each participant to compute between-subject correlations. *M* = mean, *SD(B)* = between-subjects standard deviation, *SD(W)* = within-subjects standard deviation, *ICC* = intra-class correlation, Credibility = Fostering Credibility, Quality = Providing High-Quality Feedback, Tact = Delivering Feedback with Tact, Positive Feedback = Providing Positive Feedback, Negative Feedback = Providing Negative Feedback, Availability= Ensuring Availability, Promoting = Promoting Feedback-Seeking. ** $p < .01$, *** $p < .001$.

Table 11

Study 4 Exploratory Multi-level Regression Analyses (Essay 1)

Predictor	γ	*SE*	*t*	*p*	R^2
DV: MFBS					.01
Gender	.07	.02	2.92	.004	
Age	.00	.00	-.71	.477	
Ethnicity	-.02	.03	-.74	.458	
DV: Fostering Credibility					.00
Gender	.02	.03	.48	.634	
Age	.00	.00	-1.47	.142	
Ethnicity	-.04	.04	-1.14	.256	
DV: Providing High-Qualilty Feedback					.00
Gender	.02	.04	.56	.575	
Age	.00	.00	.88	.381	
Ethnicity	.00	.04	-.01	.994	
DV: Delivering Feedback with Tact					.03
Gender	.27	.05	5.14	<.001	
Age	.00	.00	1.67	.096	
Ethnicity	.02	.06	.39	.696	
DV: Providing Positive Feedback					.01
Gender	.11	.04	3.07	.002	
Age	.00	.00	.48	.631	
Ethnicity	-.06	.04	-1.35	.177	
DV: Providing Negative Feedback					.00
Gender	-.03	.04	-.68	.494	
Age	.00	.00	-1.26	.209	
Ethnicity	-.03	.05	-.52	.607	
DV: Ensuring Availability					.01
Gender	.07	.04	2.00	.045	
Age	.00	.00	-.96	.340	
Ethnicity	-.03	.04	-.83	.406	
DV: Promotion of Feedback Seeking					.00
Gender	.08	.05	1.69	.091	
Age	.00	.00	-1.24	.215	
Ethnicity	-.01	.05	-.11	.913	

Note. $N_{managers}$ = 444, $n_{subordinates}$ = 1278. Ethnicity was coded as 0 = white, 1 = Non-white. Gender was coded as 0 = man, 1= woman.

Table 12

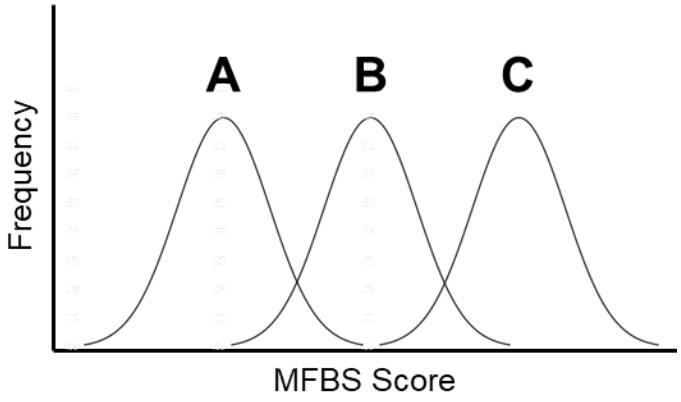
Measurement Invariance of the Manager Feedback Behavior Scale (Essay 1, Study 4)

Model	Model Name	X^2	*df*	*CFI*	*RMSEA*	*SRMR*	Comparison to Model	Δ*CFI*	ΔX^2	Δ*df*	*p*
1	Configural Invariance	5827.81	3108	.907	.044	.045	-				
2	Metric Invariance	5913.40	3150	.906	.044	.047	1	.001	85.59	42	<.001
3	Scalar Invariance	6046.87	3206	.903	.045	.049	2	.003	133.47	56	<.001
4	Equal Factor Variances	6101.29	3220	.902	.045	.076	3	.001	54.42	14	<.001
5	Equal Factor Means	6000.31	3192	.904	.044	.048	4	.002	100.98	28	<.001

Note. $N = 445$.

Figure 1

Illustration of Between- and Within-Manager Variance in the MFBS



Note. Each letter (A, B, C) represents a different hypothetical manager.

CHAPTER 3: THE RELATIONSHIP BETWEEN MANAGER FEEDBACK BEHAVIOR AND PERCEIVED SUBORDINATE MENTAL HEALTH (ESSAY 2)

Almost one in five American adults experience a mental health condition each year (Reinert et al., 2022), and workers miss approximately 12 billion working days annually worldwide due to mental health problems (World Health Organization, 2022). To this end, many organizations have implemented initiatives and policies to promote positive mental health (Griener et al., 2022; Toma et al., 2023). This can include explicit training aimed at bolstering managers' mental health literacy (e.g., Dimoff & Kelloway, 2019), as well as subtler interventions designed to increase awareness of mental health issues in the workplace (e.g., Lupo, 2023). As a result, many managers may be relatively "tuned in" to mental health issues, such that they pay close attention to cues signaling poor mental health in their subordinates. On the one hand, this awareness may have positive consequences, such as increasing support for employees with mental illnesses (Dimoff & Kelloway, 2019). However, there may also be unintended consequences of this increased awareness. Presently, we consider one such consequence: the effect that managerial perceptions of their subordinate's mental health have on the feedback they deliver.

Feedback—evaluative information about an individual's past performance—can be beneficial to both organizations and employees. It has been linked to improved job performance (Gabriel et al., 2014), greater worker well-being (Sparr & Sonnentag, 2008), and higher job satisfaction (Anseel & Lievens, 2007). Managers often use feedback to help employees to "get back on track" when their performance falls below acceptable levels, and to provide guidance as to what areas of their performance need additional effort or attention

(London & Smither, 2002). However, providing feedback – particularly negative feedback – can result in uncomfortable conversations with subordinates (Benedict & Levine, 1988; Simon et al., 2022; Speer et al., 2020). Moreover, providing feedback takes effort. Given the many other demands managers face on their time, effort, and attention, it is infeasible to simply maximize the quality and amount of the feedback they provide to any given subordinate at any given point in time. That is, managers must balance providing feedback with other work tasks.

To this end, in the current research we draw on self-regulatory theories of goal pursuit (e.g., Carver & Scheier, 1998; Lord & Levy, 1994; Vancouver, 2008) to explain how managers allocate their resources across these competing objectives, and why perceptions of subordinate mental health are likely to affect manager feedback behavior. Specifically, we point to two key factors in managers' effort allocation decisions: the perceived expectancy that providing feedback will result in the subordinate making performance improvements, and the perceived expectancy that the managers will be able to avoid conflict with the subordinate while providing feedback. Importantly, stereotypes associated with mental health issues bear directly on the perceived likelihood of these two outcomes. That is, people with mental health issues are often stereotyped as incompetent (i.e., unable to make performance improvements) and volatile (i.e., emotionally unpredictable) (Follmer & Jones, 2018). Thus, we integrate self-regulatory theories and mental health stereotype literature to predict that managers' perceptions of their subordinates' mental health will be related to feedback behavior in which managers engage.

We test our predictions in two studies wherein managers report their perceptions of subordinate mental health and their feedback behavior toward their subordinates. These studies make several contributions to the feedback and workplace mental health literatures. First, we note that past research has identified that people with mental health issues often exhibit worse task performance, lower organizational commitment, and increased turnover rates than people who are mentally healthy (Khalid & Syed, 2024). By demonstrating that subordinates who are perceived to have poor mental health receive less feedback than subordinates who are perceived to be mentally healthy, we point to a possible, relatively easy to address, mechanism for these observed relationships (i.e., lack of feedback). Additionally, we expand the current conception of mental illness stereotypes to include people who are perceived to have poor mental health, but do not necessarily have a diagnosed mental illness. That is, we demonstrate that manager treatment of subordinates is not only affected by awareness of a mental illness diagnosis; it is enough for a manager to simply perceive that a subordinate has poor mental health. Lastly, we highlight the feedback source's role in feedback outcomes. To date, the feedback literature has emphasized the goals and motivations of feedback recipients (Ashford et al., 2003; Ashford et al., 2016; Anseel et al., 2015), with the motives and goals of feedback sources receiving far less attention (cf. Lam et al., 2007; Minnikin et al., 2022; Zhang et al., 2022).

Stereotypes Affect Manager Perceptions of Subordinates with Poor Mental Health

Mental health exists on a continuum, stretching from poor mental health to good mental health (Keyes, 2002). Individuals closer to the good mental health side of the

spectrum are “generally satisfied, can work toward goals, and can contribute to their community” (Kelloway et al., 2023, p. 365), whereas individuals who are closer to the poor mental health side of the spectrum may experience symptoms of mental illness, burnout, and other difficulties. Although some individuals who have poor mental health may have a diagnosable mental illness, this is not always the case. That is, an individual may experience certain sub-threshold symptoms of mental illnesses, or simply experience a lack of mental well-being, without meeting the criteria for a mental illness. Thus, mental illness and poor mental health are correlated, but not identical states of mental health (Keyes, 2002). In the present research, we focus on manager perceptions of mental *health* (i.e., a subordinate’s level of mental well-being), not mental illness (i.e., whether a subordinate has a diagnosable condition).

We consider mental health, rather than mental illness, as everyone has some level of mental health, but only a fraction of individuals experience mental illness. That is, by focusing on managers’ perceived level of subordinate mental *health*, rather than mental *illness*, we demonstrate that the processes uncovered in this research are relevant to all working individuals, rather than the subset of this population with a diagnosed mental illness. Additionally, managers may not be aware of whether a subordinate has a diagnosed mental illness, yet, managers form perceptions of their subordinates’ mental health by observing the subordinates’ behaviors, moods, and attitudes. That is, mental health is more readily perceivable than mental illness. Nonetheless, although manager perceptions of mental health

is the focal construct, we use the literature regarding stereotypes about mental illness to inform our predictions.

In particular, people with mental illnesses, by definition, have poor mental health (Kelloway et al., 2023). That is, the concepts of poor mental health and mental illness are highly related, and may not be distinguished by laypeople. As such, we expect managers' beliefs about, and treatment of, subordinates whom they perceive to have poor mental health to be informed by stereotypes that are held regarding people with mental illness. Stereotypes are widely held generalizations about groups of people that affect beliefs, attitudes, and behavior toward members of the stereotyped group (Ames, 2004; Macrae et al., 1994; Motro et al., 2022). People with mental illnesses are often stereotyped as both volatile and incompetent (Boysen et al., 2023; Corrigan et al., 2005). That is, mental illnesses are associated with an inability to control emotions, cooperate with others, and achieve desired outcomes (Corrigan et al., 2003; Hand & Tryssenaar, 2006). These stereotypes often have serious negative work-related consequences for individuals with mental health issues, such as decreased perceived hireability, lower wages, and increased experiences of incivility than people without mental health issues (Follmer & Jones, 2018).

Importantly, managers are not exempt from holding stereotypical beliefs about people with mental illnesses (Hamann et al., 2016). As such, managers may treat subordinates whom they perceive to have poor mental health differently than those whom they perceive to be mentally healthy. Indeed, given the increasing societal and organizational focus on mental health (Kelloway et al., 2023), managers are likely better equipped than ever to recognize

signs of struggle in their subordinates (Dimoff & Kelloway 2019). Although managerial recognition of mental health issues is important for ensuring that subordinates receive appropriate support, it may also have unintended consequences. That is, increased awareness of mental health may cause managers to be "on alert" for signs that their subordinates are struggling, and therefore more likely to base their treatment of their subordinates on stereotypical beliefs about individuals with mental illnesses.

Given the critical role that managers play in the work outcomes of people with mental health issues (Dimoff & Kelloway, 2019), it is important to consider how mental health perceptions affect managers' treatment of their subordinates. In this research, we focus on one particularly important managerial behavior: providing feedback about a subordinate's work performance. To this end, in the following section we integrate the mental illness stereotype literature with self-regulatory theories of motivation to elucidate how and why managers adjust their feedback behavior based on perceptions of subordinate mental health. Specifically, we emphasize that the stereotypes associated with mental illnesses (incompetence, volatility), are directly related to two salient goals that affect managers' feedback behavior (performance improvement, conflict avoidance).

Feedback as a Goal-Pursuit Behavior

Improving Subordinate Performance

As part of their job roles, managers are responsible for maintaining and improving subordinate performance (Bateman et al., 2002; Purcell & Hutchinson, 2007). That is, managers have the *goal* to improve their subordinates' performance. Goals are cognitive

constructs representing both desired, and undesired, outcomes and end-states (Austin & Vancouver, 1996). According to self-regulatory theories of motivation, the discrepancy between a person's goal and their current state drives their efforts and behavior (Lord et al., 2010; Neal et al., 2017). If a person feels like they have not yet met a goal, they will do one of two things: revise the goal downward, or try harder to achieve the goal. Importantly, providing feedback to subordinates can be conceptualized as a self-regulatory process. That is, feedback is a behavior in which managers engage to pursue the goal of improving subordinate performance. Specifically, managers deliver feedback as a means of reducing the gap between their desired level of subordinate performance and their subordinates' current observed level of performance (Pulakos et al., 2019). In providing feedback, managers are able to draw subordinates' attention to tasks on which they have not met expectations, or on which there is room for improvement.

However, the provision of feedback requires managers to invest a considerable amount of time, effort, and attention (Minnikin et al., 2022). In order to provide high-quality feedback, managers must first gather information by monitoring and observing their subordinate's performance, compare their subordinate's observed level of performance with the organization's standards, and prioritize areas in which the subordinate's performance is furthest from the desired level. Then, they must craft their feedback message, ensuring it is specific, clear, and constructive, and deliver it in a timely manner. Moreover, as feedback is an iterative process, managers must engage in these behaviors frequently. Yet, managers face

many demands on their time and energy, and cannot simply maximize the amount and quality of the feedback they provide to their subordinates.

That is, in addition to managing their subordinates, managers are responsible for budgeting, staffing concerns, and their own work tasks (Bateman et al., 2002). Thus, managers must allocate their resources *strategically* across multiple goals (i.e., subordinate performance improvement, other work goals). Importantly, self-regulatory theories provide insight into how individuals make resource allocation decisions across multiple, competing demands. Specifically, self-regulatory theories point to *expectancy* as a key determinant of the amount of effort an individual will expend on a given goal (Steel & König, 2006; Vancouver et al., 2010). Expectancy refers to the perceived likelihood that engaging in goal-pursuit behavior will lead to the achievement of the goal, and has long been conceptualized as a fundamental factor in predicting motivation (e.g., Van Eerde & Thierry, 1996; Vroom, 1964).

