The Effectiveness of Negative Feedback from Supervisors: Cognitive and Affective Perspectives

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Statement of Originality

This thesis is being submitted to Macquarie University and Renmin University of China in accordance with the Cotutelle agreement dated 01/07/2018.

To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made in the thesis itself.

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Abstract

Negative feedback has been a conundrum for a long time. Despite the necessity of negative feedback to correct behavior and improve performance, accumulating research on the effectiveness of negative feedback demonstrates unclear and contradictory findings. To address this gap, this thesis primarily aims to investigate *how* negative feedback impacts on employees' work attitudes and behaviors. Guided by the framework of the cognitive-affective processing system (CAPS), three empirical studies examine the cognitive process, the affective process, and the two processes jointly. The studies explore the boundary conditions to elaborate *when* these processes are more likely or less likely to occur. As a whole, the thesis contributes to a more complete and nuanced understanding of the precise nature of negative feedback.

The primary objective of Study 1 was to examine the role of employees' cognitive interpretations (i.e., feedback motive attributions) in transmitting the effects of negative feedback on their motivation to learn. We proposed that supervisor negative feedback and employee core self-evaluation (CSE) are interactively related to the attribution of feedback. We tested our hypotheses using three-wave, time-lagged survey data from a general sample of 370 employees in the United States and a contextual sample of 302 hospital nurses in China. The results suggest that supervisor negative feedback has a stronger relationship with external attribution when CSE is higher, and a stronger relationship with internal attribution when CSE is lower. External and internal attributions respectively enhance and impair employee motivation to learn.

Study 2 drew upon affective events theory to further validate the affective process of negative feedback. We proposed a model where, at the within-person level, negative feedback from supervisors on a day-to-day basis leads to employees' feeling shame, which has further associations with emotional exhaustion and performance. We used twice-daily

diary data from 119 full-time employees across five consecutive working days to test the hypotheses. The results suggest that shame increases an employee's emotional exhaustion at the end of that workday, while improving their next-day in-role and extra-role performance. Further, individual-level leader-member exchange (LMX) moderates the relationship between negative feedback and shame, with the relationship being stronger when there is high LMX.

Finally, Study 3 developed a dual-pathway model combining cognitive and affective perspectives to examine the effects of supervisor negative feedback. We collected data from 220 employees of a Chinese manufacturing enterprise at two time points. The results suggest that organization-based self-esteem mediates the negative effects of supervisor negative feedback on employees' feedback-seeking behavior, while frustration mediates its positive effect on feedback-avoiding behavior. Leader-member exchange weakens the negative effects of supervisor negative feedback on employees' organization-based self-esteem, while strengthening the positive relationship between supervisor negative feedback and frustration.

Considered as a whole, by focusing on cognitive and affective processes the thesis contributes to a deeper understanding of the effectiveness of negative feedback. The findings further disentangle the current limited and inconsistent understanding of negative feedback effectiveness. Theoretical and practical implications and directions for future research are provided.

Publications

This thesis consists of three distinct studies, each constituting a separate chapter of this thesis. All three studies have been prepared for submission to peer-reviewed journals, as detailed below.

Xing, L., Sun, J., & Jepsen, D. (*second revise and resubmit*). Supervisor negative feedback and employee motivation to learn: A motive attribution perspective. *Human Relations*. (Chapter 2)

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Xing, L., Sun, J., & Jepsen, D. (*first revise and resubmit*). "How I think" versus "how I feel": The influences of supervisor negative feedback on employee's feedback-seeking and feedback-avoiding behavior. *Human Resource Management*. (Chapter 4)

List of Tables

Chapter 1

General Introduction

"*Advice is least heeded when most needed.*"— Chinese proverb

1. Significance of negative feedback and its effectiveness

People need knowledge of their performance to maintain their motivation to work and to improve their performance over time. Feedback functions across management practices such as performance appraisal, training and development, setting goals, and building teams. Giving feedback refers to "the activity of providing information to staff members about their performance on job expectations" (Hillman, Schwandt, & Bartz, 1990, p. 20). That information keeps employees appraised of organizational expectations and makes feedback an important tool in the organizational context. Giving subordinates feedback about their performance is widely acknowledged as an essential element of a supervisor's responsibilities (Leung, Su, & Morris, 2001). By providing feedback, supervisors are able to inform their subordinates about how they can improve their performance (London & Smither, 2002). However, although feedback has a decidedly positive orientation, it is often still a sensitive issue in organizations. The meta-analysis by Kluger and DeNisi (1996) on feedback effectiveness showed that feedback led to a decline in performance in 38% of cases. Another meta-analysis concerning multi-source feedback and subsequent performance improvement also revealed only a very small effect (Smither, London, & Reilly, 2005).

This variation in effectiveness is also seen for a specific type of feedback, negative feedback, which is the activity of informing individuals they have not met standards or goals (Ilies & Judge, 2005). Compared to positive feedback, negative feedback is primarily used by supervisors to correct employees' behaviors. Managers usually prefer negative feedback to positive feedback in their daily work, since they perceive themselves as more effective when offering criticism (Zenger & Folkman, 2017). Negative feedback and its influence have attracted considerable attention, but it has been a puzzle for both researchers and practitioners for a long time (see reviews by Audia and Locke, 2003; O'Malley and Gregory, 2011; Kluger

and DeNisi, 1996). Theoretically speaking, negative feedback signals a lack of progress towards goals and more effort is needed (Schroeder & Fishback, 2015). It highlights for employees the disparities between performance and goals (Carver & Scheier, 1998; O'Malley & Gregory, 2011), and employees tend to be motivated to devote more effort to recover from poor performance (Podsakoff & Farh, 1989). Further, employees tend to develop self-awareness in order to detect errors, foster self-development, and achieve sustained change and improvement (London, 2003).

However, these arguments have received limited empirical support. Despite there being a need to inform employees about their deficiencies, negative feedback can backfire. For one thing, some supervisors are reluctant to deliver negative feedback to avoid potential conflicts, and thus have trouble dealing with employees' performance problems. Research on the "mum effect", referring to an individual's hesitance to deliver undesirable information (Tesser & Rosen, 1975), suggests that supervisors tend to withhold negative feedback when they are afraid of potential conflicts with employees (Larson, 1984, 1986). Negative feedback is often portrayed as inefficacious at motivating employees since it tends to elicit unfavorable reactions from recipients. Negative feedback generally implies weaknesses, incorrect behaviors, or a lack of success, which can threaten employees' self-esteem and sense of competence. Compared with positive feedback, employees may perceive negative feedback as less accurate and less useful (Brett and Atwater, 2001; Ilgen et al., 1979) and react to negative feedback with more negative emotions (Belschak and Den Hartog, 2009). Employees thus tend to ignore, discredit, and outright reject negative feedback (Audia & Locke, 2003).

These inconsistent arguments primarily indicate negative feedback's complicated influence on employees and highlight a need for a more clear and detailed examination of its effectiveness. In addressing this need, studies of negative feedback not only carry important

theoretical implications in solving the inconsistency, but also practical implications for managers and employees in dealing with feedback. Indeed, London (2003) pointed out that researchers have devoted considerable attention to formal performance management processes, and relatively less attention to feedback use and delivery. This thesis draws from a systematic framework to reveal a more nuanced view of such feedback processes. The research question is focused on *how* and *when* negative feedback leads to variation in employee responses.

This introductory chapter consists of five parts. First, the importance of studying the effectiveness of negative feedback has just been addressed. Second, a literature review of empirical studies that inform the thesis is provided. This is followed by a synthesis of what we already know and what we do not know. Next, the philosophical research position taken in this thesis is clarified. Finally, there is an overview of the chapters in this thesis.

2. Review of related research literature

2.1 Formal and informal negative feedback

Negative feedback has long been a topic of interest in fields such as education, mathematics, engineering, and healthcare. In organizations, negative feedback is characterized as information provided by others regarding one's performance compared to an absolute or relative standard (Zhou, 1998). Feedback can be formal or informal. Formal feedback is often delivered by annual or semi-annual reviews (Andiola, 2014). Most research has investigated formal negative feedback, such as that received at a developmental assessment center (Dimotakis, Mitchel, & Maurer, 2017; Fletcher & Kerslake, 1992; van Emmerik, Bakker, & Eeuwema, 2007), or during performance appraisal (Culbertson, Henning, & Payne, 2013; Wang, Burlacu, Truxillo, James, & Yao, 2015).

With the research focus primarily on formal feedback, informal feedback in organizations has been largely ignored (Johnson & Connelly, 2014). Unlike a formal

performance review or assessment center feedback, informal feedback is not constrained by standardized processes or norms, but is rather communicated on a day-to-day basis (Fedor, Eder, & Buckley, 1989). Such informal feedback plays a more important role in directing effective behavior and performance in an organization's daily functioning (Pulakos & O'Leary, 2011; Steelman & Rutkowski, 2004). The use of informal feedback is also salient when it comes to specific cultural contexts. For example, informal feedback is particularly common in Chinese organizations, since feedback in China concentrates on both task and daily contextual components (Hempel, 2008). Given the importance of such contexts, an inquiry into the influence of informal negative feedback on Chinese employees is particularly important, and can also inform non-Chinese scholars and practitioners.

2.2 Distal consequences of negative feedback

With regard to the consequences of negative feedback, most research rests upon the arguments that employees first generate feelings and thoughts, through which those employees determine how to respond; for example, whether to modify their work behaviors. Following this logic, we organize this review of the consequences of negative feedback into distal and proximal outcomes: distal outcomes relate to the final performance and performance-related outcomes, while proximal outcomes signify psychological reactions which are relatively immediate, such as emotions and appraisals of negative feedback.