Generally, expectancy positively predicts goal choice. That is, people tend to pursue goals that they think they will be able to achieve (Beck et al., 2019; Schmidt et al., 2009; Sun et al., 2014). For example, when pursuing multiple goals with the same deadline, individuals often abandon goals that they do not think they will be able to meet in favor of goals that they feel are achievable (Schmidt et al., 2009; Schmidt & Dolis, 2009). Moreover, individuals often will not allocate any resources to pursuing a goal when the expectancy of a goal is below a certain threshold (Sun et al., 2014; Vancouver et al., 2008), as it is perceived to be a "lost cause." Overall, these results illustrate that people tend not to pursue goals that

they do not think they will be able to achieve, and tend to allocate more resources to goals that they feel they are capable of achieving.[4]

Importantly, we argue that a manager's expectancy regarding a subordinate's likelihood of making performance improvements is informed by their perception of the subordinate's mental health. That is, we expect managers' perception of their subordinate's mental health to be positively related to their expectancy that the subordinate will make performance improvements. We make this prediction based on the stereotype that people with mental illnesses are incompetent. Thus, managers may expect that the worse a subordinate's mental health is, the less likely they will be able to use any feedback they receive to make performance improvements. In turn, given expectancy is generally positively related to goal choice, we expect that managers will allocate more resources to providing feedback the higher the perceived expectancy of the subordinate making performance improvements. In other words, managers may believe that subordinates with better mental health will be more likely to develop than subordinates with poorer mental health, and therefore managers may be more willing to expend effort providing these purportedly mentally healthy subordinates with feedback. In sum, we predict that perceived subordinate mental health will predict manager feedback behavior through perceived expectancy of the subordinate making performance improvements.

[4] There is some evidence for a negative relationship between expectancy and effort allocated to pursuing a goal at very high levels of expectancy (Beck et al., 2019; Sun et al., 2014; Vancouver et al., 2008). However, this negative relationship is only observed when the expectancy of achieving a goal approaches certainty. Achieving the goal of improving a subordinate's performance is likely never going to be perceived as a certainty as it is not under total control of the manager, and is an ongoing goal with no clear end-point. Thus, we base our predictions on the observed positive relationship between expectancy and resource allocation.

H1: There will be a positive relationship between perceived subordinate mental health and expectancy of subordinate performance improvement.

H2: There will be a positive relationship between expectancy of subordinate performance improvement and manager feedback behavior.

H3: There will be a positive indirect effect of perceived subordinate mental health on manager feedback behavior via expectancy of subordinate performance improvement.

Avoiding Conflict with Subordinates

In addition to the goal of improving subordinate performance, managers also have the goal to avoid conflict with their subordinates (Brown et al., 2016; Levy & Williams, 2004). Indeed, conflict can be stressful (Friedman et al., 2000) and has the potential to hurt relationships (Miller & Roloff, 2014). However, it is important to note that in order to improve their subordinates' performance, managers often must provide negative feedback. Yet, feedback sources often perceive that feedback recipients do not like receiving negative feedback (Abi-Esber et al., 2022). Thus, delivering negative feedback can be interpersonally uncomfortable and emotionally draining (Simon et al., 2022; Zhang et al., 2022). Therefore, managers employ many different tactics in order to communicate feedback while avoiding subordinate adverse reactions, such as expressing empathy, apologizing, adding humor to the feedback, and doing favors for their subordinate (Brown et al., 2016). Moreover, managers may carefully monitor and adjust the tone of their feedback message, choose words tactfully,

strategically time the delivery of their feedback, and balance any negative performance information with positive feedback.

Yet, these behaviors require an additional investment of time, energy, and attention over and above what is required to simply pursue the goal of subordinate performance improvement. That is, it costs managers a considerable amount of resources to provide high-quality feedback, and even more resources to provide that feedback in a sensitive manner. However, managers do not always have the resources available to maximize the effort allocated to providing feedback tactfully. Thus, again, managers must be strategic about their effort allocation decisions with regard to the goal of avoiding conflict with their subordinates. As with the performance improvement goal, we predict that managers will rely on their perceived *expectancy* of avoiding conflict in order to make these resource allocation decisions. Importantly, given the stereotype that people with mental illnesses are volatile, we predict that managers' expectancy of avoiding conflict with their subordinate will be lower for subordinates whom they perceive to be less mentally healthy than for subordinates whom they perceive to be more mentally healthy. That is, managers may expect subordinates with poor mental health to have inappropriate or overly emotional reactions to feedback due to the stereotype that people with mental illnesses are volatile and unpredictable.

H4: There will be a positive relationship between perceived subordinate mental health and expectancy of avoiding conflict.

However, it is more challenging to predict how manager's expectancy of avoiding conflict with their subordinates is likely to affect feedback behavior. On the one hand, there

may be a negative relationship between expectancy of avoiding conflict and feedback behavior. In other words, managers may allocate *more* effort to providing feedback to subordinates whom they perceive to be volatile in order to ensure that the feedback is credible (i.e. cannot easily be argued), sensitively delivered, and has an appropriate balance of positive and negative content (i.e., the behaviors described above). On the other hand, there may be a positive relationship between expectancy of avoiding conflict and feedback behavior. That is, managers may be hesitant to be honest with their subordinates with whom they perceive a low likelihood of avoiding conflict. Therefore, they may refrain from providing feedback so as not to encounter uncomfortable interactions. Given these competing predictions, we present a research question rather than stating a specific hypothesis about the relationship between expectancy of avoiding conflict and manager feedback behavior.

RQ1: What is the relationship between expectancy of avoiding conflict and manager feedback behavior?

The Interactive Effect of Expectancy and Valence

Lastly, we note that in order to motivate effort toward goal pursuit, an individual must not only perceive a strong likelihood of being able to achieve the goal, but the goal must also important to the individual. That is, the valence associated with achieving a goal (i.e., the subjective value of the outcome) moderates the relationship between expectancy and goal choice (Neal et al., 2017; Sun et al., 2014). Specifically, the expectancy of achieving a goal has less influence on an individual's behavior if they do not deem the goal important or worthwhile to achieve than if they do feel that the goal is important to achieve. In the present

context, we consider the extent to which a manger feels that it is important to improve their subordinate's performance. Improving a subordinate's performance can be important to managers for many reasons. For example, it may be important for managers to improve their subordinates' performance if a managers' own performance is highly dependent on the performance of their subordinates, if a manager has a strong desire to be a mentor, or if a manager has been given performance targets for their subordinates which are not being met. We expect valence of improvement to moderate the relationship between expectancy of improvement and manager feedback behavior. Specifically, we predict that the relationship between expectancy of improvement and manager feedback behavior will be stronger at higher levels of valence of improvement than at lower levels of valence of improvement.

H5: The relationship between expectancy of improvement and manager feedback behavior will be moderated by valence of improvement, such that the relationship will be stronger at higher levels of valence of improvement than at lower levels of valence of improvement.

H6: The indirect effect of perceived mental health on manager feedback behavior via expectancy of improvement will be moderated by valence of improvement, such that the indirect effect will be stronger at higher levels of valence of improvement than at lower levels of valence of improvement.

Likewise, there is valence associated with the goal of avoiding conflict. That is, avoiding conflict with subordinates may be more important to some managers than to others. For example, it may be highly important to avoid uncomfortable interactions with

subordinates for managers who are agreeable (Harari et al., 2015), have a strong desire for group harmony (Wang et al., 2010), or are sympathetic to subordinates' personal situations (Longenecker et al., 1987), yet less important for managers who do not share these traits. We expect that the valence of avoiding conflict will moderate the relationship between expectancy of avoiding conflict and manager feedback behavior. Specifically, we predict that the relationship between expectancy of avoiding conflict and manager feedback behavior will be stronger at higher levels of valence of avoiding conflict than at lower levels of valence of avoiding conflict. That is, if a manager cares very little whether they encounter conflict with their subordinate, they will not base their feedback behavior on the likelihood of encountering conflict. Yet, if a manager cares deeply about avoiding conflict, they will base their feedback behavior on the expectancy of avoiding conflict. Thus, we present the following final hypotheses:

H7: The relationship between expectancy of avoiding conflict and manager feedback behavior will be moderated by valence of avoiding conflict, such that the relationship will be stronger at higher levels of valence of avoiding conflict than at lower levels of valence of avoiding conflict.

H8: The indirect effect of perceived mental health on manager feedback behavior via expectancy of avoiding conflict will be moderated by valence of avoiding conflict, such that the indirect effect will be stronger at higher levels of valence of avoiding conflict than at lower levels of valence of avoiding conflict.

Study 1

Method

Sample

We recruited a sample of managers from Prolific. To be eligible to participate, individuals had to have at least three subordinates, work full-time outside of Prolific, reside in the United States, and have a 95%+ Prolific approval rating. Data were collected across three time points in order to combat common method variance (Podsakoff et al., 2003). Participants received 1.10 GBP for survey 1, 0.96 GBP for survey 2, and 2.00 GBP for survey 3. Of the 309 participants who completed the first survey, 260 completed the second survey, and 242 completed the third survey (retention rate = 78%). Participants who did not complete all three surveys were excluded from analyses. We also excluded participants who responded multiple times to the survey ($N = 2$), who failed an attention check ($N = 6$), and who had missing data ($N = 5$). Thus, we had a final sample of $N = 229$ for analyses. The final sample had a mean age of 43.55 ($SD = 11.82$) years, was 61% male, 70% white, had 12.03 ($SD = 8.93$) years of managerial experience, and 14.91 ($SD = 19.87$) subordinates.

Procedure

The first survey occurred on a Monday, the second on Wednesday, and the final survey on Friday of the same workweek. During the first survey, managers were asked to provide the initials of three of their current subordinates. Then, the survey was set up to randomly select one of the three subordinates on whom the manager would report. This procedure was used to avoid any selection biases, such as managers picking subordinates

with whom they have a positive relationship. Next, participants were asked to report the perceived mental health of the selected subordinate. Lastly, participants provided their own demographic information, and their best estimate of their subordinate's demographic information. During the second survey, managers responded to the expectancy of improvement, expectancy of avoiding conflict, valence of improvement, and valence of avoiding conflict items in regard to the subordinate. Finally, during the third survey, participants reported their feedback behavior toward their subordinate.[5]

Measures

Perceived Mental Health. We measured perceived mental health using the Positive Mental Health Scale (PMHS; Lukat et al., 2016) (α = .94). Lukat et al. found scores on this scale to be strongly negatively correlated with depression (r = -.74), anxiety (r = -.51), and stress (r = -.56). Because the PMHS was originally designed as a self-report measure, we adapted this scale to reference another individual. Specifically, participants were asked to rate their agreement with nine statements regarding the mental health of their subordinate on a scale from 1 (Strongly Disagree) to 7 (Strongly Agree). Sample items: "They enjoy their life" and "They manage well to fulfil their needs."

Expectancy. Expectancy of improvement and expectancy of avoiding conflict were measured with one item each: "How likely is it that [subordinate's initials]'s performance

[5] Participants also filled out the Feedback Orientation Scale (Time 1; Linderbaum & Levy, 2010) and Conflict Avoidance Scale (Time 1; Morris et al., 1998) regarding themselves, and the Task Interdependence Scale (Time 2; Pearce & Gregersen, 1991) and Task Performance Scale (Time 2; Williams & Anderson, 1991) regarding their subordinate. We collected these variables for exploratory purposes. Thus, we do not discuss these further in the main manuscript; additional information and relevant analyses can be found in Appendix B.

can be improved," and "How likely are you to be able to avoid uncomfortable interactions with [subordinate's initials]," respectively. Participants responded using a scale from 1 (Extremely Unlikely) to 5 (Extremely Likely).

Valence. Likewise, valence of improvement and valence of avoiding conflict were measured with one item each: "How important is it to you to improve [subordinate's initials]'s performance," and "How important is it to you to avoid uncomfortable interactions with [subordinate's initials]," respectively. Participants responded using a scale from 1 (Not at all Important) to 5 (Extremely Important).

Manager Feedback Behavior. Managers were asked to rate their agreement with the 28-items from the Manager Feedback Behavior Scale (Essay 1). This scale captures seven factors of manager feedback behavior: fostering credibility, providing high-quality feedback, delivering feedback with tact, providing positive feedback, providing negative feedback, ensuring availability, and promoting feedback-seeking. However, these factors reflect an overarching construct of manager feedback behavior, and thus, we use the overall scale score in analyses. Participants responded on a scale from 1 (Strongly Disagree) to 7 (Strongly Agree). Sample items include "I provide them with detailed feedback about their performance", "I am considerate of their feelings when giving performance feedback", and "I let them know when their job performance falls below what is expected." Alpha was .95.

Analysis Plan

We tested our hypotheses using structural equation modelling. We specified a model in which manager feedback behavior was predicted by perceived mental health via

expectancy of improvement and expectancy of avoiding conflict. Additionally, valence of improvement moderated the relationship between expectancy of improvement and manager feedback behavior, and valence of avoiding conflict moderated the relationship between expectancy of avoiding conflict and manager feedback behavior. We also allowed both valence variables to predict manager feedback behavior directly.

We included several covariances. Specifically, interaction terms were free to correlate with their constituent parts (e.g., valence of improvement and expectancy of improvement were allowed to have non-zero correlations with the valence of improvement*expectancy of improvement interaction term), as these interaction terms likely shared a large portion of variance with the variables of which they were comprised. Additionally, we allowed the two valence measures to be correlated with one another and the two expectancy measures to be correlated with one another, as there was likely common variance between each of these pairs due to these variables being measured in similar ways. We also allowed the expectancy and valences for each goal to be correlated with one another given they were measured in response to the same goal statement. Lastly, all predictors in the model were transformed to z-scores to facilitate interpretation and place variables on a common scale. Significant interactions were investigated using simple slope analyses (Cohen et al., 2003).

To test the hypothesized indirect effects, we multiplied the relevant stage one slope (e.g., the slope from perceived mental health to expectancy of improvement) with the relevant stage two slope. For example, for the indirect effect from perceived mental health to manager feedback behavior via expectancy of improvement, the stage two slope was the

simple effect of expectancy of improvement on manager feedback behavior at low (-1 SD) and high (+1 SD) levels of valence of improvement. After calculating the product of the stage one and stage two slopes, we calculated a confidence interval around the obtained value using a Monte Carlo simulation approach (Preacher & Selig, 2012). That is, we simulated a normal distribution (N = 500,000) around each slope comprising the indirect effect using the estimate as the mean, and standard error as the standard deviation. Then, we multiplied the stage one and stage two distributions to generate a distribution of the indirect effect. Lastly, we obtained confidence intervals around the indirect effect by identifying the 2.5th and 97.5th percentiles of this distribution. The indirect effect was considered statistically significant if the confidence interval did not include zero. This approach accounts for the asymmetry observed in distributions of indirect effects (MacKinnon et al., 2002).

Results

Descriptive Statistics

Descriptive statistics and correlations are presented in Table 13. Overall, managers reported engaging high levels of feedback behaviors (M = 5.97, SD = .64). Yet, manager feedback behavior had sufficient variance to be correlated with perceived mental health, expectancy of improvement, valence of improvement, and expectancy of avoiding conflict.

Hypothesized Model

The hypothesized model (see Figure 2) provided a good fit to the data (*RMSEA* = .057, *CFI* = .968, *SRMR* = .052). We provide direct tests of our hypotheses below.

H1-H6. We found support for H1, as perceived mental health was a positive predictor of expectancy of improvement (see Figure 2). That is, the more robust a manager perceived a subordinate's mental health to be, the more likely they thought that the subordinate could make performance improvements. In turn, we also found support for H2, as expectancy of improvement was positively related to manager feedback behavior (see Figure 2). We also found support for H3, as there was a positive indirect effect of perceived mental health on manager feedback behavior via expectancy of improvement (see Table 14). Additionally, perceived mental health was positively related to expectancy of avoiding conflict, providing support for H4 (see Figure 2).

We also found support for H5, as there was a significant interaction between expectancy of improvement and valence of improvement in predicting manager feedback behavior (see Figure 3). Simple slopes investigation revealed that there was both a significant positive relationship between expectancy of improvement and manager feedback behavior at high levels of valence of improvement, $b = .25$, $SE = .06$, $p < .001$, and at low levels of valence of improvement, $b = .11$, $SE = .05$, $p = .021$, although the significant interaction terms indicates that this relationship was stronger for high levels of valence of improvement. Additionally, the indirect effect of perceived mental health on manager feedback behavior via expectancy of improvement was significant at both high levels of valence of improvement, and low levels of valence of improvement. Moreover, these indirect effects were not significantly different from one another (see Table 14). Thus, the indirect effect of

perceived mental health on manager feedback behavior was not moderated by valence of improvement, failing to provide support for H6.

RQ1. With regard to *RQ1*, we found no linear relationship between expectancy of avoiding conflict and manager feedback behavior. Previously, we proposed that on the one hand, there could be a positive relationship between expectancy of avoiding conflict and manager feedback behavior. Managers may feel freer to give honest, frequent feedback without threat of interpersonal conflict to subordinates with whom they expect to be able to avoid conflict versus subordinates whom they deem likely to have an emotional reaction to feedback. Yet, on the other hand, there may be a negative relationship between expectancy of avoiding conflict and manager feedback behavior. That is, if mangers perceive that they are unlikely to be able to avoid conflict with a subordinate, they may feel as though they have to engage in a great deal of preparation for feedback interactions with that subordinate. However, we presently note the possibility that there may be *both* a positive *and* negative relationship between expectancy of avoiding conflict and manager feedback behavior. Importantly, these effects would be obscured by only including the linear term for expectancy of avoiding conflict. Therefore, we ran an additional model including the squared expectancy of avoiding conflict term.

Revised Model

In the revised model we retained all paths from the hypothesized model, and added a squared expectancy of avoiding conflict term predicting manager feedback behavior, as well as an interaction term between the squared expectancy of avoiding conflict term and valence

of avoiding conflict (see Figure 4). This model provided an acceptable fit to the data, *RMSEA* = .088, *CFI* = .926, *SRMR* =.061. Although the fit of the revised model was statistically significantly worse than Model 1 *(*$\Delta\chi^2 = 20.12$, $\Delta df = 4$, $p < .001$; $\Delta CFI = .042$), we nevertheless present and interpret the results as we feel that they provide valuable insights into the data that are not available in the hypothesized model.

H1-H6. In the revised model, support for the first six hypotheses remained the same as they were in the hypothesized model (see Figure 4, Figure 5, Table 15).

RQ1, H7-H8. We found a significant curvilinear relationship between expectancy of avoiding conflict and manager feedback behavior. With regard to RQ1, we found that the relationship between expectancy of avoiding conflict and manager feedback behavior was both positive *and* negative, depending on the level of expectancy of avoiding conflict. That is, the relationship between expectancy of avoiding conflict and manager feedback behavior was U-shaped, such that at low levels of expectancy of avoiding conflict, the relationship was negative, whereas at high levels of expectancy of avoiding conflict, the relationship was positive (see Figure 6). Moreover, we found support for H7, as the relationship between expectancy of avoiding conflict and manager feedback behavior was indeed strengthened by valence of avoiding conflict (see Figure 6). In other words, the relationship between expectancy of avoiding conflict and manager feedback behavior was U-shaped for managers who felt that avoiding conflict was very important (high valence), but flatter for managers who believed that avoiding conflict was less important (low valence).

Lastly, we determined whether there was a moderating effect of valence of avoiding conflict on the indirect effect of perceived mental health on manager feedback behavior via expectancy of avoiding conflict (H8). We note that within a regression model containing a squared term, the linear term represents the simple (i.e., linear) effect of the predictor on the dependent variable where the predictor equals zero (Cohen et al., 2003, Ch. 6). Therefore, we ran this model three times, each time centering the expectancy of avoiding conflict variables around low (-1 SD), moderate (mean), or high (+1 SD) values. Doing so changes the location of zero, thereby providing the linear regression slope at each of these levels, which we then used to test the indirect effect.

Furthermore, we also tested for moderated mediation. We did so by computing the simple effect of the predictor (expectancy of avoiding conflict) on managerial feedback behavior at both low and high values of the moderator (valence of avoiding conflict). Then, we used these six simple effects (low vs. moderate vs. high expectancy of avoiding conflict × high vs. low valence of avoiding conflict) to compute the indirect effects. These results are contained in Table 16. For managers who reported low values of expectancy of avoiding conflict, there was no indirect effect of perceived mental health on manager feedback behavior via expectancy of avoiding conflict at either low or high levels of valence of avoiding conflict. However, for managers who reported either high or moderate levels of expectancy of avoiding conflict, the indirect effect of perceived mental health on feedback behavior via expectancy of avoiding conflict was significant at high levels of valence of avoiding conflict, but not at low levels of valence of avoiding conflict. Nonetheless, tests of

the differences between indirect effects within each level of expectancy of avoiding revealed that the difference between levels of valence of avoiding conflict was not significant at either high or mean levels of expectancy of avoiding conflict, as the confidence intervals contained zero (see Table 16). Thus, we did not find support for H8.

Discussion

Overall, we found support for our central premise: managers' feedback behavior was related to their perceptions of their subordinates' mental health. This relationship was mediated by managers' perception of the expectancy of being able to avoid uncomfortable interactions with their subordinate and their perception of the expectancy of their subordinate making performance improvements. However, we did not find that the indirect effect of perceived mental health on manager feedback behavior via expectancy of improvement was stronger for managers who placed a high value on improving their subordinate's performance than for managers who did not place much value in improving their subordinate's performance. In other words, the effect of perceived mental health on manager feedback behavior via expectancy of improvement was significant, regardless of how important it was to the manager to improve their subordinate's performance. One possible explanation for this result is that managers may be aware that it is important or beneficial to the organization for a subordinate to improve. Thus, even if the manager does not perceive much valence in improving the subordinate to themselves, they may still engage in feedback behavior if there is a high likelihood of the subordinate improving to benefit the organization as a whole.

Initially, we were unsure whether the relationship between expectancy of avoiding conflict and manager feedback behavior would be negative or positive. Our results showed that this relationship was curvilinear in nature, encompassing both positive and negative slopes. We suspect that managers who perceived a low probability of avoiding conflict felt that they had to be more careful during, and prepare more for, feedback interactions with their subordinate relative to managers who perceived a moderate probability of avoiding conflict. On the other hand, we suspect that managers who perceived a high probability of avoiding conflict felt more free to provide feedback without social repercussions, and thus also engaged in more feedback behaviors than managers who perceived an average likelihood of avoiding conflict.

Although this study has several strengths, such as separating measures in time and sampling a wide array of work settings, it is not without limitations. Most importantly, by using a between-subjects approach, there is a possibility that there are certain managerial characteristics that make a manager both more likely to perceive that a subordinate has poor mental health and less likely to engage in feedback behavior. For example, managers who are experiencing mental health issues themselves may be more likely to recognize the same symptoms in others, and be less likely to engage in feedback behavior as they may not have the emotional capacity to perform interpersonally taxing tasks. Moreover, based on this data, we are unable to determine whether managers *adjust* their feedback behavior between subordinates based on perceptions of mental health. Rather, the results indicate that managers who perceive that their subordinate has poor mental health also perceive that their

subordinates are not likely to make performance improvements, and that they are not likely to be able to avoid conflict with their subordinate. In turn, managers base their feedback behaviors on these perceived expectancies. We attempt to replicate and extend upon these results in Study 2, which will control for manager-specific characteristics by examining within-person adjustments in manager feedback behavior. That is, in Study 2, we ask managers to report on four subordinates. In this way, we will be able to ascertain whether managers differentiate their feedback behavior between subordinates based on perceived subordinate mental health.

Study 2

Method

Sample

We recruited a sample of full-time managers with at least four subordinates from Prolific. To be eligible for the study, individuals could not have participated in Study 1, had to be located in the United States, and had to hold full-time employment outside of Prolific. Data were collected across four time points (Friday, Monday, Wednesday, Friday). Participants received 1.50 GBP for completing the first survey, 1.25 GBP for each of the second and third surveys, and 2.00 GBP for the final survey. Of the 295 participants who completed the first survey, 205 returned for all four surveys (69% retention rate). Participants who did not complete all four surveys were excluded from analyses. An additional three participants were excluded due to failing an attention check, and two participants were excluded due to possible duplicate responding. Therefore, we had a final sample of n = 800

observations nested within $N = 200$ managers. On average, the final sample was 42.82 (SD = 10.34) years old, had 10.34 (SD = 6.95) years of managerial experience, and 15.12 (SD = 18.67) subordinates. Additionally, 60% of the final sample were men, and 62% of the final sample were white.

Procedure

During the first survey, participants provided initials for four of their subordinates. Then, they were asked to report their first subordinate's mental health and whether they were aware of any mental health diagnosis for the subordinate. Then, they filled out measures of expectancy of improvement, expectancy of avoiding conflict, valence of improvement, valence of avoiding conflict, and performance for the first subordinate. Next, participants reported their feedback behavior toward that subordinate. Lastly, they were asked to make their best estimate of the first subordinate's demographic information (i.e., age, gender, ethnicity), and report their own demographic information (i.e., age, gender, ethnicity, managerial experience, number of subordinates). In the second, third, and fourth surveys, managers filled out the same measures regarding their second, third, and fourth subordinates, respectively[6].

[6] We also collected measures of subordinate task performance and manager awareness of mental health diagnoses for each subordinate to be used as control variables. Including subordinate task performance in the model does affect the results with regard to H1 and H3. However, we argue that it is more appropriate to interpret the results without task performance in the model as the subjective measure of task performance used is likely entangled with ratings of subordinate mental health. More information and analyses including these variables can be found in Appendix C.

Measures

Perceived mental health and manager feedback behavior were captured using the same measures as in Study 1.

Expectancy. Expectancy was measured using the same two items as in Study 1 ("How likely is it that [subordinate's initials]'s performance can be improved," and "How likely are you to be able to avoid uncomfortable interactions with [subordinate's initials]?"). However, participants responded using a 0 (Not at all Important) to 100 (Extremely Important) scale.

Valence. Valence was measured using the same two items as in Study 1 ("How important is it to you to improve [subordinate's initials]'s performance," and "How important is it to you to avoid uncomfortable interactions with [subordinate's initials]?"). Participants responded using a 0 (Extremely Unlikely) to 100 (Extremely Likely) scale.

Analysis Plan

We tested our hypotheses using multi-level structural equation modeling. This approach allowed us to account for the nested nature of our data and test all paths in our model simultaneously (Preacher et al., 2010). As we were interested in within-person relationships between variables, we within-person mean centered all variables in our model, thus eliminating between-person variance (Hofmann & Gavin, 1998; Hoffman & Walters, 2022). In other words, the intra-class correlations for all variables in the model were zero. Additionally, we transformed all predictors to z-scores to facilitate interpretation.

As in Study 1, we specified our hypothesized model in which manager feedback behavior was predicted by perceived mental health via expectancy of improvement and expectancy of avoiding conflict. Also, valence of improvement moderated the relationship between expectancy of improvement and manager feedback behavior, and valence of avoiding conflict moderated the relationship between expectancy of avoiding conflict and manager feedback behavior. Additionally, valence of improvement and valence of avoiding conflict predicted manager feedback behavior directly. We also included the same covariances as in Study 1. That is, interactions terms were allowed to covary with their constituent parts, the two valence measures were allowed to covary, the two expectancy measures were allowed to covary, and the expectancy and valence measures for each goal were allowed to be correlated.

Again, the hypothesized indirect effects were tested by multiplying the relevant stage one (e.g., the slope from perceived mental health to expectancy of improvement) and stage two slope (e.g., the slope from expectancy of improvement to manager feedback behavior). Then, we again used a Monte Carlo simulation approach (N = 500,000) to calculate confidence intervals around the observed indirect effects (Preacher & Selig, 2012).

Results

Descriptive Statistics

Descriptive statistics and correlations are presented in Table 17. We computed intra-class correlations (ICCs) on the raw score variables (i.e., not within-person centered). These ICCs revealed that 67% of the variance in manager feedback behavior was attributable to

between-manager differences, leaving 33% attributable to within-manager adjustments. Additionally, only 22% of the variance in perceived mental health was attributable to between-manager differences, meaning 78% of the variance in perceived mental health was due to the specific subordinate on whom a manager was reporting. That is, managers appear to perceive differences between their subordinates' mental health, and do make adjustments to their feedback behavior between subordinates, supporting our investigation of our hypotheses at the within-person level.

Hypothesized Model

Overall, the hypothesized model (see Figure 7) provided a good fit to the data (*RMSEA* = .071, *CFI* = .912, *SRMR* = .041).

H1-H4. We found a positive relationship between perceived mental health and expectancy of improvement, and a positive relationship between expectancy of improvement and manager feedback behavior, providing support for H1 and H2, respectively (see Figure 7). We also found support for H3, as there was an indirect effect of perceived mental health on manager feedback behavior via expectancy of improvement, *b* = .046, 95% CI [.027, .068]. There was a positive relationship between perceived mental health and expectancy of avoiding conflict, providing support for H4. That is, managers reported that they would be more likely to avoid conflict with subordinates whom they perceived to have better than average mental health than with subordinates whom they perceived to have lower than average mental health.