How negative feedback affects employee performance constitutes the central question in negative feedback research. However, the literature is not clear about whether negative feedback increases or decreases performance. Some studies have found that negative feedback can foster performance (Podsakoff & Farh, 1989) while others have found the opposite (Guo et al., 2017). Ilies and colleagues found that negative feedback made participants adjust subsequent performance goals downward (Ilies& Judge, 2005; Ilies, Judge, & Wagner, 2010), an issue which is closely related to performance. With regard to

creative or innovative performance, empirical results are once again mixed, including positive (e.g., Fang, Kim, & Milliken, 2014; He, Yao, Wang, & Caughron, 2016), negative (e.g., Van Dijk & Kluger, 2011; Zhou, 1998), and nonsignificant (e.g., Fodor & Carver, 2000; George & Zhou, 2001) effects. Notably, however, Zhou and van Knippenberg (2018) extended the outcome from individual creativity to team creativity, and found that negative feedback could enhance team creativity in diverse teams. There is evidence suggesting that negative feedback also impacts extra-role performance, decreasing organizational citizenship behavior and increasing counterproductive behavior (Belschak & Den Hartog, 2009).

As well as task performance, several studies have investigated the impact of negative feedback on career outcomes. Dimotakis et al. (2017) found that negative feedback that employees received at an assessment center negatively predicted their career outcomes of being promoted within the organizations. Hu, Hood, and Creed (2018) link negative feedback to individuals' shifting their career goals and career exploration. Besides these two studies, Young, Richard, Moukarzel, Steelman, and Gentry (2017) focused on the outcomes of feedback providers and revealed a positive relationship between negative feedback and a supervisor's promotability.

A number of studies have demonstrated the impact of negative feedback on social behaviors. For example, Johnson and Connelly (2014) investigate employee behavior such as making excuses, apologizing, accepting responsibility, shifting blame, and promising to work harder after receiving negative feedback. Li, Liu, Shang, and Xi (2014) found negative feedback impaired knowledge-sharing behavior through fostering a prevention focus among employees, that is, their tendency to avoid negative outcomes.

2.3 Proximal consequences as mediating mechanisms

The mixed findings on the distal consequences of negative feedback may be due to the variation in employees' thoughts and feelings after negative feedback. For example, research

from an optimistic point of view argues that negative feedback reflects unmet goals and so leads to increased motivation and efforts to decrease the discrepancy between the feedback and the standard. Through evaluating behaviors relative to goals, feedback helps to reduce and correct poor behaviors, while guiding and reinforcing good behaviors (Carver & Scheier, 1998). In contrast, negative feedback can pose a threat to recipients' self-image and status in others' eyes, which disengages them from attempts to accept feedback and improve their performance (Kluger & DeNisi, 1996). Although those mechanisms have provided valuable insights, they have not comprehensively addressed the variance in response to negative feedback. Therefore, it is necessary to further disentangle the underlying mechanism of negative feedback. The following subsection draws from a theoretical model to review the proximal consequences of negative feedback.

2.3.1 Overarching cognitive-affective processing system (CAPS) framework

The cognitive-affective processing system (CAPS) framework is a broad theoretical model concerned with the self-regulation process in response to events in the workplace (Mischel & Shoda, 1995, 1998). The central tenet of this framework is that after encountering a specific event such as supervisor negative feedback, employees appraise their levels of personal resources. In their appraisals, employees access "cognitive-affective units" or mental representations to help them respond to events. These units include *encodings*, which reflect people's fundamental experience, *expectations and beliefs* about self-efficacy and outcomes, *affects*, *goals and values*, and *self-regulatory plans*.

Combined with the feedback context, the CAPS framework recognizes the roles of cognition and affect in understanding individuals' responses to feedback (Ilies et al., 2010). Cognitive and affective processes are not independent, but rather interconnected. For example, individuals can experience affective reactions when appraising whether an event is stressful or not (Lazarus, 2006). Affective experience can also drive the conscious attention

and guide the cognitive processes in making appraisals and judgments (Seo, Barrett, & Bartunek, 2004). These two processes may interact with or influence each other to decide employees' distal outcomes. The following subsections look at each in turn to review the underlying mechanisms of negative feedback.

2.3.2 Cognitive perspective

The influences of negative feedback have mostly been investigated from a cognitive perspective, which involves employees' thought processes and components such as their perceptions, beliefs, and goals. This perspective discusses employees' "cold" rather than "hot" processes in dealing with negative feedback. First, feedback research has been focused on the encoding process, which refers to the "construal and interpretations of the situation" (Mischel & Shoda, 2010, p. 150). Employees perceive and interpret negative feedback during this process. However, these studies also demonstrate conflicting results for this process. For example, Brett and Atwater (2001) found that recipients of negative feedback perceive the feedback to be less accurate and less useful, while Zingoni and Byron (2017) suggested that individuals may find negative feedback threatening but also valuable, and that it is positively associated with effort and learning. Such inconsistent results indicate that complex cognitive processes underlie negative feedback. That is, employees may form different appraisals for the same type of feedback under different conditions.

In addition, negative feedback can shape employees' expectations and beliefs about themselves and about outcomes. Negative feedback signals a lack of ability and may have negative persuasive effects on expectations of future success. A widely acknowledged mediator underlying the influence of feedback is self-efficacy. Evidence suggests that negative feedback leads to a decrease in employees' improvement self-efficacy (Demotakis et al., 2017; Ilies et al., 2010) and occupational self-efficacy (Hu, Creed, & Hood, 2019). Jawahar and Shabeer (2019) suggested that negative feedback can result in career goal

disengagement. From the attribution perspective, researchers have argued that employees will infer the reasons for their poor performance. Employees are willing to increase their efforts only when they attribute their poor performance to controllable internal or external factors (Ilgen & Davis, 2000).

Negative feedback can also shape employees' willingness and ability to plan their activity. For example, Li et al. (2014) found that negative feedback promotes employees' prevention focus. At the team level, Hoever et al. (2018) found that negative feedback can guide teams' attention and efforts to external, novel information, which can enhance team creativity.

2.3.3 Affective perspective

Research largely supports the idea that negative feedback is an emotionally challenging event that generates negative affect in recipients. Employees perceive that negative feedback interferes with their personal goals, such as compensation and career goals. Such incongruence between the stimulus and goals elicits affective and emotional reactions (Alam & Singh, 2019; O'Malley & Gregory, 2011). Research from this perspective can be classified in two categories, depending on whether the focus is on general affect or discrete emotions.

The first category concerns general affect after negative feedback. According to the circumplex model of affect (Russell, 1980), valence and arousal dimensions constitute the basis for each affective state. To the best of our knowledge, there is only one study on the arousal dimension of affect after negative feedback (Kluger, Lewinsohn, & Aiello, 1994), and its results suggest that along with changing the feedback sign from negative to positive, arousal showed a U-shaped form. Most research focuses on the valence dimension and negative affect has been widely investigated as the mediator in linking negative feedback and employees' attitudes and behaviors. Negative feedback evokes employees' negative affect (Ilies, De Pater, & Judge, 2007; Hu, Chen, & Tian, 2016), which in turn leads to unfavorable

outcomes such as a decreased evaluation of feedback effectiveness (Young et al., 2017), self-efficacy, subsequent goal (Ilies et al., 2010), and affective commitment, and an increased turnover intention (Belschak & Den Hartog, 2009). These unfavorable outcomes tend to further hinder employees' motivations to improve their performance at work.

The second category of research on emotional responses to negative feedback concerns the role of discrete emotions. However, compared to the literature on general affect, little has been done to examine discrete emotional processes, although some research has examined the specific emotions of anger, guilt, and sadness. Negative feedback was found to elicit employees' anger, which leads to negative social behaviors, unfavorable evaluations of the supervisor, and decreased acceptance of such feedback (Johnson & Connelly, 2014; Niemann, Wisse, Rus, Van Yperen, & Sassenberg, 2014). Further, elicited guilt was found to enhance positive social behaviors and evaluations of the supervisor (Johnson & Connelly, 2014), while a recent study suggested that negative feedback increases sadness, which in turn leads to low performance on future tasks (Motro, Comer, & Lenaghan, 2020).

2.4 Boundary conditions of negative feedback processes

Given the mixed findings on the impacts of negative feedback, a major concern is to investigate contingent factors, addressing when negative feedback is more or less likely to be effective (e.g., Audia & Locke, 2003; O'Malley & Gregory, 2011). The literature reveals the three main contingent factors in negative feedback effectiveness to be the characteristics of the recipient, of the feedback source, and of the feedback and task. This theorization is consistent with the CAPS framework. CAPS assumes that individuals differ in the ease with which cognitive-affective units (CAUs) are activated, as well as organizing relationships among CAUs (Mischel & Shoda, 2008). Therefore, individual differences between recipients could moderate the influences of negative feedback (Zimmerman, Swider, Woo, & Allen, 2016). According to CAPS, the encoding process filters the objective features of the situation

into subjective impression and other CAUs. Feedback and task characteristics, as well as supervisor characteristics, constitute the situation along with the feedback, so may impact the encoding process that transmits negative feedback into cognitive and affective reactions.

2.4.1 Recipient characteristics

Individual differences are one of the most important contingencies in the effectiveness of negative feedback. Negative feedback effectiveness varies because individuals have different interpretations of such feedback. Employees are adaptive to negative feedback when they appraise feedback as an opportunity for development, and maladaptive when they view the feedback as a threat. For example, for employees with a learning goal orientation or holding incremental theory, negative feedback is more likely to be perceived as an opportunity for improvement (Brett & Atwater, 2001; Culbertson, Henning, & Payne, 2013; Dimotakis et al., 2017). Likewise, individuals who frequently reappraise experiences are likely to frame negative feedback in a positive light, and thus experience little negative affect and increase their subsequent performance (Raftery & Bizer, 2009; Young et al., 2017). More general feedback orientation, which reflects "an individual's overall receptivity to feedback" (London & Smith, 2002, p. 81), is found to enhance the effectiveness of negative feedback (Wang et al., 2015).

Individuals' sensitivity to punishments and rewards is another significant boundary condition of negative feedback effectiveness. Individuals with a prevention focus tend to avoid failure and loss, and therefore have a higher motivation to exert effort after negative feedback (Van Dijk & Kluger, 2004). Individuals with a highly sensitive behavioral inhibition system tend to experience stronger negative emotions after negative feedback than those with a less sensitive behavioral inhibition system (Ilies et al., 2010).

2.4.2 Feedback source characteristics

The characteristics of the feedback source, usually a supervisor, can be important in determining how employees understand and respond to such feedback. The credibility of the feedback source, for example, can inform employees of the accuracy of the feedback, and therefore enhance feedback effectiveness. Feedback source credibility leads to satisfaction, employees being motivated to use the feedback, and actual performance improvements after negative feedback (Podsakoff & Farh, 1998; Steelman & Rutkowski, 2004). Consistent with these results, a supervisor's expert and referent power positively predict performance improvement (Fedor, Davis, Maslyn, & Mathieson, 2001).

The manner in which supervisors deliver feedback also impacts on the effectiveness of negative feedback. Supervisors engaging in a constructive and helpful manner when conveying negative feedback can facilitate numerous positive outcomes (O'Malley & Gregory, 2011). For example, employees are more motivated to improve performance when negative feedback is delivered in a considerate manner (Steelman & Rutkowski, 2004). Managerial accounts, or "the use of language to interactionally construct preferred meanings for problematic events" (Buttny, 1993, p. 21), can influence employees' negative reactions towards negative feedback. Concessions, excuses, and justifications made by supervisors reduce the detrimental effects, while refusal such as mystification or empty explanation does not influence employees' reactions (Tata, 2002).

The emotion displayed in communicating negative feedback also matters. A display of empathic concern along with negative feedback communicates the supervisor's personal care for and interest in the employee, which will reduce the threat associated with negative feedback and lessen its potential negative impacts (Young et al., 2017). Supervisors' expression of disappointment along with negative feedback evokes recipients' feelings of responsibility, which is likely to result in beneficial attitudes and behaviors. Conversely, an

expression of anger is likely to elicit reciprocal anger and have negative ramifications (Johnson & Connelly, 2014).

2.4.3 Feedback and task characteristics

The content and quality of the feedback have an impact on reactions towards negative feedback. Feedback quality can lessen the negative influence of negative feedback on satisfaction and motivation (Steelman & Rutkowski, 2004). With regard to feedback content, Hu et al. (2019) found that more negative feedback on goal progress was related to less career exploration and less goal shifting, while negative feedback on goal suitability and a need for improvement was associated with higher career goal shifting.

Further, task characteristics have been demonstrated to moderate the effects of feedback on motivation and performance. Zhou (1998) explored the role of task autonomy and found negative feedback in a controlling style when there is low task autonomy leads to less creative performance. Vancouver and Tischner (2004) found that when cognitive resources were required to perform a task, negative feedback will impair its performance; otherwise, negative feedback can weakly improve performance. Van Dijk and Kluger (2011) continued to explore the role of task type by considering the motivational demands of tasks. Tasks requiring vigilance and attention to detail tend to evoke a prevention focus from employees, and so negative feedback could enhance their motivation to exert effort.

3. Literature review synthesis

The literature review reveals promising empirical developments in the study of negative feedback. The early work of Kluger and DeNisi (1996) concluded that feedback decreased performance more than a third of the time, for both positive and negative feedback. Since then, researchers have investigated the effectiveness of negative feedback. Review and conceptual articles provide a useful roadmap for examining the influences of negative feedback (e.g., Alam & Singh, 2019; Audia & Locke, 2003; Ilgen & Davis, 2000; O'Malley

& Gregory, 2011). Research to date has validated the role of negative feedback in shaping employees' attitudes and behaviors while highlighting the importance of continuing to advance our knowledge about the potential mechanisms and boundary conditions of negative feedback influences.

Based on the literature review, a number of knowledge gaps still need to be addressed to broaden our understanding of the effectiveness of negative feedback. First, current research mostly conceptualizes negative feedback as an episode in an event, which carries the formal information for a specific task. That is, researchers emphasize regular performance feedback during formal performance appraisal (e.g., Wang et al., 2015) and feedback in developmental assessment centers (e.g., Dimotakis et al., 2017), largely ignoring continuous, frequent, real-time informal feedback in the organizational context. This constitutes a conspicuous gap, since informal feedback is more common and influential, and prominent organizations such as Accenture and Microsoft have shifted their emphasis to regular informal supervisor feedback in recent years (Adler et al., 2016; Buckingham & Goodall, 2015). Examining the process of informal negative feedback can contribute to a better understanding of its effects, which has both theoretical and practical implications.

Second, cognitive processes have been operationalized in different ways, without providing a systematic and consistent theoretical lens. For example, studies suggest negative feedback leads to perceptions that feedback is not useful or accurate (Brett & Atwater, 2001; Wang et al., 2015), a consequence of perceived value and perceived threat (Zingoni & Byron, 2017), and less self-efficacy (Ilies et al., 2010). However those studies did not provide an overarching framework for the choice of these cognitive variables, and may thus create confusion about what cognitive processes employees may experience and why. Understanding reactions to feedback requires an examination of how employees perceive and appraise negative feedback (Dimotakis et al., 2017; Zingoni & Byron, 2017). Like other

organizational practices, supervisor negative feedback constitutes an important characteristic of the work environment. Employees tend to make inferences from supervisor negative feedback as a way to make sense of their work environment (Van De Voorde & Beijer, 2015). However, there is still a limited understanding of how employees attach meaning to negative feedback and how these meanings shape their reactions (Hempel, 2008).

Third, the relationship between feedback and affect has attracted increasing attention in recent years. Research has generally shown that negative feedback comes with employee's increased negative affect, which in turn leads to unfavorable outcomes (e.g., Belschak & Den Hartog, 2009; Ilies & Judge, 2005; Young et al., 2017). However, the aggregation of discrete emotions into general affect may depress the specific utility of discrete emotions. Given that discrete emotions have a distinct motivational and behavioral profile that goes beyond simple positive and negative valence (Lazarus & Cohen-Charash, 2001), this constitutes an important gap in feedback literature. Indeed, there are increasing calls for more research in discrete emotions instead of general affect (e.g., Ashkanasy & Dorris, 2017; Gooty, Gavin, & Ashkanasy, 2009; Lindebaum & Jordan, 2012). Practically, although it may be unrealistic to expect employees to have positive affect after criticism, organizations and managers can still shape employees' discrete negative emotions to reduce undesirable effects.

Fourth, there is a lack of research combining cognitive and affective perspectives to investigate the effectiveness of negative feedback. On one hand, negative feedback constitutes a specific situational stimulus. The process through which an individual forms motivation and behavior after feedback is a process of self-regulation (Carver, 2004). The basic feature of self-regulation systems lies in their assumed cognitive-affective framework (Kunda, 1999). Therefore, to fully understand the self-regulation process, it is necessary to understand the cognitive and affective subsystems within this framework (Mischel & Shoda, 2008). On the other hand, there is evidence that cognition and affect have relatively distinct

contributions on different types of work behaviors (e.g., Dionisi & Barling, 2019; Lee & Allen, 2002). That is, some work behaviors are primarily driven by cognitive evaluations, while others are driven by affect (Weiss & Cropanzano, 1996). Combining these two perspectives and investigating their effects on various consequences could further deepen our understanding of the effectiveness of negative feedback.

4. Philosophical research position

The differences between the research paradigms of positivism and constructivism are reflected in three aspects: ontology, epistemology, and methodology (Guba & Lincoln, 1994). First, positivism assumes that a reality exists and can be converged on through research, while constructivism assumes that a reality is constructed in a specific context and needs to be interpreted. Second, positivists base their work on previous literature and test hypotheses in an empirical way to get to the reality. On the contrary, constructivists describe what they see to understand the reality in its unique context. Third, positivists emphasize the use of reliable and valid methods, such as experimental and survey research, while constructivists emphasize the use of methods in a natural context, such as ethnography, grounded theory, and phenomenological research.

This thesis is embedded in the positivist approach, for three reasons. First, the research in this thesis deals with a contingency theory approach, which largely draws upon positivist assumptions of ontology. Second, the research in this thesis draws upon particular theories (e.g., the CAPS framework, attributional perspective, and affective events theory); the theory-testing nature of the thesis matches the approach of positivism. Finally, one of the key focuses of positivism, this thesis investigates the relationships among variables to address research gaps, rather than interpreting the potential meanings of a phenomenon. Therefore, the thesis adopts a positivist approach to address its research questions.