RQ1. With regard to RQ1, we observed no linear within-person relationship between expectancy of avoiding conflict and manager feedback behavior (see Figure 7). Moreover, because we found a U-shaped relationship between these variables in Study 1, we ran an additional model including the curvilinear term for expectancy of avoiding conflict predicting manager feedback behavior. However, this model did not provide a good fit to the data, *RMSEA* = .136, *CFI* = .746, *SRMR* = .089, and there was no within-person curvilinear relationship between expectancy of avoiding conflict and manager feedback behavior.

H5-H8. We did not find support for H5 or H6, as there was no interaction between valence of improvement and expectancy of improvement in predicting manager feedback behavior (see Figure 7). Moreover, there was no interaction between expectancy of avoiding conflict and valence of avoiding conflict (see Figure 7). Therefore, we did not find support for H7 or H8. Moreover, we note that there was no significant indirect effect of perceived mental health on manager feedback behavior via expectancy of avoiding conflict, *b* = .010, 95% CI [-.003, .024].

Discussion

As in Study 1, we found support for the central premise that managers' feedback behavior is related to their perceptions of subordinate mental health. However, unlike Study 1, this study provides valuable insights into the *adjustments* in feedback behavior that managers make among their subordinates. That is, we measured managers' feedback behavior with regard to multiple subordinates. Importantly, we show that managers tailor their feedback behavior to the specific target of the feedback, and base these adjustments on

their expectancy that the subordinate will be able to use the feedback to improve. However, unlike in Study 1, managers did not appear to shy away from, or allocate extra effort to, providing feedback to subordinates with whom they were the least likely to be able to avoid conflict. We discuss this difference in findings further in the general discussion.

General Discussion

Although there are many positive consequences of increased education and awareness surrounding mental health in the workplace (Dimoff & Kelloway, 2019), there may also be downsides to managers being relatively "tuned in" to their subordinates' mental health. Across two studies, we found evidence that managers differentiated their feedback behavior based on their perceptions of subordinates' mental health. On average, managers engaged in fewer feedback behaviors for subordinates whom they perceived to have poor mental health than for subordinates whom they perceived to be mentally healthy. Importantly, our research indicates that managers do indeed form perceptions of their subordinates' mental health, and base certain aspects of their treatment of subordinates on these perceptions.

Moreover, we found support for our predictions that this relationship could be explained using principles from self-regulatory theories of motivation. We conceptualized the act of providing feedback as relevant to two goals: improving subordinate performance, and avoiding conflict with subordinates. Thus, we proposed that managers' perceived likelihood of a subordinate making performance improvements, as well as the perceived likelihood of being able to avoid conflict with their subordinate, would mediate the relationship between perceived mental health and feedback behavior. Indeed, we found that

managers adjusted their feedback behavior based on subordinate mental health because they expected that subordinates who had worse mental health would be less likely to be able to make performance improvements than subordinates with better mental health.

Yet, the findings with regard to managers' expectations of avoiding conflict with their subordinate were more complicated, and the results differed across Study 1 and Study 2. In Study 1, we found a curvilinear relationship between expectancy of avoiding conflict and manager feedback behavior. Managers who perceived either a very low or very high likelihood of avoiding conflict with their subordinate tended to engage in the highest amount of feedback behaviors, whereas managers who perceived more moderate levels of likelihood of avoiding conflict engaged in the fewest feedback behaviors. However, in Study 2, we found no relationship between expectancy of avoiding conflict with subordinates and manager feedback behavior. Below, we consider three possible explanations for these diverging results.

First, it is possible that there is a Type I error in Study 1 (Stone & Bodner, 1967). That is, perhaps the relationship between expectancy of avoiding conflict with subordinates and feedback behavior observed in Study 1 occurred as a function of sampling error, meaning there is actually no such relationship within the overall population. We find this explanation to be unlikely, given that the pattern of results, particularly with regard to the moderating effect of valence, was largely in line with self-regulatory theory. Thus, we consider other possibilities for the diverging results across the studies. Specifically, rather than a Type I error in Study 1, it is possible that there is a Type II error in Study 2. That is,

due to sampling error, we may not have observed this relationship in our data, despite the presence of the relationship in the overall population. Given the difficulty of observing three-way interactions, especially when compared to main effects (Dawson, 2014), this is a possibility that cannot be dismissed.

Yet, there is a third possible explanation which we find to be most probable: the curvilinear relationship between expectancy of avoiding conflict with subordinates and feedback behavior may exist at the between-person level of analysis, but *not* at the within-person level (Chen et al., 2005). This would occur if the results from Study 1 reflect processes occurring *across* managers. That is, for some managers, the effort allocated to feedback may be primarily directed at avoiding negative interactions with subordinates, meaning increased expectancy of avoiding conflict signals that effort allocated to providing feedback can be reduced (e.g., by being less "guarded" in terms of the tone of feedback). Conversely, for other managers, the effort allocated to delivering feedback may be primarily focused on improving performance, meaning increased expectancy of avoiding conflict signals that effort allocated to feedback should be increased (e.g., being more available to provide feedback to subordinates). Importantly, we would not observe these two separate processes in Study 2, as between-person variance in these variables has been removed. In sum, we believe managerial individual differences account for the differences in results between Studies 1 and 2.

Theoretical Implications

This line of research provides many important theoretical contributions to both the feedback and mental health in the workplace literatures. By applying a self-regulatory lens to feedback provision, we expand understanding of manager feedback behavior, and thus feedback processes more generally. To date, research has identified motivations for feedback recipients' behavior (Anseel et al., 2015; Ashford et al., 2016), yet relatively little emphasis has been placed on motivations of the feedback source (cf. Lam et al., 2007; Minnikin et al., 2022; Zhang et al., 2022). Importantly, the present research provides evidence that managers do not allocate equal resources to providing feedback across all subordinates. That is, managers differentiate their feedback behavior based on how likely they are to see a return on their investment of effort, providing evidence that these resource allocation decisions are strategic.

Although we identify one specific factor that influences managers' feedback resource allocation decisions (i.e., perceived mental health of the subordinate), there are many possible factors that could affect managers' resource allocation with regard to feedback. For example, there are many factors that could affect managers' expectancy of the subordinate making performance improvements, such as past performance, ambition, or feedback orientation (i.e., the subordinate's receptivity to feedback; London & Smither, 2002). By conceptualizing the feedback provision process using self-regulatory theories, we provide a framework for identification of other factors that impact managers' feedback behavior.

With regard to the workplace mental health literature, we identify a potential "dark side" to increased mental health awareness and literacy (Dimoff and Kelloway, 2019). That is, managers may be more aware of the signs of mental health struggles than they have ever been in the past. Although this increased awareness facilitates access to mental health supports, it may also have unintended consequences. We identify one such consequence (lower levels of feedback), but highlight that there are many other ways in which well-meaning managers may differentially treat subordinates based on perceptions of mental health. For example, the heightened expectancy of conflict may result in managers withholding bad news (Bies, 2013) or being more dishonest (Grover, 2005) with subordinates who are perceived to have poor mental health than with subordinates who are perceived to have better mental health. Indeed, individuals who deliver bad news are often subject to retaliation from the person receiving the news (Bies, 2013), and thus managers may expect that subordinates whom they perceive to be more volatile will be more likely to retaliate upon receipt of feedback.

We also extend the conceptualization of mental illness stereotypes to include people with poor mental health, independent of any formal diagnosis. To date, much of the research on stereotypes associated with mental health has focused on people who have a specific, diagnosed, mental illness (Boysen et al., 2023; Corrigan et al., 2005; Hand & Tryssenaar, 2006). Yet, we show that stereotypes such as incompetence and volatility may affect people across the spectrum of mental health. This is an important distinction, as there may be a

much larger proportion of the population who are affected by mental illness stereotypes than previously thought.

Practical Implications

There are many practical implications that can be gleaned from this line of research. Importantly, mental illnesses have been shown to be related to many negative workplace outcomes, such as high absenteeism and presenteeism (A. L. Beck et al., 2011; Johnston et al., 2019), and poor task performance (Khalid & Syed, 2024). Although the mechanisms for these relationships are not well understood (de Oliveira et al., 2023), the present research points to a likely contributor. That is, employees who are perceived to have poor mental health receive less high-quality feedback than employees who are perceived to have better mental health. Environments wherein feedback is readily available, high-quality, and frequently given are related to many positive outcomes, such as increased job satisfaction, worker well-being, and improved performance when compared to environments wherein feedback is not as available, high quality, or frequent (Katz et al., 2021; Whitaker & Levy, 2012). Although we do not measure the feedback environment directly, we do measure managers' feedback behaviors, which are likely a key determinant of the feedback environment. Thus, by receiving less feedback than their ostensibly mentally healthy counterparts, workers who are perceived to have poor mental health may be missing out on the benefits of strong feedback environments. In other words, expectations about people with mental health issues not being able to handle feedback or improve their performance results

in managers providing them with less feedback, which in turn results in people with mental health issues not performing as well or proving that they can handle feedback.

In order to reduce the likelihood that individuals with poor mental health experience negative workplace outcomes, we have suggestions for organizations, managers, and subordinates. With regard to organizations, we suggest that they train managers to be comfortable providing feedback to all subordinates, even those who may be perceived to have poor mental health. Specifically, organizations may wish to cover topics related to feedback in mental health training that is already being given. During these training modules, training providers could emphasize that subordinates who are struggling with mental health issues may be in need of extra time and attention allocated to providing feedback, and outline strategies that managers can use to feel more comfortable providing feedback to these subordinates.

With regard to managers, we suggest that they have conversations with their subordinates about how best to provide them with feedback, and follow best practices for delivering negative feedback, and bad news more generally (Bies, 2013). For example, managers may wish to allocate extra time and energy preparing for the delivery of negative feedback to subordinates who are struggling with mental health issues by giving the subordinate advance warning about the feedback content and rehearsing the feedback message. Additionally, managers may wish to frame negative feedback messages as an opportunity for learning rather than emphasizing the subordinate's past performance that did not meet expectations (Andiola & Bedard, 2018).

Lastly, with regard to subordinates, we suggest that if a subordinate wishes to receive more feedback, they emphasize to their manager that they are capable of making performance improvements (Minnikin et al., 2022). Moreover, subordinates looking for additional feedback may wish to communicate to their managers that they are able to appropriately handle any negative feedback the manager may have, and emphasize that they are eager to receive feedback. In this way, subordinates may be able to lessen the impact of their managers' perceptions of their mental health on the feedback that they receive.

Strengths and Limitations

A key strength of this research is the use of both between- and within-subjects designs. By doing so, limitations from Study 1 were offset by the strengths of Study 2, and vise versa. Specifically, the between-subjects design used in Study 1 allowed us to separate measures in time, thereby decrease the effect of common method variance on the observed relationships. Yet, because data were only collected in reference to a single subordinate, these data do not provide unambiguous evidence that managers *adjust* their feedback behavior among their subordinates. This limitation was addressed via the use of a within-manager design in Study 2. That is, Study 2 provided direct evidence that managers tailor their feedback behavior across their subordinates, and that they did so based on their perceptions of their subordinates' mental health. However, because of the additional burdens placed on participants due to the need to report on multiple subordinates, we did not separate measures in time in Study 2. Nonetheless, we observed largely the same pattern of results in

Study 1, in which measures were separated. Importantly, the results largely correspond across these studies, providing strong support for our conclusions.

Another strength of the current research is the fact that we collected data from managers across various organizations and industries. As such, the nature of the work tasks for which managers provided feedback to their subordinates were highly varied. Thus, the results are not specific to any particular job or organizational setting, meaning they are likely to have a high degree of generalizability across contexts. Additionally, in the current research participants reported on naturally occurring interpersonal relationships with the subordinates. Again, this bolsters the generalizability of the observed results to a wide range of contexts and types of manager-subordinate relationships.

Nonetheless, the fact that we did not manipulate any variables in either study, and therefore cannot be certain about the causal ordering of the variables in our model, is an important limitation present in both studies. For example, it is possible that a manager's feedback behavior toward a subordinate may influence their expectations that a subordinate will be able to make performance improvements. That is, because feedback is generally positively associated with performance improvements (Kluger & DeNisi, 1996), managers may infer that subordinates to whom they provide a great deal of feedback will make greater performance improvements, relative to subordinates who receive relatively little feedback. Thus, future research may wish to investigate the ordering and causality of the observed relationships by conducting experimental studies. For example, researchers could conduct a vignette study wherein a hypothetical subordinate's mental health, likelihood of making

performance improvements, and likelihood of having a negative emotional reaction to feedback are manipulated, and a manager is asked to provide feedback to this hypothetical subordinate.

Another limitation present in both studies is that all constructs were measured from the manager's point of view. Although this is appropriate given that the hypotheses were centered around managers' perceptions and behavior, managers' perceptions of their own feedback behavior may not fully be aligned with their subordinates' perceptions of the feedback they receive. Indeed, there is evidence to suggest that feedback sources and feedback recipients often have differing views of feedback processes (Abi-Esber et al., 2022; Schaerer et al., 2018). That is, based on the present results, we cannot say for certain whether managers' reports of their own feedback behaviors are accurate, or whether subordinates perceive the same levels of feedback behaviors as managers report providing.

Finally, we note that all data were collected online, and thus, there is a possibility that individuals lied about their managerial status to gain access to studies on the platform. Additionally, it is possible that participants were distracted when completing the surveys. However, we employed several safeguards to lessen the effects of these threats to our data quality. Specifically, we restricted participation to Prolific users who had ≥ 95% approval ratings (i.e., generally provided high-quality data to researchers), and we excluded any participants who failed an attention check (e.g., Aguinis et al., 2021). Additionally, Prolific's screening protocol has several features to deter individuals from providing inaccurate personal information to gain access to studies, such as hiding the requirements for

participation in studies and preventing individuals from changing their prescreening answers immediately (Prolific, 2024). We also included captcha and other customized "bot" checks to screen out fraudulent responses. Lastly, we note that participants on Prolific tend to provide higher quality data than other similar platforms for collecting online data, including undergraduate student samples (Douglas et al., 2023; Peer et al., 2022). Thus, it is likely that any potential threats to data quality associated with collecting data on Prolific are minimal.

Future Directions

We focused the present research on two goals that we expected would be salient to managers, and would be directly impacted by stereotypes associated with mental illnesses. That is, we identified the goal to improve subordinates' performance, and the goal to avoid conflict with subordinates as key factors in determining managers' feedback behavior. However, feedback behavior can be motivated by a wide range of additional goals. For example, managers may have the goal to view themselves, or have others view them, as a mentor (Orth et al., 1987), and therefore may engage in feedback behavior to pursue this goal. Additionally, managers may have the goal of appearing competent to their subordinates, and may therefore engage in differing levels of feedback behavior depending on their level of confidence with regard to the subject matter of the feedback. Identification of the goals that are relevant to managers' feedback allocation decisions is a ripe area for future research. That is, in order to accurately predict and optimize managers' feedback behavior, the factors that affect managers' decision-making must first be identified.

Another important future direction for this line of research is the study of this phenomenon over time. A key feature of mental illness is that symptoms and symptom severity fluctuate (Follmer & Jones, 2018). Thus, it is possible that managers' beliefs about their subordinates' mental health may fluctuate along with the subordinates' symptoms. Yet, there is mixed evidence regarding whether impressions of others are constantly updated with new information (Brannon & Gawronski, 2017; Mann & Ferguson, 2015), or are relatively resistant to change (Nickerson, 1998; Wyer, 2010). Therefore, future research could investigate the extent to which manager's impressions of their subordinates' mental health change with symptom fluctuation, and the time frame in which these impressions get updated.

In a related vein, we note that managers withholding negative feedback, or providing less feedback, to subordinates who are struggling with their mental health may actually be helpful in the short term. That is, subordinates who are experiencing especially poor mental health may not have the capacity to make performance improvements, and thus, negative feedback may only serve to exacerbate their mental health struggles. However, in the longer term, this lack of developmental feedback is likely to hinder the subordinate's performance and career development. Thus, future research should examine at what point, or how long, refraining from providing feedback begins to harm subordinates' long-term career development.

Conclusion

In recent years, there has been an increasing focus on bolstering managers' mental health literacy (Kelloway et al., 2023). Although it is important for managers to be cognizant of mental health issues, we proposed that this increased awareness may have unintended consequences. Specifically, in the current manuscript, we showed that managers' perceptions of their subordinates' mental health are related to their feedback behavior. That is, managers tended to expect that their subordinates who had worse mental health would be less likely to make performance improvements compared to their subordinates who had better mental health. In turn, managers engaged in fewer feedback behaviors for their subordinates whom they perceived to have poorer mental health than for their subordinates whom they perceived to have better mental health. This research can be used to inform mental health and feedback training, and provides a framework for identification of additional factors that affect managers' feedback behavior.

Table 13

Study 1 Means, Standard Deviations, and Correlations (Essay 2)

	M	*SD*	*1*	*2*	*3*	*4*	*5*
1. Manager Feedback Behavior	5.97	.64	*.95*				
2. Perceived Mental Health	5.51	1.00	.30 ***	*.94*			
3. Expectancy-Improvement	4.17	.90	.37 ***	.47 ***			
4. Valence-Improvement	3.73	.96	.36 ***	.14 *	.27 ***		
5. Expectancy-Avoiding Conflict	3.83	1.10	.19 **	.36 ***	.27 ***	.06	
6. Valence-Avoiding Conflict	3.02	1.28	.17	.10	.06	.16 *	.38 ***

Note. $N = 229$. Alpha coefficients are italicized and presented on the diagonal. * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 14

Study 1, Hypothesized Model: Moderated Indirect Effect of Perceived Mental Health on Manager Feedback Behavior via. Expectancy of Improvement (Essay 2)

			95% CI				95% CI	
Moderator	Indirect Effect	*b*	*LB*	*UB*	Comparison	*b*	*LB*	*UB*
1. Low (-1 SD) Val-Improvement	PMH → Exp-Improvement → Feedback	.053	.008	.103	1 vs. 2	-.064	-.143	.011
2. High (+1 SD) Val-Improvement	PMH → Exp-Improvement → Feedback	.117	.061	.182				

Note. Confidence intervals were obtained using the Monte Carlo method. Exp = Expectancy, Val = Valence, LB = Lower Bound, UB = Upper Bound.

Table 15

Study 1, Revised Model: Moderated Indirect Effect of Perceived Mental Health on Manager Feedback Behavior via. Expectancy of Improvement (Essay 2)

			95% CI				*95% CI*	
Moderator	Indirect Effect	*b*	*LB*	*UB*	Comparison	*b*	*LB*	*UB*
1. Low (-1 SD) Val-Improvement	PMH → Exp-Improvement → Feedback	.054	.010	.102	1 vs. 2	-.071	-.149	.003
2. High (+1 SD) Val-Improvement	PMH → Exp-Improvement → Feedback	.125	.069	.190				

Note. Confidence intervals were obtained using the Monte Carlo method. Exp = Expectancy, Val = Valence, LB = Lower Bound, UB = Upper Bound.

Table 16

Study 1, Revised Model: Moderated Indirect Effect of Perceived Mental Health on Manager Feedback Behavior via. Expectancy of Avoiding Conflict (Essay 2)

		Expectancy-Avoiding Conflict (*b* [*95% CI*])		
		Low (-1 SD)	*Mean*	*High (+1 SD)*
Valence-Avoiding Conflict	*Low (-1 SD)*	-.004 [-.026, .018]	.016 [-.020, .054]	.008 [-.008, .031]
	High (+1 SD)	-.031 [-.074, .005]	.052 [.017, .095]	.033 [.045, .071]
Low vs. High Valence-Avoiding Conflict		.027 [-.015, .075]	-.037 [-.092, .016]	-.025 [-.067, .011]

Note. N = 229. Confidence intervals were obtained using the Monte Carlo method.

Table 17

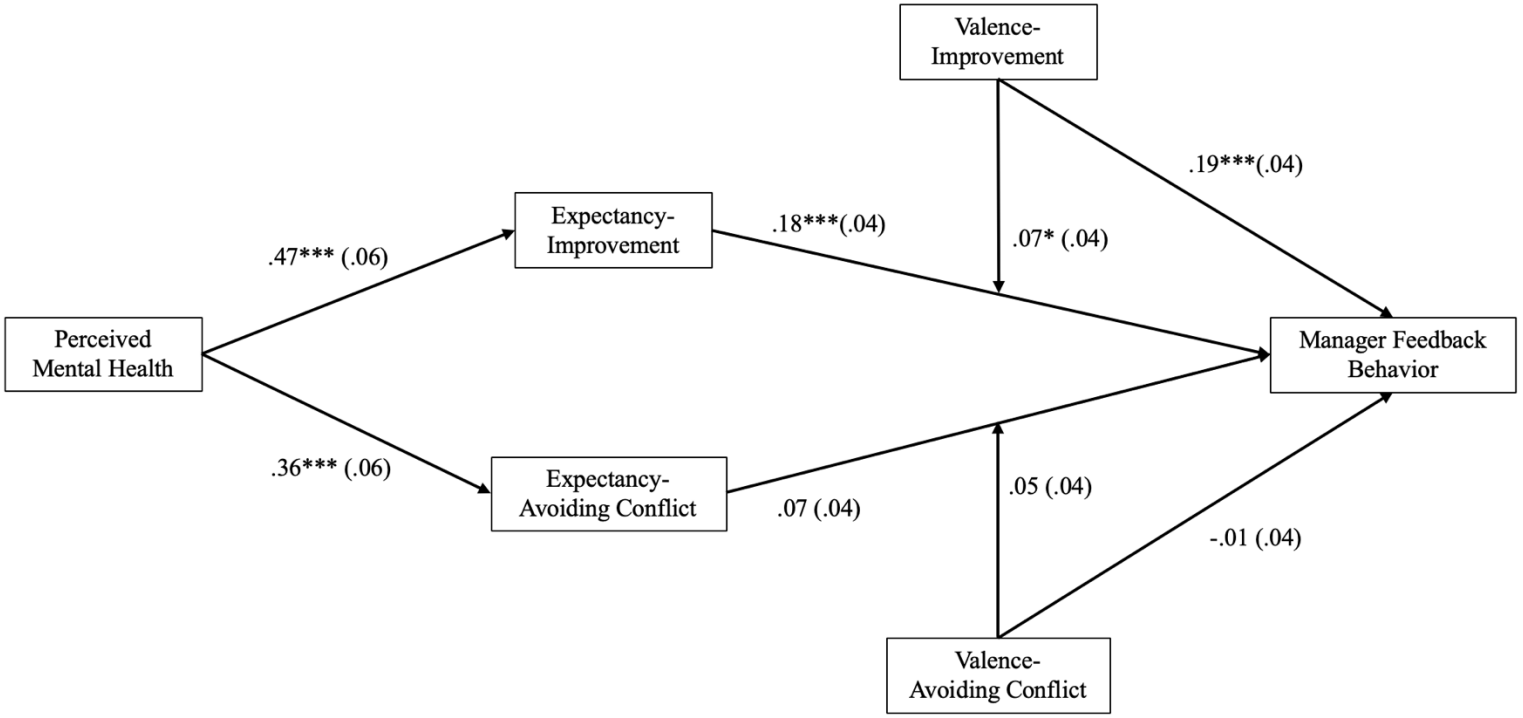
Study 2 Means, Standard Deviations, and Correlations (Essay 2)

	M	*SD(B)*	*SD(W)*	*ICC*	*1*	*2*	*3*	*4*	*5*	*6*
1. Manager Feedback Behavior	6.00	.54	.30	.67	-	.47 ***	.36 ***	.36 ***	.10	.05
2. Perceived Mental Health	5.62	.65	.77	.22	.11 **	-	.41 ***	.21 **	.19 **	.09
3. Expectancy-Improvement	7.00	1.82	1.64	.40	.25 ***	.15 ***	-	.69 ***	.16 *	.16 *
4. Valence-Improvement	6.69	2.02	1.60	.48	.20 ***	-.19 ***	.38 ***	-	.04	.26 ***
5. Expectancy-Avoiding Conflict	6.41	2.22	1.98	.41	.13 ***	.16 ***	.06 †	-.03	-	.62 ***
6. Valence-Avoiding Conflict	5.12	2.76	1.77	.61	.19 ***	-.08 *	.00	.06 †	.43 ***	-

Note. Within-subject correlations are shown below the diagonal (800 observations). Scores were centered at each participant's mean to compute within-subject correlations. Between-subject correlations are shown above the diagonal (200 individuals). Scores were averaged within each participant to compute between-subject correlations. † $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

Figure 2

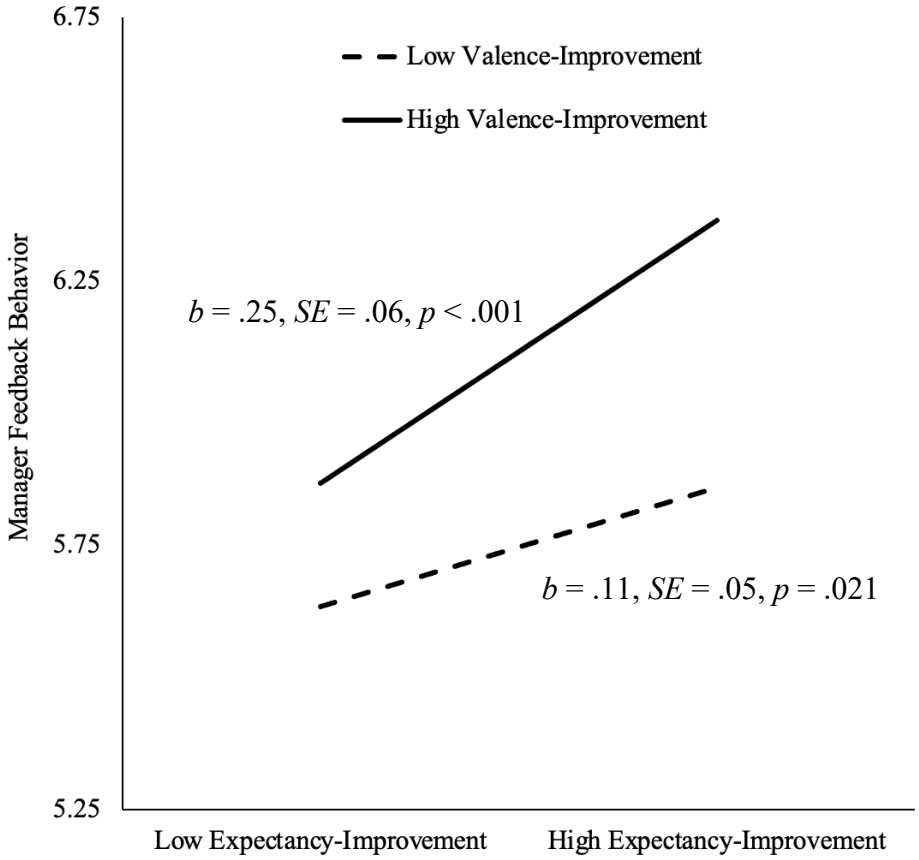
Study 1 Hypothesized Model Results (Essay 2)



Note. $N = 229$. *RMSEA* = .057, *CFI* = .968, *SRMR* = .052. Numbers in brackets represent standard errors. ***$p < .001$, * $p < .05$.