Following positivism, this thesis adopts a quantitative research approach. Specifically, the research method involved the use of field surveys to collect data. Standardized instruments were used to measure constructs at different levels, and data analysis strategies were adopted to identify the relationships among variables. Finally, the findings were drawn based on the statistical results.

5. Overview of the program of research

This program of research primarily aims to broaden our understanding of the effectiveness of negative feedback by examining the underlying mechanisms from different perspectives. We limited our focus to negative feedback from employees' immediate supervisors for two reasons: first, the immediate supervisor is the preferred source of feedback for employees (Kuvaas, Buch, & Dysvik, 2017); and second, immediate supervisors are also the most important source of feedback (London, 2003), serving as the organization's agents and putting performance management into practice. In light of the gaps in the literature, we begin by identifying employees' cognitive interpretations in a theory-driven framework, specifically how these interpretations explain the variation in employees' negative feedback responses (Chapter 2, Study 1). Next, we turn to examining discrete emotions as the underlying mechanism between negative feedback and employee outcomes, where a particular emotion acts as a "double-edged sword" in influencing employees' distinct responses (Chapter 3, Study 2). We then combine cognitive and affective perspectives to investigate the two concurrent states in predicting different outcomes of negative feedback (Chapter 4, Study 3). Indicators of the effectiveness of negative feedback (i.e., the outcomes) in this thesis include employees' motivation, psychological well-being, and work behaviors. The full research model is presented in Figure 1.
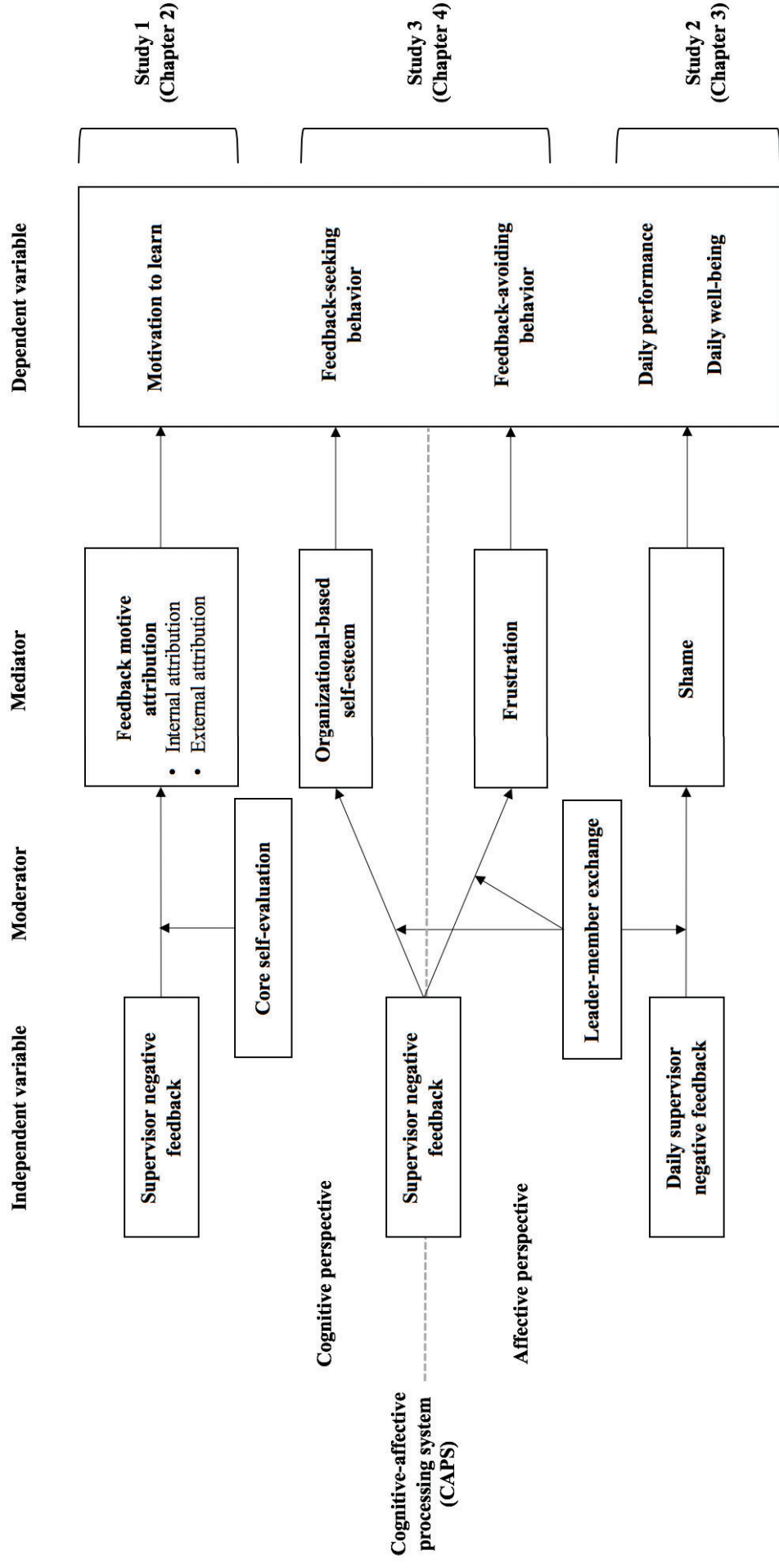
Figure 1. Research model and overview of studies

The PhD thesis consists of five chapters. Chapter 1 (the present chapter) provides the context of the research program, a review of the relevant literature, and a broad overview of the research program. Chapters 2, 3, and 4 each present an empirical paper which focuses on the effectiveness of negative feedback from a different perspective. Following the standard practice for a thesis by publication, the three papers are presented in manuscript format, and each begins with a short introduction and ends with a short conclusion positioning them within the overall thesis. As illustrated in Figure 1, the studies are organized based on the general perspective they take to investigate negative feedback effectiveness. The thesis progresses from a specifically cognitive perspective to a specifically affective perspective, before examining both together. Correspondingly, the focus of the thesis progresses from employees' cognitive responses, to their affective responses, then to the two types of responses simultaneously.

A summary of the research design for each study is presented in Table 1. All instructions and items used in data collection in China were provided in Chinese: since some measures used were originally in English, they were translated into Chinese when required following Brislin's (1980) translation-back translation procedure.

Table 1. Summary of study design

Study	Research context	Sample	Study variables			
			Predictors	Moderators	Mediators	Outcomes
1	US	N = 370	Supervisor negative feedback	Core self-evaluation	Feedback motive attributions	Motivation to learn
	China	N = 329				
2	China	N = 119, 530 pairs of observations	Daily supervisor negative feedback	Leader-member exchange	Shame	Well-being, performance
3	China	N = 220	Supervisor negative feedback	Leader-member exchange	Organization-based self-esteem, frustration	Feedback-seeking behavior, feedback-avoiding behavior

Chapter 2, titled "Supervisor negative feedback and employee motivation to learn: A motive attribution perspective", examines the mediating mechanism of a specific cognitive state (i.e., employees' attribution towards negative feedback) among both US and Chinese employees. This study aims to investigate when supervisor negative feedback evokes distinct attributions, and how these attributions influence employees' motivation to improve. By integrating employees' core self-evaluations as the boundary condition, this study confirms that individual differences determine the attributions and motivational responses towards negative feedback.

Chapter 3, "Feeling of shame: The short-term effects of supervisor negative feedback on employee well-being and performance", examines the mediating mechanism of a specific affective state (i.e., the emotion of shame) among Chinese employees. This study aims to examine the role of shame in the within-person relationship between supervisor negative feedback and the concurrent outcomes of employees' well-being and work performance. Further, leader-member exchange was used as a moderator to reveal when these effects are more likely or less likely to emerge. The findings confirm negative feedback's double-edged effects through shame, with dyad relationship quality as the contingency.

Chapter 4 is titled "'How I think' versus 'how I feel': The effects of supervisor negative feedback on employees' feedback-seeking and feedback-avoiding behaviors" and presents an empirical test of a mediated model of both cognitive and affective states among Chinese employees. In line with the propositions of CAPS, it tests an integrative process model by examining employees' organization-based self-esteem and frustration as two underlying mechanisms, as well as leader-member exchange as the boundary condition. The findings of this study reveal the different roles of cognitive and affective states in predicting feedback management behaviors, as well as the role of dyad relationship quality in shaping these two mechanisms.

Finally, Chapter 5 provides a general discussion of the three studies and summarizes the main findings of the research. Implications for feedback theory and practice are offered and future research directions are suggested in this final chapter. A complete list of references in this thesis is provided at the end of the thesis.

Given this is a thesis by publication, the studies are formatted differently depending on the submission guidelines of the target journals. Tables and figures have been included in their place in the text of each chapter for ease of reading. In addition, there are some repetitions and overlaps in terms of the background and the literature review across the introductory chapter and the various studies in Chapters 2 to 4, the key findings and discussion across the individual studies and the concluding general discussion chapter. The complete set of references finishes the thesis. Appendix A, B, and C list the measures for each study. Appendix D presents the Ethics Approval Letter for this thesis project.

6. References

Adler, S., Campion, M., Colquitt, A., Grubb, A., Murphy, K., Ollander-Krane, R., & Pulakos, E. D. (2016). Getting rid of performance ratings: Genius or folly? A debate. *Industrial and Organizational Psychology: Perspectives on Science and Practice, 9*(2), 219–252.

Alam, M., & Singh, P. (2019). Performance feedback interviews as affective events: An exploration of the impact of emotion regulation of negative performance feedback on supervisor–employee dyads. *Human Resource Management Review*. doi: 10.1016/j.hrmr.2019.100740.

Andiola, L. M. (2014). Performance feedback in the audit environment: A review and synthesis of research on the behavioral effects. *Journal of Accounting Literature*, *33*(1-2), 1−36.

Ashkanasy, N. M., & Dorris, A. D. (2017). Emotions in the workplace. *Annual Review of Organizational Psychology and Organizational Behavior*, *4*, 67–90.

Audia, P. G., & Locke, E. A. (2003). Benefiting from negative feedback. *Human Resource Management Review*, *13*(4), 631−646.

Belschak, F. D., & Den Hartog, D. N. (2009). Consequences of positive and negative feedback: The impact on emotions and extra-role behaviors. *Applied Psychology*, *58*(2), 274−303.

Brett, J. F., & Atwater, L. E. (2001). 360° feedback: Accuracy, reactions, and perceptions of usefulness. *Journal of Applied Psychology*, *86*(5), 930−942.

Brislin, R. W. (1980). Translation and content analysis of oral and written materials. In H. Triandis & J. W. Berry (Eds.), *Handbook of cross-cultural psychology* (Vol. 2, pp. 389–444). Boston, MA: Allyn & Bacon.

Buckingham, M., & Goodall, A. (2015). Reinventing performance management. *Harvard Business Review*, *93*(4), 40−50.

Buttny, R. (1993). *Social accountability in communication*. London: Sage.

Carver, C. S. (2004). Self-regulation of action and affect. In R. F. Baumeister & K. D. Vohs (Eds.), *Handbook of self-regulation: Research, theory, and applications* (pp. 13−39). New York: The Guilford Press.

Carver, C. S., & Scheier, M. F. (1998). *On the self-regulation of behavior*. New York: Cambridge University Press.

Culbertson, S. S., Henning, J. B., & Payne, S. C. (2013). Performance appraisal satisfaction: The role of feedback and goal orientation. *Journal of Personnel Psychology*, *12*(4), 189−195.

Dimotakis, N., Mitchell, D., & Maurer, T. (2017). Positive and negative assessment center feedback in relation to development self-efficacy, feedback seeking, and promotion. *Journal of Applied Psychology*, *102*(11), 1514−1527.

Dionisi, A. M., & Barling, J. (2019). What happens at home doesn't stay at home: The role of family and romantic partner conflict in destructive leadership. *Stress and Health*, *35*(3), 304−317.

Fang, C., Kim, J. H., & Milliken, F. J. (2014). When bad news is sugarcoated: Information distortion, organizational search and the behavioral theory of the firm. *Strategic Management Journal*, *35*(8), 1186−1201.

Fedor, D. B., Davis, W. D., Maslyn, J. M., & Mathieson, K. (2001). Performance improvement efforts in response to negative feedback: The roles of source power and recipient self-esteem. *Journal of Management*, *27*(1), 79−97.

Fedor, D. B., Eder, R. W., & Buckley, M. R. (1989). The contributory effects of supervisor intentions on subordinate feedback responses. *Organizational Behavior and Human Decision Processes*, *44*(3), 396−414.

Fletcher, C., & Kerslake, C. (1992). The impact of assessment centers and their outcomes on participants' self-assessments. *Human Relations*, *45*(3), 281−289.

Fodor, E. M., & Carver, R. A. (2000). Achievement and power motives, performance feedback, and creativity. *Journal of Research in Personality*, *34*(4), 380−396.

George, J. M., & Zhou, J. (2001). When openness to experience and conscientiousness are related to creative behavior: An interactional approach. *Journal of Applied Psychology*, *86*(3), 513−524.

Gooty, J., Gavin, M., & Ashkanasy, N. M. (2009). Emotions research in OB: The challenges that lie ahead. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, *30*(6), 833–838.

Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (Vol. 2, pp. 105–117). Thousand Oaks, Calif: Sage Publications.

Guo, Y., Zhang, Y., Liao, J., Guo, X., Liu, J., Xue, X., … & Zhang, Y. (2017). Negative feedback and employee job performance: Moderating role of the Big Five. *Social Behavior and Personality: An International Journal*, *45*(10), 1735−1744.

He, Y., Yao, X., Wang, S., & Caughron, J. (2016). Linking failure feedback to individual creativity: The moderation role of goal orientation. *Creativity Research Journal*, *28*(1), 52−59.

Hempel, P. S. (2008). Chinese reactions to performance feedback: Non-task attributions of feedback intentions. *Asia Pacific Journal of Human Resources*, *46*(2), 196−219.

Hetty van Emmerik, I. J., Bakker, A. B., & Euwema, M. C. (2008). What happens after the developmental assessment center? Employees' reactions to unfavorable performance feedback. *Journal of Management Development*, *27*(5), 513−527.

Hillman, L. W., Schwandt, D. R., & Bartz, D. E. (1990). Enhancing staff members' performance through feedback and coaching. *Journal of Management Development*, *9*(3), 20−27.

Hoever, I. J., Zhou, J., & van Knippenberg, D. (2018). Different strokes for different teams: The contingent effects of positive and negative feedback on the creativity of informationally homogeneous and diverse teams. *Academy of Management Journal*, *61*(6), 2159−2181.

Hu, S., Creed, P. A., & Hood, M. (2019). Does socioeconomic status shape young people's goal revision processes in the face of negative career feedback? *Journal of Vocational Behavior*, *110*, 89−101.

Hu, S., Hood, M., & Creed, P. A. (2018). Career goal importance as a moderator in the relationship between career feedback and career-related stress. *Journal of Career Development*, *45*(1), 3−18.

Hu, X., Chen, Y., & Tian, B. (2016). Feeling better about self after receiving negative feedback: When the sense that ability can be improved is activated. *The Journal of Psychology*, *150*(1), 72−87.

Ilgen, D. R., Hollenbeck, J. R., Johnson, M., & Jundt, D. (2005). Teams in organizations: From input-process-output models to IMOI models. *Annual Review of Psychology*, *56*, 517−543.

Ilgen, D., & Davis, C. (2000). Bearing bad news: Reactions to negative performance feedback. *Applied Psychology*, *49*(3), 550−565.

Ilies, R., & Judge, T. A. (2005). Goal regulation across time: The effects of feedback and affect. *Journal of Applied Psychology*, *90*(3), 453−467.

Ilies, R., De Pater, I. E., & Judge, T. (2007). Differential affective reactions to negative and positive feedback, and the role of self-esteem. *Journal of Managerial Psychology*, *22*(6), 590−609.

Ilies, R., Judge, T. A., & Wagner, D. T. (2010). The Influence of Cognitive and Affective Reactions to Feedback on Subsequent Goals. *European Psychologist, 15*(2), 121−131.

Johnson, G., & Connelly, S. (2014). Negative emotions in informal feedback: The benefits of disappointment and drawbacks of anger. *Human Relations*, *67*(10), 1265−1290.

Kluger, A. N., & DeNisi, A. (1996). The effects of feedback interventions on performance: A historical review, a meta-analysis, and a preliminary feedback intervention theory. *Psychological Bulletin*, *119*(2), 254−284.

Kluger, A. N., Lewinsohn, S., & Aiello, J. R. (1994). The influence of feedback on mood: Linear effects on pleasantness and curvilinear effects on arousal. *Organizational Behavior and Human Decision Processes*, *60*(2), 276−299.

Kunda, Z. (1999). *Social cognition: Making sense of people*. Cambridge, MA: MIT Press.

Kuvaas, B., Buch, R., & Dysvik, A. (2017). Constructive supervisor feedback is not sufficient: Immediacy and frequency is essential. *Human Resource Management*, *56*(3), 519−531.

Larson, J. R., Jr (1984). The performance feedback process: A preliminary model. *Organizational Behavior and Human Performance*, *33*(1), 42−76.

Larson, J. R., Jr (1986). Supervisors' performance feedback to subordinates: The impact of subordinate performance valence and outcome dependence. *Organizational Behavior and Human Decision Processes*, *37*(3), 391−408.

Lazarus, R. S. (2006). *Stress and emotion: A new synthesis*. New York, NY: Springer.

Lazarus, R. S., & Cohen-Charash, Y. (2001). Discrete emotions in organizational life. In R. Payne & C. L. Cooper (Eds.), *Emotions in organizations* (pp. 45–81). Chichester: Wiley.

Lee, K., & Allen, N. J. (2002). Organizational citizenship behavior and workplace deviance: The role of affect and cognitions. *Journal of Applied Psychology*, *87*(1), 131–142.

Leung, K., Su, S., & Morris, M. W. (2001). When is criticism not constructive? The roles of fairness perceptions and dispositional attributions in employee acceptance of critical supervisory feedback. *Human Relations*, *54*(9), 1155−1187.

Li, G., Liu, H., Shang, Y., & Xi, Y. (2014). Leader feedback and knowledge sharing: A regulatory focus theory perspective. *Journal of Management & Organization*, *20*(6), 749−763.

Lindebaum, D., & Jordan, P. J. (2012). Positive emotions, negative emotions, or utility of

    discrete emotions? *Journal of Organizational Behavior*, *33*(7), 1027–1030.

London, M. (2003). *Job feedback: Giving, seeking and using feedback for performance*

    improvement (2nd ed.). Mahwah, NJ: Lawrence Erlbaum.

London, M., & Smither, J. W. (2002). Feedback orientation, feedback culture, and the

    longitudinal performance management process. *Human Resource Management*

    Review, *12*(1), 81−100.