Figure 3

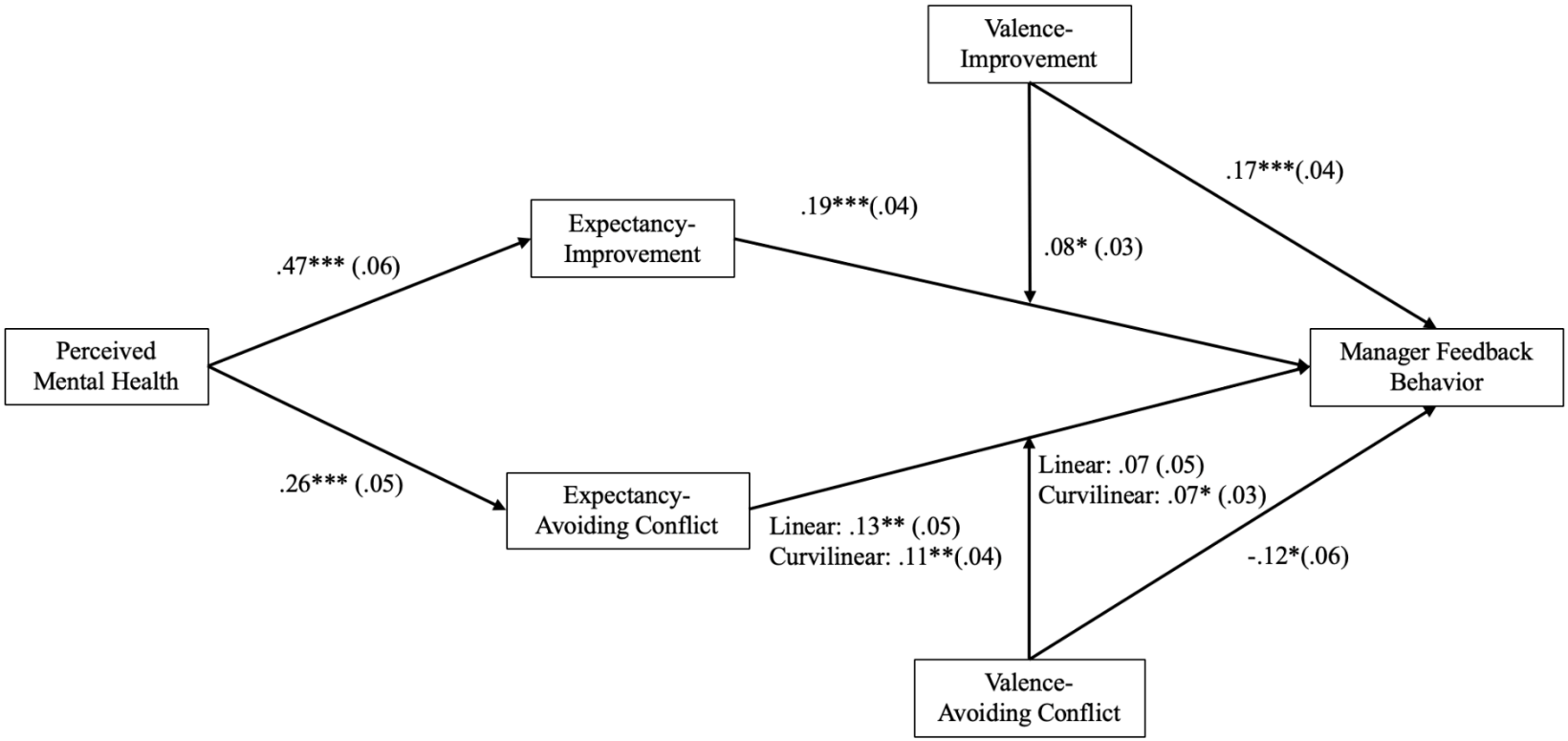
Study 1, Hypothesized Model: Interaction between Expectancy of Improvement and Valence of Improvement in Predicting Manager Feedback Behavior (Essay 2)



Note. $N = 229$. Low values were plotted at -1 *SD,* and high values were plotted at +1 *SD.*

Figure 4

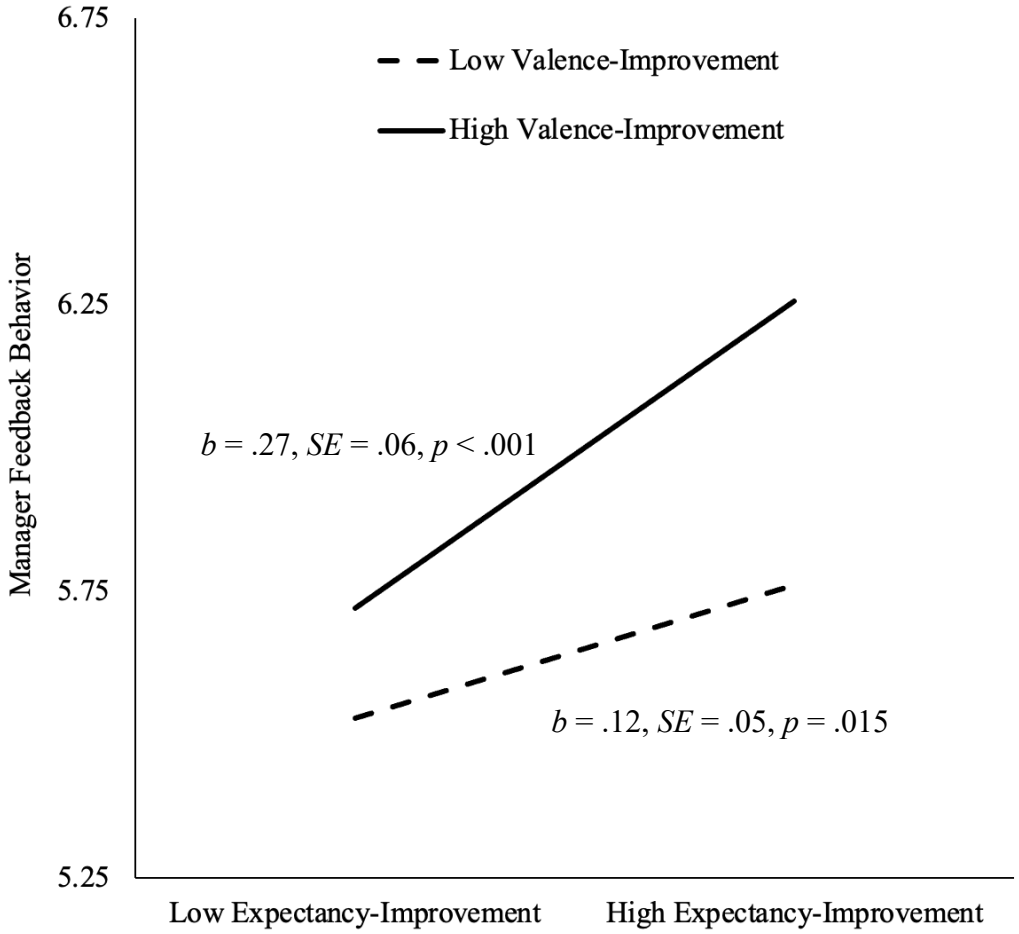
Study 1 Revised Model Results (Essay 2)



Note. $N = 229$. *RMSEA* = .088, *CFI* = .926, *SRMR* = .061. Numbers in brackets represent standard errors. ***$p < .001$, **$p < .01$, * $p < .05$.

Figure 5

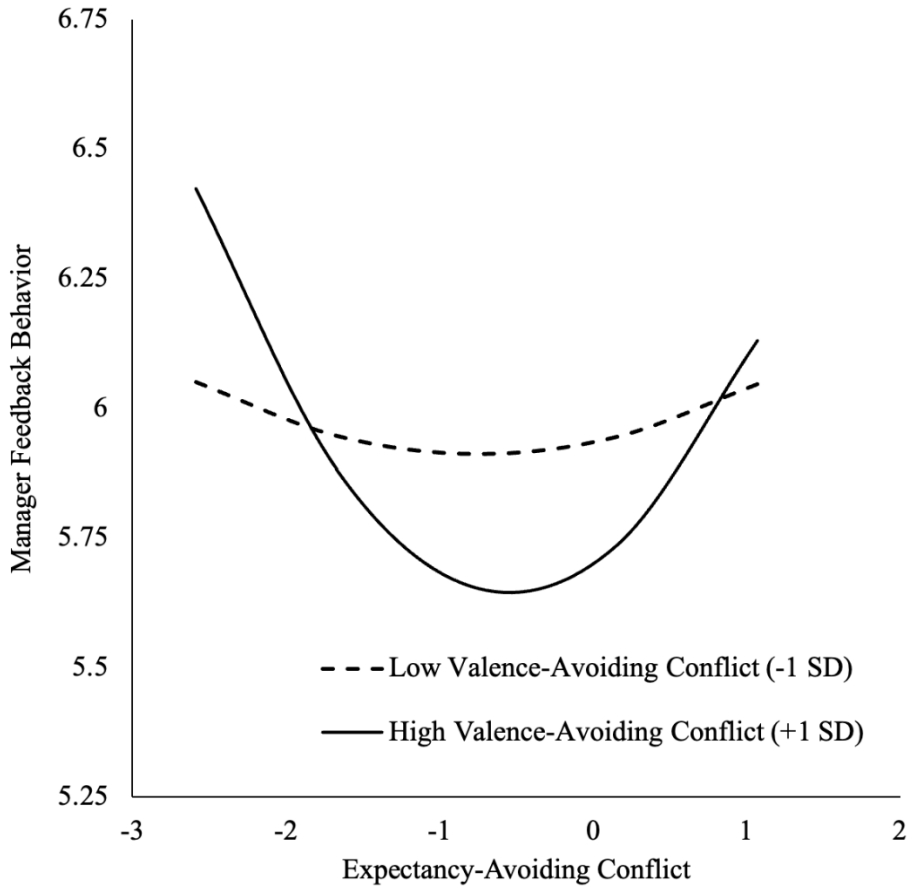
Study 1, Revised Model: Interaction between Expectancy of Improvement and Valence of Improvement in Predicting Manager Feedback Behavior (Essay 2)



Note. $N = 229$. Low values were plotted at -1 *SD,* and high values were plotted at +1 *SD.*

Figure 6

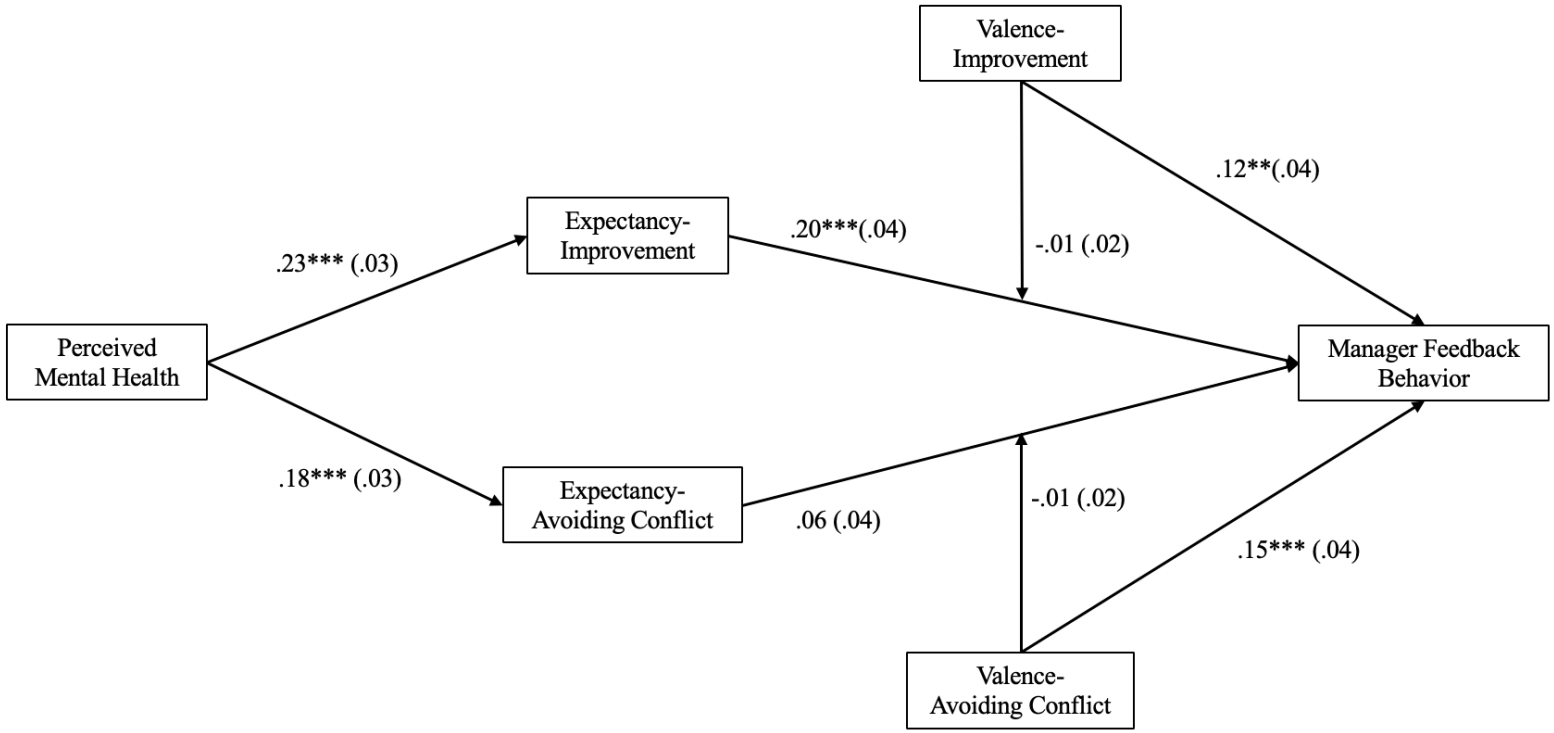
Study 1 Moderated Curvilinear Relationship Between Expectancy of Avoiding Conflict and Manager Feedback Behavior (Essay 2)



Note. $N = 229$. Predictors have been z-scored to facilitate interpretation.

Figure 7

Study 2 Hypothesized Model Results (Essay 2)



Note. n = 800. *RMSEA* = .071, *CFI* = .912, *SRMR* = .041. All variables have been within-person mean centered. Numbers in parentheses represent standard errors.

CHAPTER 4: CONCLUDING REMARKS

The term "feedback" encompasses a wide variety of interactions and behaviors. That is, feedback looks, sounds, and feels different depending on the context, mode of delivery, and relationship between parties. For example, feedback can be highly valued, or unwanted. It is a work task, but can feel personal, and it can be loaded with valuable information, or it can be somewhat useless. Importantly, the particulars associated with any given feedback episode are largely determined by the *provider* of the feedback (i.e., managers). Yet, little is known about managers' perspectives on their own feedback behavior, or the internal processes associated with their decision making with regard to providing feedback. To this end, I presented two essays investigating managerial feedback behavior.

In Essay 1, I developed a self-report tool to capture managers' feedback behavior. In Essay 2, I uncovered a relationship between managers' perceptions of their subordinates' mental health and the amount of feedback behavior in which the managers engaged. Across these essays, I found evidence that managers differentiate their feedback behavior between subordinates. Moreover, I provide the means to further examine managers' feedback behavior in the form of a scale and a theoretical framework that can be used to identify factors affecting managers' resource allocation decisions with regard to feedback. This dissertation highlights the importance of accounting for managers' contributions toward feedback processes, as not all subordinates receive the same quality or amount of feedback behavior. Over time, differences in access to quality feedback could have ramifications for subordinates' career development. In sum, much of the value in this dissertation lies not in the particular findings presented, but rather in the shift in perspective and resulting opportunities for further investigation of feedback processes from the managers' point of view.

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Appendix A: Manager Feedback Behavior Scale

Instructions (Multiple Subordinates): Please think about your behavior in general when interacting with your subordinates at work and indicate your agreement with the following statements.

Instructions (Single Subordinate): Please think about your behavior in general when interacting with *[Target Subordinate]* at work and indicate your agreement with the following statements.

***Response Scale*:** 1 [Strongly Disagree], 2 [Disagree], 3 [Somewhat Disagree], 4 [Neither agree nor disagree], 5 [Somewhat Agree], 6 [Agree], 7 [Strongly Agree].

Items:

Fostering Credibility

1. I make sure to observe their performance on the job.
2. I ensure that I have all relevant information before giving them feedback.
3. I strive to evaluate their performance in a manner that is fair.
4. I review their work prior to providing them with feedback.

Providing High-Quality Feedback

5. I put a lot of effort into providing feedback that is constructive.
6. I provide them with feedback that they can put into action.
7. The feedback that I give them contains practical suggestions for improvement.
8. I provide them with detailed feedback about their performance.