Mischel, W., & Shoda, Y. (1995). A cognitive-affective system theory of personality:

    Reconceptualizing situations, dispositions, dynamics, and invariance in personality

    structure. *Psychological Review*, *102*(2), 246−268.

Mischel, W., & Shoda, Y. (1998). Reconciling processing dynamics and personality

    dispositions. *Annual Review of Psychology*, *49*(1), 229−258.

Motro, D., Comer, D. R., & Lenaghan, J. A. (2020). Examining the effects of negative

    performance feedback: The roles of sadness, feedback self-efficacy, and grit. *Journal*

    of Business and Psychology. doi: 10.1007/s10869-020-09689-1.

Niemann, J., Wisse, B., Rus, D., Van Yperen, N. W., & Sassenberg, K. (2014). Anger and

    attitudinal reactions to negative feedback: The effects of emotional instability and

    power. *Motivation and Emotion*, *38*(5), 687−699.

O'Malley, A. L., & Gregory, J. B. (2011). Don't be such a downer: Using positive

    psychology to enhance the value of negative feedback. *The Psychologist-Manager*

    Journal, 14(4), 247−264.

Podsakoff, P. M., & Farh, J. L. (1989). Effects of feedback sign and credibility on goal

    setting and task performance. *Organizational Behavior and Human Decision*

    Processes, 44(1), 45−67.

Pulakos, E. D., & O'Leary, R. S. (2011). Why is performance management

    broken? *Industrial and Organizational Psychology*, *4*(2), 146−164.

Raftery, J. N., & Bizer, G. Y. (2009). Negative feedback and performance: The moderating

    effect of emotion regulation. *Personality and Individual Differences*, *47*(5), 481−486.

Russell, J. A. (1980). A circumplex model of affect. *Journal of Personality and Social*

    Psychology, *39*(6), 1161−1178.

Schroeder, J., & Fishbach, A. (2015). How to motivate yourself and others? Intended and

    unintended consequences. *Research in Organizational Behavior*, *35*, 123−141.

Seo, M. G., Barrett, L. F., & Bartunek, J. M. (2004). The role of affective experience in work

    motivation. *Academy of Management Review*, *29*(3), 423−439.

Smither, J. W., London, M., & Reilly, R. R. (2005). Does performance improve following

    multisource feedback? A theoretical model, meta-analysis, and review of empirical

    findings. *Personnel Psychology*, *58*(1), 33−66.

Steelman, L. A., & Rutkowski, K. A. (2004). Moderators of employee reactions to negative

    feedback. *Journal of Managerial Psychology*, *19*(1), 6−18.

Steelman, L. A., Levy, P. E., & Snell, A. F. (2004). The Feedback Environment Scale:

    Construct definition, measurement, and validation. *Educational and Psychological*

    Measurement, 64(1), 165−184.

Tata, J. (2002). The influence of managerial accounts on employees' reactions to negative

    feedback. *Group & Organization Management*, *27*(4), 480−503.

Tesser, A., & Rosen, S. (1975). The reluctance to transmit bad news. In L. Berkowitz (Ed.),

    Advances in experimental psychology (Vol. 8, pp. 193−232). New York: Academic

    Press.

Van De Voorde, K., & Beijer, S. (2015). The role of employee HR attributions in the relationship between high-performance work systems and employee outcomes. *Human Resource Management Journal*, *25*(1), 62−78.

Van Dijk, D., & Kluger, A. N. (2004). Feedback sign effect on motivation: Is it moderated by regulatory focus? *Applied Psychology*, *53*(1), 113−135.

Van Dijk, D., & Kluger, A. N. (2011). Task type as a moderator of positive/negative feedback effects on motivation and performance: A regulatory focus perspective. *Journal of Organizational Behavior*, *32*(8), 1084−1105.

Vancouver, J. B., & Tischner, E. C. (2004). The effect of feedback sign on task performance depends on self-concept discrepancies. *Journal of Applied Psychology*, *89*(6), 1092−1098.

Wang, M., Burlacu, G., Truxillo, D., James, K., & Yao, X. (2015). Age differences in feedback reactions: The roles of employee feedback orientation on social awareness and utility. *Journal of Applied Psychology*, *100*(4), 1296−1308.

Weiss, H. M., & Cropanzano, R. (1996). Affective events theory: A theoretical discussion of the structure, causes, and consequences of affective experiences at work. In B. M. Staw & L. L. Cummings (Eds.), *Research in organizational behavior* (Vol. 18, pp. 1–74). Greenwich, CT: JAI Press.

Young, S. F., Richard, E. M., Moukarzel, R. G., Steelman, L. A., & Gentry, W. A. (2017). How empathic concern helps leaders in providing negative feedback: A two-study examination. *Journal of Occupational and Organizational Psychology*, *90*(4), 535–558.

Zenger, J. & Folkman, J. (2017, May 2). Why do so many managers avoid giving praise? *Harvard Business Review*. Retrieved from https://hbr.org/2017/05/why-do-so-many-managers-avoid-giving-praise

Zhou, J. (1998). Feedback valence, feedback style, task autonomy, and achievement

    orientation: Interactive effects on creative performance. *Journal of Applied*

    Psychology, *83*(2), 261−276.

Zimmerman, R. D., Swider, B. W., Woo, S. E., & Allen, D. G. (2016). Who withdraws?

    Psychological individual differences and employee withdrawal behaviors. *Journal of*

    Applied Psychology, *101*(4), 498−519.

Zingoni, M., & Byron, K. (2017). How beliefs about the self influence perceptions of

    negative feedback and subsequent effort and learning. *Organizational Behavior and*

    Human Decision Processes, *139*, 50−62.

Chapter 2

Supervisor Negative Feedback and Employee Motivation to Learn: A Motive

Attribution Perspective

Introduction to Study One

The first of the studies in this thesis is a quantitative study focused on the way cognition is involved in determining the outcomes of negative feedback. We draw on an attribution perspective to explore the mediating role of different types of attributions in linking negative feedback and employee outcomes. In making attributions, employees interpret and give psychological meaning to feedback, and this in turn influences their motivational outcomes. We investigate under which conditions different sorts of attribution are more likely or less likely to emerge. By doing so, we aim to examine *how* and *when* supervisor negative feedback leads to variability in employees' motivation to learn, a cognitive issue. We collected two samples to test the hypotheses about how and when supervisor negative feedback would lead to particular outcomes. The first is a sample of 370 employees in the USA and the second is a sample of 302 hospital nurses in China. The results generalized across the two studies and provide support for our model.

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Supervisor Negative Feedback and Employee Motivation to Learn: A Motive

Attribution Perspective

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Abstract

The variability that has been found in employee responses towards negative feedback highlights a need to investigate the attributions employees make about their supervisor's motives in giving feedback. We propose and test a model in which supervisor negative feedback and employee core self-evaluation (CSE) are interactively related to employees attributing supervisor feedback to performance-driven (external attribution) or self-serving (internal attribution) reasons. These two motive attributions, in turn, influence employee motivation to learn. We tested our hypotheses using three-wave time-lagged survey data from 370 employees in the United States (Study 1) and 302 hospital nurses in China (Study 2). Consistent with our theorizing, supervisor negative feedback had a stronger relationship with external attribution when CSE is higher, and a stronger relationship with internal attribution when CSE is lower. External and internal attributions of supervisor negative feedback respectively enhance and impair employee motivation to learn. Motivation to learn was positively related to learning performance. Implications for research and practice are discussed.

*Keywords***:** Core self-evaluation, feedback motive attribution, learning performance, motivation to learn, supervisor negative feedback.

1. Introduction

Negative feedback refers to the activity of informing employees that their current performance is below expectations. Such feedback is a primary means of influencing employee behavior but has been a conundrum for both researchers and practitioners (see reviews by Audia and Locke, 2003; O'Malley and Gregory, 2011; Kluger and DeNisi, 1996). Negative feedback highlights for employees the discrepancies between their performance and the goals, and motivates them to improve their performance (Carver and Scheier, 1998; Podsakoff and Farh, 1989). However, growing evidence indicates such feedback may not necessarily be effective. Negative feedback can evoke negative emotions (Belschak and Den Hartog, 2009; Young et al., 2017) or be perceived as inaccurate (Brett and Atwater, 2001; Ilgen et al., 1979), both of which demotivate employees to take corrective action (Li et al., 2014). Attribution research provides a useful perspective to explain such variability in employee motivational consequences (Weiner, 2011). Research has overwhelmingly focused on the attribution of the cause of the observed performance (e.g., Bannister, 1986; Donovan and Williams, 2003; Liden and Mitchell, 1985). It finds that employees are willing to work to improve only when they attribute the performance to internal or external factors that are controllable, such as a lack of effort or of external help (Ilgen and Davis, 2000).

Although these studies on causal attributions for poor performance have provided many valuable insights, this line of research is based on an implicit assumption that employees acknowledge their underperformance after negative feedback, which paints employees as generally passive receivers of the feedback information. In fact, employees in reality would be more likely to actively make sense of the negative feedback by interpreting their supervisors' motives in giving such feedback (Fedor et al., 1989, 1990; Wu and Leung, 2000). The motive attribution perspective postulates that individuals have an innate desire to understand the underlying motives of the actor, and this ascribed meaning will influence how

the perceiver reacts (Ferris et al., 1995; Regan, 1978). Although the concept of motive attribution and its application in organizational behavior research has attracted considerable interest in recent years (e.g., in studies of abusive supervision, Liu et al., 2012; ethical leadership, Li et al., 2017; human resource practices, Hewett et al., 2019), there is a dearth of empirical research clarifying its role in the feedback process. This is a significant oversight since in the context of supervisor-employee interactions, supervisor motives impact employees' interpretations of the nature of supervisor behaviors, as well as their subsequent reactions (Dasborough and Ashkanasy, 2002). Based on previous work on testing the mediating role of causal attributions (e.g., Green et al., 1994), our model aims to highlight how motive attribution represents an alternative mechanism that explains the different responses to negative feedback.

Following an attribution perspective, individual differences can influence the extent to which employees draw inferences from their supervisor's behavior (Shao et al., 2018; Van Kleef et al., 2009).That is, different employees may make distinct attributions of motive on the basis of the negative feedback they receive, which then leads to variability in their motivational responses. In this study, we focus on a specific disposition, core self-evaluation (CSE, Judge et al., 1997). As an aggregate construct, CSE comprises four personality traits underlying individuals' cognitive appraisal processes: self-esteem, generalized self-efficacy, emotional stability, and locus of control. These four traits function together in an employee's understanding of their work environment (Johnson et al., 2008; Rode et al., 2012). Compared to single personality traits, CSE addresses the mutual influences at an overall level and would be expected to play a critical role in employees' inferences about their supervisor's feedback. CSE has been found to shape an individual's response to supervisor behaviors, especially when the context involves unfavorable outcomes (e.g., Deng and Leung, 2014; Zhang et al., 2014). More relevant to our study, Chang et al. (2012) suggested that CSE is "particularly

well-suited for improving understanding of employee reactions to negative feedback" (p. 115). Following their lead, we suggest that motive attributions elicited by negative feedback are contingent on employees' CSE. Specifically, we postulate that high-CSE employees tend to infer that the reasons for negative feedback are constructive, while low-CSE employees are more likely to make nonconstructive inferences.

To summarize, supervisor negative feedback leads to distinct motive attributions that are proximal determinants of motivational outcomes for some employees, and our model integrates CSE to suggest *for which employees* this occurs. In particular, we investigate employees' motivation to learn, that is, their willingness to engage in training and development activities and to take on learning experiences (Major et al., 2006). We focus on learning for two main reasons. Theoretically, motivation to learn reflects the degree to which employees desire to initiate positive change and solve problems, which is the intended function of negative feedback. The importance of feedback for learning has long been emphasized (Cannon and Witherspoon, 2005; Zingoni and Byron, 2017); however, existing studies on feedback and learning-related outcomes have conflicting findings (e.g., with feedback leading to an increase in learning, Liu and Xiang, 2018; or a decrease in learning, Bezuijen et al., 2010), highlighting the need for a more nuanced view. Practically, participation in learning activities is critical for employees to remain knowledgeable and skillful in a rapidly changing workplace (Manuti et al., 2015), and fostering employee learning has become a major priority for management. Thus, examining motivation to learn provides practical implications on the use of feedback to manage learning effectively.

We aim to make two contributions to the feedback and attribution literature. The first novel aspect of this study is that we investigate motive attribution and its role in negative feedback's influences Although the concept of feedback motive attribution was introduced in 1989 (Fedor et al., 1989), research is surprisingly rare. We adopt two types of attribution—

external and internal—that employees often make about feedback and test their differential roles in predicting motivation to learn. By doing so, we advance a new theoretical lens for explaining how employees respond to negative feedback. We explain why such feedback can both increase and decrease employee motivation, which helps to integrate the inconsistent findings on the effects of negative feedback. Second, by investigating the role of employee CSE, we formulate how supervisor feedback and employee characteristics jointly shape different motive attributions. The individual differences determine when each attribution will prevail and contribute to more complete and precise predictions of the overall effects of negative feedback. Our study thus sheds new light on the contingency of negative feedback effects and helps illustrate for whom supervisor negative feedback is more likely to exert beneficial or detrimental effects. We test our hypotheses in a moderated mediation model as presented in Figure 1.
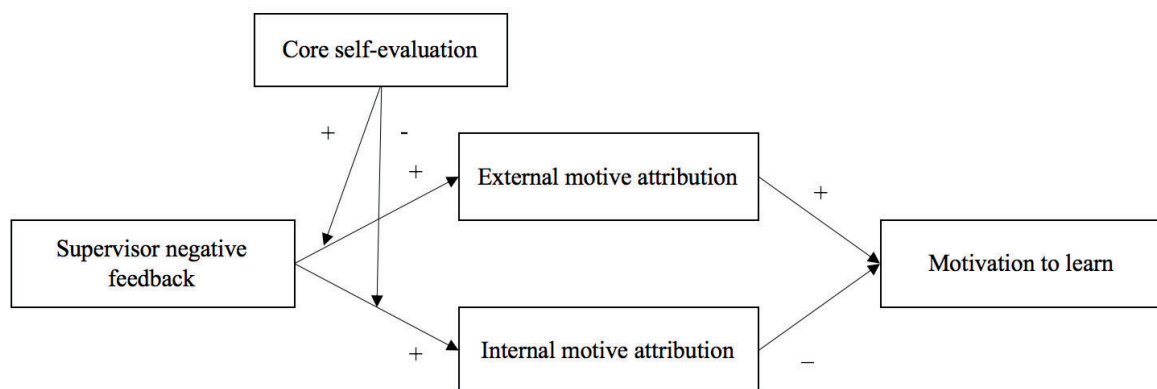
Figure 1. The research model

2. Theoretical framework and hypotheses

2.1 A motive attribution perspective of supervisor negative feedback

The underlying premise of an attribution perspective is that people have a fundamental tendency to search for the causes of events that affect them (Heider, 1958; Kelley, 1967; Weiner, 1986). Motives play a central role in identifying the causes and ascribing meaning to others' behaviors (Dasborough and Ashkanasy, 2002; Ferris et al., 1995). Perceiving motives

helps an observer understand and predict an actor's behavior, and is therefore critical in interpersonal interactions (Thomas and Pondy, 1977). Combined with the feedback context, employees will not only hear what the supervisor says but will also actively interpret their motives and intentions in giving that feedback. Since feedback is normally communicated informally on a daily basis (Steelman et al., 2004), its ever-changing context requires active processing by the recipient (Fedor et al., 1990).

According to Heider (1958), a fundamental consideration for explaining why someone behaved as they did is whether the locus of causality is internal or external to the person. Following Hempel (2008), we divide the motives behind negative feedback into external and internal attributions. *External attribution* refers to the extent to which employees perceive a supervisor's motive as being external to that supervisor, such as them acting to maintain the company's competitive position, or to improve an employee's performance at work. Such attribution is perceived as task- and performance-driven and may be associated with positive motivational outcomes. *Internal attribution* refers to the extent to which employees ascribe the cause of the supervisor's negative feedback to factors that relate to that supervisor's disposition or to self-serving factors, such as the supervisor's dislike of the employee, the supervisor feeling their status is threatened, or the supervisor being in a bad mood. In cases of internal attribution, the feedback is perceived as a hidden message concerning matters other than performance and may lead to a decline in work motivation (Hempel, 2008).

Motive attributions are said to mediate between an actor's behavior and the observer's response (Thomas and Pondy, 1977). Previous research has found that motive attribution transmits the influence of leadership and human resource practices to employees (e.g., Li et al., 2017; Van De Voorde and Beijer, 2015). Following these arguments, negative feedback provides employees with relevant information about the supervisor and the situation, so employees may infer what is implied from the negative feedback. These inferences will

further enable employees to formulate appropriate reactions to deal with the negative feedback. In this process, individuals can make internal or external attributions or a mix of the two (Fedor et al., 1989). Given the complexity involved in the attribution process, employees often make multiple attributions at once, and feel less or more confident about any given one (Burton et al., 2014; Eberly et al., 2011). The multiple attribution processes begs the question: In which ways do employees determine a supervisor's motives after experiencing negative feedback, and how do these conclusions impact their motivations to improve? In the next section, we develop arguments concerning how personal CSE may aid employees' appraisal in ways that strengthen or weaken their tendencies to make external or internal attribution, respectively. We then examine the effects of these two attributions on motivation to learn.

2.2 Supervisor negative feedback and feedback motive attribution: Moderating role of Core Self Evaluation (CSE)

Kelly and Michela's (1980) theorizing highlights the importance of individuals' beliefs and expectations in shaping their attributions. Employees can understand supervisor negative feedback as negative feedback delivered by a specific supervisor, and thus the way that employees appraise that particular supervisor and their negative feedback would impact their attributions. CSE refers to "fundamental premises that individuals hold about themselves and their functioning in the world" (Judge et al., 1998, p. 161). Defined as the fundamental evaluation of self, CSE is closely correlated with the evaluation of others and the world (Judge et al., 1998). In the workplace, such a positive self-evaluation is especially salient in shaping employees' positive appraisals of supervisors and work events (Chang et al., 2012; Kammeyer-Mueller et al., 2009). Therefore, CSE represents an appropriate moderator to examine how employees make different attributions by examining its influence on appraisals of the supervisor and the feedback.

We argue that a higher level of CSE is associated with a stronger influence of negative feedback on external attribution. First, high-CSE employees tend to present their supervisors in a positive way. We argue that self-evaluation can function as a source of interpersonal attitudes. The same experiences and heredity that lead to positive self-evaluation also lead people to view others favorably (Gardner and Pierce, 2009; Judge et al., 1998). People with a positive self-evaluation also perceive the world as benevolent and just, and are inclined to trust others (Goel et al., 2005). Therefore, people with high levels of CSE are likely to consider others to be fundamentally trustworthy. Employees of this type may thus consider situational explanations of negative events, while absolving the supervisor from responsibility. In the context of negative feedback, high-CSE employees would tend to infer no malicious intent on the part of the supervisor, but rather a concern for performance. That is, a given level of negative feedback will be associated with stronger external attribution for employees with high CSE.