Delivering Feedback with Tact

9. I am considerate of their feelings when giving performance feedback.
10. I try to "soften the blow" when I need to give them feedback.
11. I make sure to phrase my feedback so that they do not take it personally.
12. I try to avoid upsetting them while giving them feedback.

Providing Positive Feedback

13. I praise their performance when they do a good job at work.
14. I let them know when they do a good job at work.
15. I provide them with positive feedback.
16. When they perform well, I make sure to acknowledge it.

Providing Negative Feedback

17. I tell them when their work does not meet organizational standards.
18. I let them know when their job performance falls below what is expected.

19. I tell them when they make mistakes at work.
20. I let them know if I think they are falling behind.

Ensuring Availability

21. I try to be available when they want performance information.
22. I am an accessible source of feedback for them.
23. I make time to provide them with the feedback they need.
24. I try to be an approachable source of feedback for them.

Promoting Feedback-Seeking

25. I encourage them to ask for feedback whenever they are uncertain about their job performance.
26. I emphasize the importance of seeking feedback to them.
27. I tell them that if they are unsure about their performance, they should ask for feedback.
28. I tell them that I am always happy to give them feedback.

Appendix B: Essay 2, Study 1 Supplemental Analyses

We also collected additional measures in Study 1 for exploratory purposes and to be used as control variables. We describe these measures and present results including these variables in this section.

Additional Measures

Feedback Orientation. Feedback orientation was measured at time one using Linderbaum & Levy's (2010) 20-item scale. This scale contains four factors: utility (perceived usefulness of feedback), accountability (felt obligation to use feedback), social awareness (tendency to use feedback for interpersonal purposes), and feedback self-efficacy (confidence in ability to receive and respond to feedback). However, we use the overall feedback orientation score in analyses as we have no specific predictions regarding individual feedback orientation factors. Participants responded using a scale from 1 (Strongly Disagree) to 5 (Strongly Agree). Sample item: "Feedback is critical for improving performance".

Trait Conflict Avoidance. Trait conflict avoidance was measured at time one using the 11-item Avoiding subscale of the Managing Conflict Scale (Morris et al., 1998). Participants responded using a scale from 1 (Strongly Disagree) to 5 (Strongly Agree). Sample item: "I try to avoid unpleasant exchanges."

Task Interdependence. Task interdependence was measured at time two using the 11-item Task Interdependence Scale (Pearce & Gregersen, 1991). Participants rated their agreement with each item using a scale from 1 (Strongly Disagree) to 5 (Strongly Agree). Sample item: "I frequently must coordinate my efforts with [subordinate's initials]."

Subordinate Task Performance. At time two, we collected managers' rating of their subordinate's performance in order to control for the effects of performance in our model. Subordinate performance was measured using Williams & Anderson's (1991) 7-item scale. Participants responded using a scale of 1 (Strongly Disagree) to 5 (Strongly Agree). Sample item: "Adequately completes assigned duties."

Subordinate Mental Health Diagnosis. We collected managers' awareness of any mental health diagnosis their subordinate may have in order to control for the effects of this awareness in our model. Manager awareness of a subordinate mental health diagnosis was measured at time one using two items: "Has [subordinate's initials] ever formally or informally disclosed a mental illness diagnosis to you?" and "Has [subordinate's initials] ever formally or informally disclosed a mental illness diagnosis to a human resources department at your organization?" Responses were given by clicking one of four radio buttons: yes, no, I don't know, or I prefer not to answer. If either of the items were answered with "yes", subordinate mental health diagnosis was coded as 1. Otherwise, subordinate mental health diagnosis was coded as 0.

Results

Means, standard deviations, and correlations are presented in Table B.1.

Control Variable Model. In this model, we retained all terms from the revised model in the manuscript, and added three control variables (subordinate task performance, subordinate mental health diagnosis, and manager feedback orientation). That is, we added task performance as a predictor of manager feedback behavior, as managers may engage in

more feedback behavior for their higher performers versus their lower performers. We also included feedback orientation as a predictor of manager feedback behavior, as managers with a strong feedback orientation may be more likely to engage in feedback behaviors than managers with a weaker feedback orientation, regardless of other factors. We added subordinate mental health diagnosis as a predictor of perceived mental health, as the awareness of a formal mental health issue likely impacts mangers' perceptions of their subordinate's overall mental well-being. Additionally, we include task performance as a predictor of perceived mental health, as managers may use task performance to infer the well-being of their subordinate. This model provided a poor fit to the data, *RMSEA* = .098, *CFI* = .829, *SRMR* = .096.

Thus, we included three additional paths in order to improve model fit. Specifically, we allowed feedback orientation to predict valence of improvement, as managers with stronger feedback orientations may place more of an emphasis on improving their subordinate's performance relative to managers with weaker feedback orientations. Additionally, we allowed subordinate mental health diagnosis to directly predict expectancy of avoiding conflict, and task performance to directly predict expectancy of improvement. This model provided a good fit to the data, *RMSEA* = .059, *CFI* = .942, *SRMR* = .067 (See Figure B.1). Subordinate task performance was a significant predictor of manager feedback behavior, perceived mental health, and expectancy of improvement. Subordinate mental health diagnosis was a significant predictor of expectancy of avoiding conflict, but not

perceived mental health. Lastly, feedback orientation was a significant predictor of manager feedback behavior and valence of improvement.

By including these three control variables, the overall pattern of results found in Study 1 does not change, with one main exception. Specifically, the interaction between expectancy of improvement and valence of improvement is no longer significant, $b = .04$, $SE = .03$, $p = .214$. However, when plotted, this interaction forms a similar pattern as in the models presented in the manuscript (see Figure B.2). That is, the relationship between expectancy of improvement and manager feedback behavior is not significant at low levels of valence of improvement, $b = .05$, $SE = .05$, $p = .233$, but is significant at high levels of valence-improvement, $b = .13$, $SE = .06$, $p = .021$. Thus, we feel it remains appropriate to interpret our results without these extra control variables in the manuscript.

Distal Valence Predictor Model. We were curious about how managers form their perceptions of the valences associated with avoiding conflict and improving their subordinate's performance, and why some managers might find these goals more important than others. Therefore, we collected two variables to use to predict these valences for exploratory purposes: trait conflict avoidance and task interdependence. Thus, in the distal valence predictor model, we retain all paths from the control variable model, and add trait conflict avoidance predicting valence of avoiding conflict and task interdependence predicting valence of improvement (see Figure B.3). This model provided an acceptable fit to the data, $RMSEA = .067$, $CFI = .921$, $SRMR = .074$.

Task interdependence was a significant predictor of valence of improvement, indicating that managers who perceived that the performance of their own work tasks was more dependent upon their subordinate's performance of work tasks felt that it was more important to improve their subordinate's performance than managers who felt lower levels of dependence. However, trait conflict avoidance did not predict managers' perceptions of the importance of avoiding conflict with their subordinate.

Discussion

We ran two auxiliary models, one to investigate the effects of control variables on our results, and one to investigate potential predictors of managers' perceptions of the importance of achieving certain goals when providing feedback. We found that although adding control variables did slightly alter our findings, the overall pattern of results was robust. Additionally, we identified one predictor of managers' perceptions of valence of improvement (task interdependence). However, we point to this as an interesting avenue for future research, as there are many possible contributors to managers' perceptions of the importance of not having uncomfortable interactions with their subordinates and the importance of improving their subordinates' performance. After identifying these predictors, it may be possible to create interventions to boost managers' perceptions of the valences associated with various goals when providing feedback, and in turn, increase managers' feedback behavior.

Table B.1

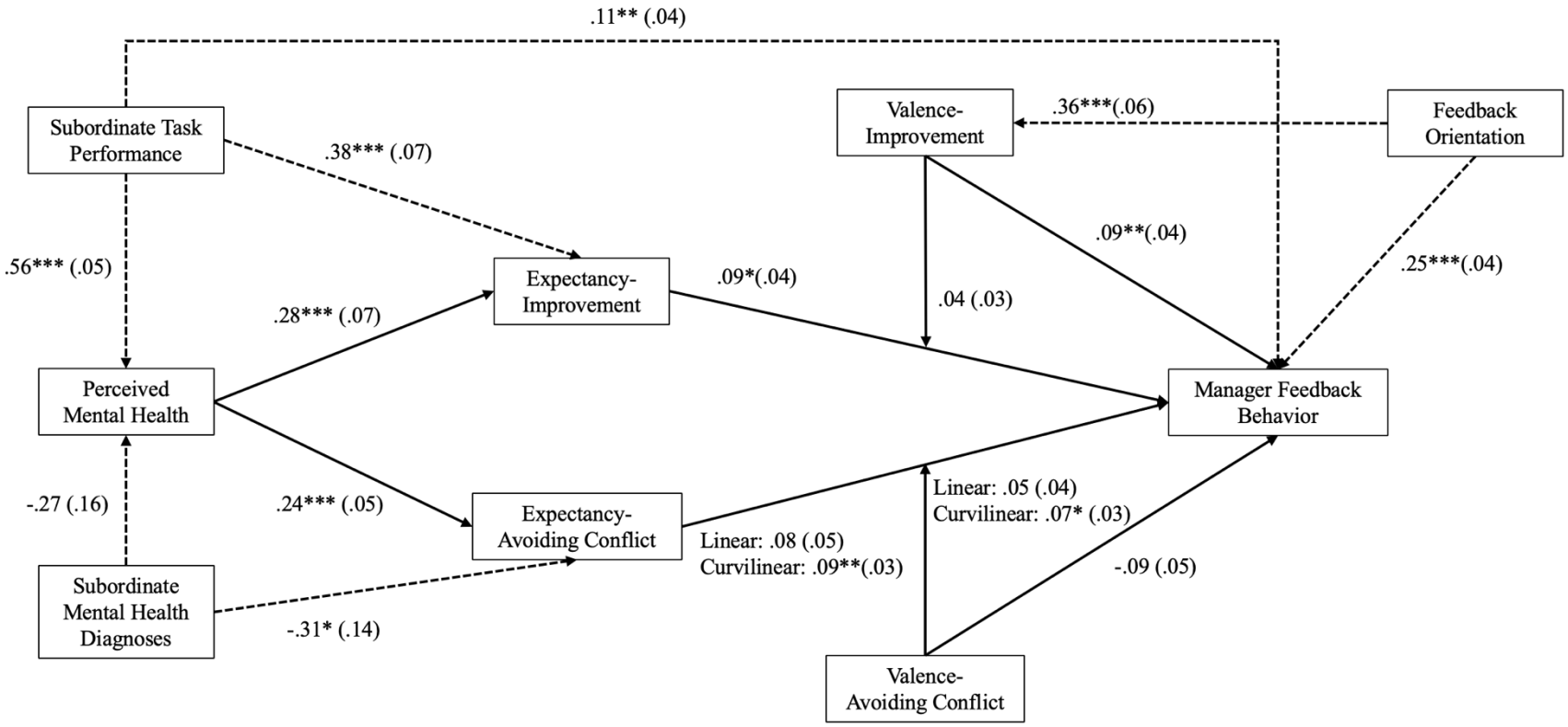
Essay 2, Study 1 Means, Standard Deviations, and Correlations with Exploratory Variables

	M	*SD*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
1. Manager Feedback Behavior	5.97	.64	*.95*									
2. Perceived Mental Health	5.51	1.00	.30 ***	*.94*								
3. Expectancy-Improvement	4.17	.90	.37 ***	.47 ***								
4. Valence-Improvement	3.73	.96	.36 ***	.14 *	.27 ***							
5. Expectancy-Avoiding Conflict	3.83	1.10	.19 **	.36 ***	.27 ***	.06						
6. Valence-Avoiding Conflict	3.02	1.28	.17	.10	.06	.16 *	.38 ***					
7. Feedback Orientation	4.01	.53	.55 ***	.32 ***	.27 ***	.37 ***	.14 *	.07	*.92*			
8. Trait Conflict Avoidance	3.40	.88	.08	-.01	.00	-.04	.06	.28 ***	-.10	*.92*		
9. Task Interdependance	3.49	.64	.29 ***	.22 ***	.31 ***	.31 ***	.08	.10	.35 ***	-.11	*.84*	
10. Subordinate Task Performance	4.16	.69	.41 ***	.57 ***	.51 ***	.10	.26 ***	.00	.32 ***	-.07	.34 ***	
11. Subordinate Mental Health Diagnosis	.12	.32	.02	-.15 *	-.01	.12	-.18 **	-.02	-.04	.10	.03	.10

Note. $N = 229$. Alpha coefficients are italicized and presented on the diagonal. Subordinate mental health diagnosis was coded as 0 = not aware of any diagnosis, 1 = aware of a diagnosis. * $p < .05$, ** $p < .01$, *** $p < .001$.

Figure B.1

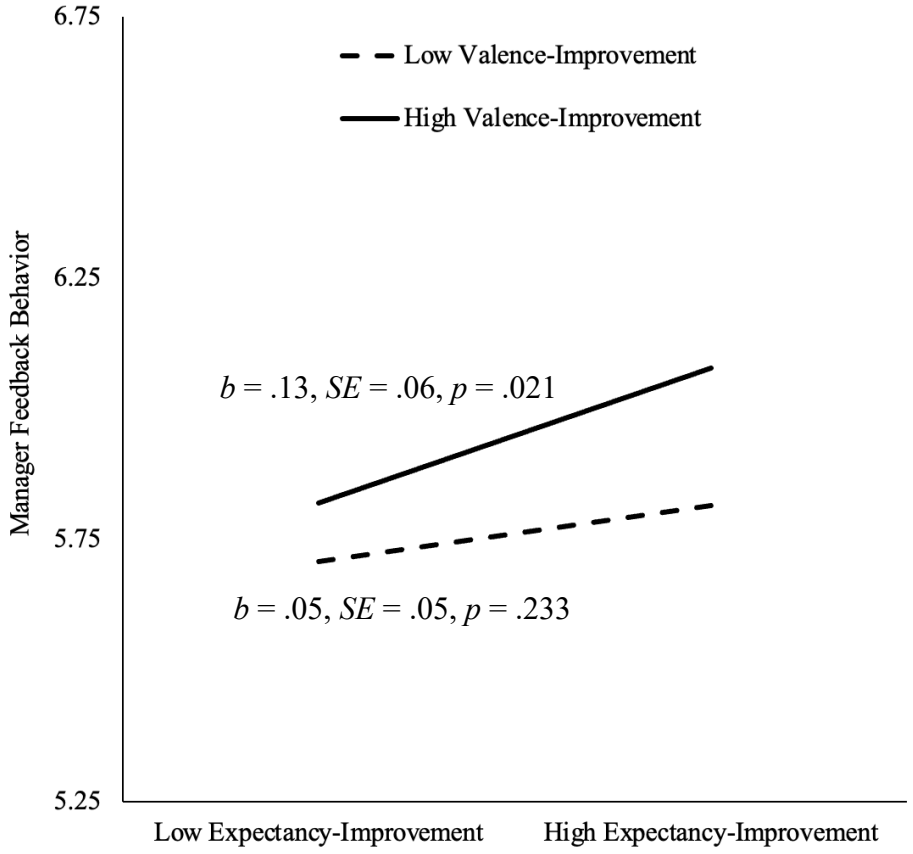
Essay 2, Study 1 Control Variable Model



Note. $N = 229$. Dashed paths are new to this model, solid paths are included in the revised model from the manuscript. Standard errors are contained in paratheses. *RMSEA* = .059, *CFI* = .942, *SRMR* = .067.

Figure B.2

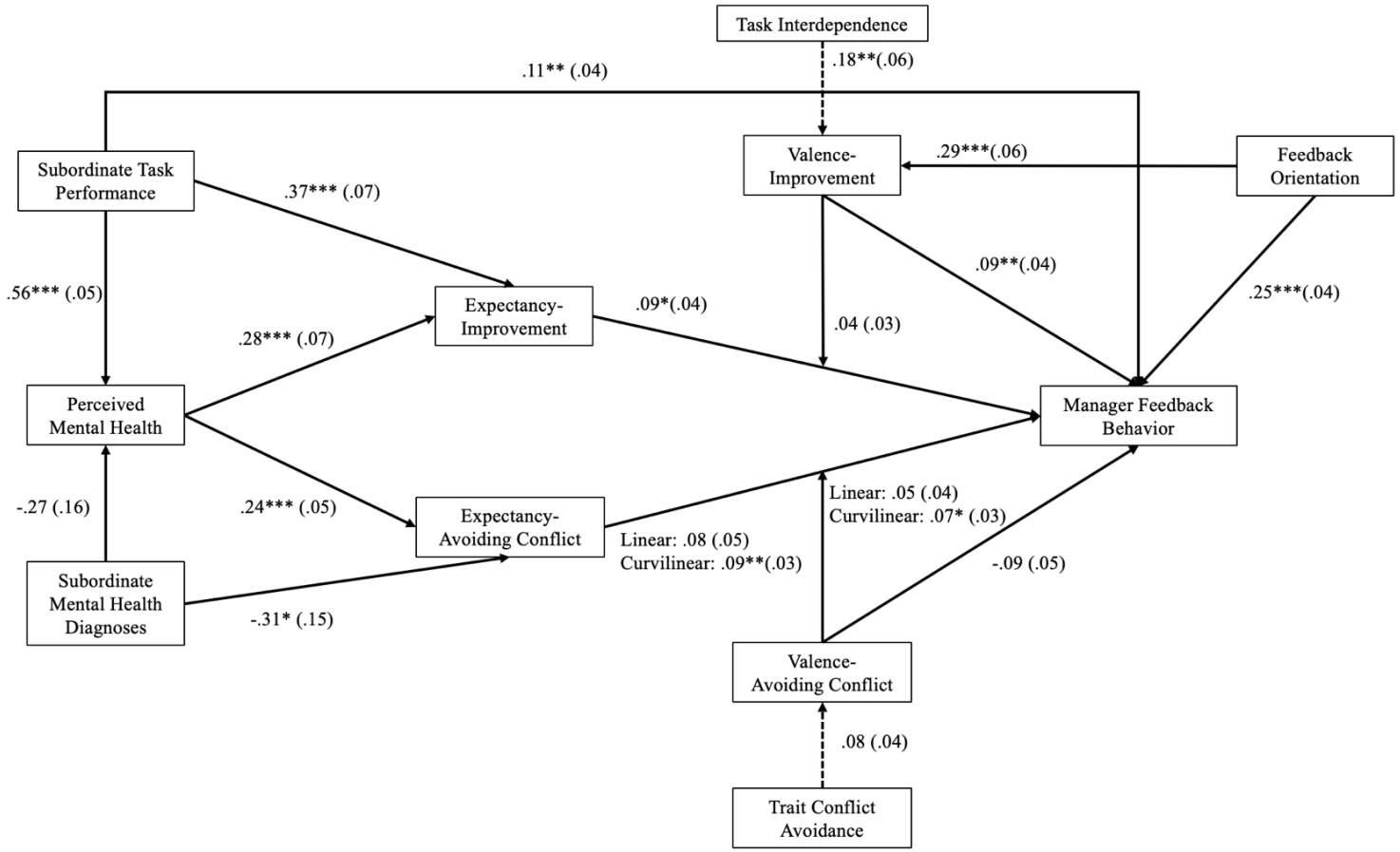
Essay 2, Study 1 Control Variable Model: Pattern of Results for the Interaction of Expectancy-Improvement and Valence-Improvement in Predicting Manager Feedback Behavior



Note. $N = 229$.

Figure B.3

Essay 2, Study 1 Distal Valence Predictor Model



Note. N = 229. Dashed paths are new to this model, solid paths are included in the control variable model. Standard errors are contained in paratheses. *RMSEA* = .067, *CFI* = .921, *SRMR* = .074.

Appendix C: Essay 2, Study 2 Supplemental Analyses

We also collected subordinate task performance and manager awareness of mental health diagnosis for each subordinate in Study 2 to be used as control variables. However, we do not present these results in the manuscript for several reasons. First, we note that our measure of subordinate performance is not objective; rather, it is the subjective rating of the subordinate's performance by the manager. Subjective ratings of performance have been shown to have low reliability and validity, with large portions of the variance in performance ratings tied to factors other than the exhibited performance of the employee who is being rated (see Murphy, 2020, for a review). That is, ratings of performance are prone to contamination. Given the subjective ratings of performance in this study were obtained from the same source (i.e., the manager) as the ratings of perceived mental health, it is likely that the two measures cannot be fully disentangled. Moreover, there is evidence to suggest that people with mental illnesses exhibit worse work performance than those without mental illnesses (Lipskaya-Velikovsky et al., 2019). Therefore, we feel it is inappropriate to partition out variance associated with performance ratings from the variance in perceived mental health. However, we nonetheless present these results for full transparency.

Additional Measures

Subordinate task performance and manager awareness of mental health diagnosis were captured using the same measures as in Study 1.

Analysis Plan

In addition to all hypothesized paths from the manuscript, we included two control variables in our model. Specifically, we allowed subordinate task performance to predict

perceived mental health, manager feedback behavior, and expectancy of improvement. We included these paths because subordinate performance is likely a mental health indicator to managers, may impact the extent to which a manager feels that a subordinate is capable of performance improvement, and may factor into managers' effort allocation decisions when it comes to feedback behavior. We allowed subordinate mental health diagnosis to predict perceived mental health, as managers likely take diagnoses into account when forming an overall impression of subordinates' general mental health. Additionally, subordinate mental health diagnosis was allowed to predict expectancy of avoiding conflict as awareness of a diagnosis may directly impact expectancy of avoiding conflict.

Results

Means, standard deviations, and correlations with the control variables are presented in Table C.2. We note the high correlation between perceived mental health and manager ratings of subordinate task performance (r_{within} = .61, p < .001; $r_{between}$ = .58, p < .001), providing support for our argument that perceived mental health of a subordinate was likely entangled with the performance ratings that a manager assigned to a subordinate.

The specified model fit the data well, *RMSEA* = .054, *CFI* = .945, *SRMR* = .051 (see Figure C.4).

H1-H5. When including the control variables, we no longer find a positive relationship between perceived mental health and expectancy of improvement (H1) (see Figure C.4). However, the positive relationship between expectancy of improvement and manager feedback behavior remains significant, providing support for H2. With regard to

H3, the indirect effect of perceived mental health on manager feedback behavior via expectancy of improvement is not significant when including performance as a control, *b* = .010, 95% CI [-.003, .026]. As in the hypothesized model, we found no support for H4 or H5 in the control variable model, given that there was no interaction between expectancy of improvement and valence of improvement in predicting manager feedback behavior.

H6-H8, RQ1. Support for H6-H8 and findings relative to the research question remain unchanged relative to the hypothesized model when including control variables. Additionally, there remained no indirect effect of perceived mental health on manager feedback behavior via expectancy of avoiding conflict in the model with control variables, *b* = .007, 95% CI [-.006, .021].

Discussion

Unlike in Study 1, including manager ratings of subordinate performance did alter the results of Study 2. Specifically, the relationship between perceived mental health and expectancy of improvement is no longer significant when subordinate performance is included in the model. Ratings of subordinate performance predicts both perceived mental health and expectancy of improvement. However, we argue that partitioning out the variance associated with perceptions of subordinate performance is inappropriate, as these ratings were likely affected by managers' perceptions of their subordinates' mental health. Thus, we retain the model without these control variables in the manuscript.

Table C.2

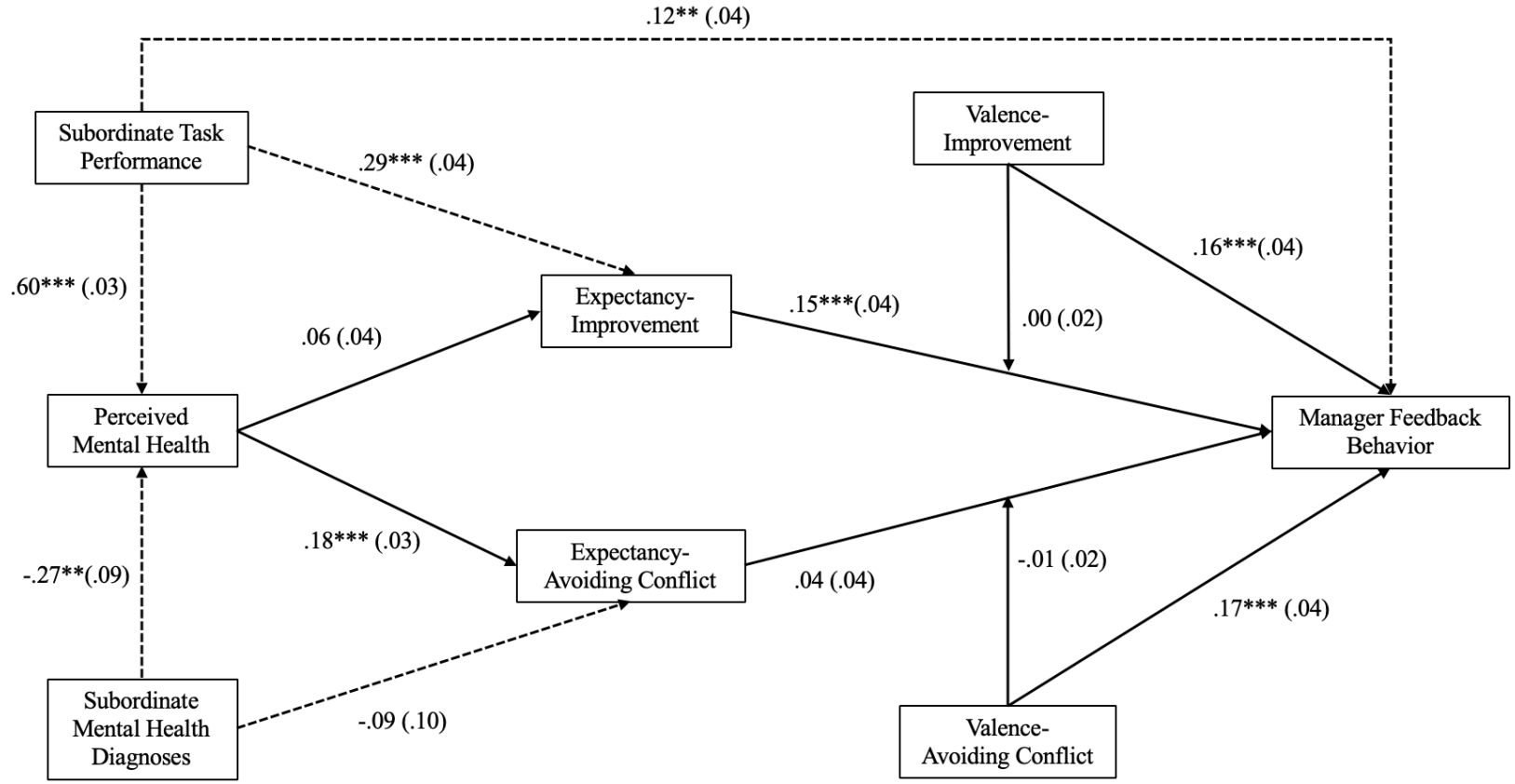
Essay 2, Study 2 Means, Standard Deviations, and Correlations with Control Variables

	M	*SD(B)*	*SD(W)*	*ICC*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*
1. Manager Feedback Behavior	6.00	.54	.30	.67	-	.47 ***	.36 ***	.36 ***	.10	.05	.33 ***	-.08 *
2. Perceived Mental Health	5.62	.65	.77	.22	.11 **	-	.41 ***	.21 **	.19 **	.09	.58 ***	-.17 ***
3. Expectancy-Improvement	7.00	1.82	1.64	.40	.25 ***	.15 ***	-	.69 ***	.16 *	.16 *	.25 ***	.03
4. Valence-Improvement	6.69	2.02	1.60	.48	.20 ***	-.19 ***	.38 ***	-	.04	.26 ***	-.03	.02
5. Expectancy-Avoiding Conflict	6.41	2.22	1.98	.41	.13 ***	.16 ***	.06 †	-.03	-	.62 ***	.18 ***	.04
6. Valence-Avoiding Conflict	5.12	2.76	1.77	.61	.19 ***	-.08 *	.00	.06 †	.43 ***	-	.00	.07 *
7. Subordinate Task Performance	4.15	.45	.52	.25	.12 ***	.61 ***	.25 ***	-.18 ***	.11 **	-.09 *	-	-.24 ***
8. Mental Health Diagnosis	.12	.21	.25	.22	.13 ***	-.18 ***	.05	.09 *	-.05	.04	-.11 **	-

Note. Within-subject correlations are shown below the diagonal (800 observations). Scores were centered at each participant's mean to compute within-subject correlations. Between-subject correlations are shown above the diagonal (200 individuals). Scores were averaged within each participant to compute between-subject correlations. Mental health diagnosis was coded as 1 = yes, 0 = no. † $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

Figure C.4

Essay 2, Study 2 Control Variable Model



Note. n = 800. All continuous variables have been within-person centered. Standard errors are contained in paratheses. Dashed paths belong to control variables, solid paths are from the hypothesized model. *RMSEA* = .054, *CFI* = .945, *SRMR* = .051.