Second, employees with high CSE tend to approach negative feedback as an opportunity. These individuals view their environment in a positive way and are less sensitive to negative stimuli (Chang et al., 2012). High-CSE employees perceive their work as motivating and experience their conditions of work positively (Gardner and Pierce, 2010). These positive beliefs provide a cognitive framework to guide their thinking about negative feedback. For such employees, negative feedback carries information about shortcomings in their work and suggests how they can make improvements (Bezuijen et al., 2010). Interpreting feedback in this way is also consistent with their positive image, which is maintained across different situations (Judge et al., 2003). To the extent that an employee focuses on his or her performance, he or she will be inclined to attribute supervisor feedback as stemming from a concern for performance—for example, "the supervisor criticizes me due

to my underperformance, in order that I can obtain a higher level of achievement". Thus, we hypothesize:

Hypothesis 1: Negative feedback has a stronger positive correlation with external motive attribution for employees with higher CSE (than for those with lower CSE).

In contrast, when employees' self-evaluation is low, their evaluation of their supervisor will correspondingly be unfavorable. People who evaluate themselves negatively have similar attitudes towards others (Walther and Trasselli, 2003). This is because low self-evaluators tend to perceive others and the world as dangerous and malevolent, and they are "contemptuously distrustful of human nature and motives" (Judge et al., 1997, p. 166). Low CSE is shown to predict cynicism, which makes employees readily infer malicious intent on the part of supervisors (Scott and Zweig, 2016). An empirical investigation showed that individuals with lower self-esteem attributing hostile intent to their supervisors when receiving feedback (Reijntjes et al., 2011). In addition, low-CSE employees in particular tend to experience distress when facing negative events at work (Zhou et al., 2015), and such negative affect fosters a skeptical interpretation of the motives of others, considering that they are operating out of self-interest (Forgas and George, 2001). Therefore, the effects of negative feedback on internal attribution will be amplified.

Further, employees with low CSE tend to perceive negative feedback as a threat. Low-CSE individuals are sensitive to potential negative thoughts about themselves or their perceived weaknesses (Zhang et al., 2014), so they tend to interpret work events as being threatening. Although negative feedback merely carries information about underperformance, low-CSE employees are likely to personalize the feedback since they easily relate the negative stimuli to their self-concept (Swann, 1987), and so interpret that there are implicit meanings behind the negative feedback, such as their supervisor personally targeting them for blame. The more strongly an employee focuses on hidden meanings, the more they will be

inclined to attribute a personal motive to their supervisor. Based on these arguments, we expect to observe the moderating effects of CSE on the influence of supervisor negative feedback on employee internal motive attribution:

Hypothesis 2: Negative feedback has a stronger positive correlation with internal motive attribution for employees with lower CSE (than for those with higher CSE).

2.3 Feedback motive attribution and motivation to learn

Ferris et al. (1995) suggested that people respond to attributed motives rather than to a behavior itself. Attributions enable employees to assess a situation both cognitively and affectively (Harvey et al., 2014), which helps them decide on the appropriate response. We argue that an external attribution, that is an understanding that a supervisor delivers feedback because they have a genuine focus on performance, will enhance an employee's motivation to learn. First, such an attribution predisposes employees to become aware that their performance is not adequate to meet external standards, imposing a continuous demand for more effort in the work. External attribution also encourages employees to assess the information contained in the feedback, which can help them detect their current shortcomings and potential opportunities to overcome them (Chen et al., 2017). The demand for more effort, combined with opportunities to improve, foster employees' motivation to learn (Karasek, 1979; Taris et al., 2003). This is consistent with theorizing that when a situation that led to negative feedback is attributed to controllable factors (that is, employee's own performance), this causes employees to maintain striving toward goals (Kelly and Michela, 1980). Second, external attribution means that the feedback is understood to result from external circumstances and is contingent on performance. That is, supervisors are interpreted as delivering negative feedback for the good of employees, the organization, and other stakeholders. Such supervisors are normally perceived as effective and charismatic (Atwater et al., 1997; Shao et al., 2018), and employees may thus preserve a favorable attitude towards

the supervisor. Faced with a supervisor's expectations that they will improve their performance, employees are motivated to approach the task by making novel improvements (Gaddis et al., 2004), which also involve learning.

Prior studies also provide indirect support for our theorizing. For example, Liu et al. (2012) found that when employees perceive that abusive supervision is driven by motives of improved performance, they are more likely to achieve higher creative performance. Similarly, Sue-Chan et al. (2011) argued that attributions that supervisor's coaching was for the benefit of subordinates is positively related to employee performance. In conjunction with our prediction that the positive relationship between negative feedback and external attribution is stronger when CSE is higher (H1), we expect the following moderated mediation effect:

Hypothesis 3: Negative feedback has a stronger positive indirect effect on motivation to learn through external attribution for employees with higher CSE than for those with lower CSE.

In contrast, we suggest a negative relationship between internal attribution and motivation to learn. First, the interpretation of negative feedback as motivated by reasons internal to the supervisor reinforces the belief that the feedback is not related to performance (Hempel, 2008). For example, employees may draw the conclusion that "my supervisor is a critical person, and always gives negative feedback, no matter what", which distracts their attention from the information about their performance that is carried by feedback. Therefore, internal attribution leads to employees discounting the value of feedback information and failing to seize improvement opportunities. Consequently, employees are unwilling to participate in learning and development. Second, internal attribution also results in an unfavorable evaluation of the supervisor (Schaubroeck and Shao, 2012). This attribution leads employees to expect that they will receive negative feedback in the future, leading to

dissatisfaction with their supervisor (Chen et al., 2017; Leung et al., 2001). Therefore employees are discouraged from following their supervisor's instructions and are less likely to be motivated to learn and improve. We argued above that employees are more likely to make internal attribution when they have low CSE, which leads to the following moderated mediation hypothesis:

Hypothesis 4: Negative feedback has a stronger positive indirect effect on motivation to learn through internal attribution for employees with lower CSE than for those with higher CSE.

We tested our hypotheses across two multi-wave studies of different populations. Study 1 examined the full research model using a sample of employees in the USA. Study 2 replicated the results using a Chinese sample and extended the results by including objective learning performance data. Details of these two studies are presented below.

3. Study 1: Methods

3.1 Sample and procedure

Data were collected through Amazon's Mechanical Turk (MTurk), which is commonly used in social sciences research (Litman et al., 2017; Mason and Suri, 2012). Such crowdsourced data have shown similar psychometric properties and validities to data obtained by conventional methods, especially in English-speaking countries (Cheung et al., 2017; Feitosa et al., 2015; Walter et al., 2019). To qualify for the survey, participants were required to (a) be employed full-time and (b) live in the United States. Following the best practices of MTurk research (Porter et al., 2019), we selected "high-reputation" participants by recruiting only those who had completed at least 50 MTurk assignments and had a higher than 95% approval rating (this indicates the frequency with which the respondent's data were accepted as valid by previous researchers). We collected data in three waves, by sending invitation emails to the participants for follow-up surveys using the TurkPrime functionality.

Participants received US$1 in exchange for completing the initial survey, US$2 for the second survey, and US$4 for the final survey. To identify careless online responding, each survey contained one instructed response item (e.g., "To monitor quality, please respond with 'Strongly agree' for this item"; Meade and Craig, 2012).

We recruited 500 participants at the initial stage. A total of 497 participants completed the Time 1 survey (response rate 99.4%), which included measures of supervisor feedback, CSE, and employee demographics. Of these, 439 took the Time 2 survey (response rate 88.3%), which included the measures of external and internal attribution two weeks later. Finally, after an additional fortnight, 402 participants completed the Time 3 survey (response rate 91.6%), which included the measure of motivation to learn. The length of temporal separation is appropriate since it makes prior responses less salient and short-term memory available, while avoiding the potential influences of contaminating factors (Fulmer and Ostroff, 2017; Wang et al., 2019). Participants who did not respond in later surveys were slightly younger ($M = 34.5$ years) than those participants who were retained (T2 $M = 38.5$, $p < .01$; T3 $M = 38.8$, $p < .01$); however, excluding age, participants did not differ across Times 1 to 3 along any Time 1 variable, nor across Times 2 and 3 along the Time 2 variables. This indicates that attrition was not a major problem.

Of the matched sample of 402 participants, 32 were removed from the analysis because they failed the instructed response item or they provided inconsistent data on the demographic questions. To check the robustness of our results, we ran our analyses with and without these 32 participants and found the same results. The final sample of 370 participants had an average age of 38.8 years ($SD = 9.8$), was 49.5% male, and had worked for their current supervisor an average of 4.5 years ($SD = 4.1$). In terms of their education, 5.9% reported they had completed high school or a lower level, 18.4% had a diploma, while 54.6% had a bachelor's degree, 18.9% had a master's degree, and 2.2% had doctoral degrees.

3.2 Measures

A five-point Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree") was used for all scales other than supervisor feedback. Scale measures are described below.

Supervisor negative feedback. The four-item scale used to measure supervisor negative feedback was based on Steelman et al. (2004). The original scale reflects the perceived frequency with which that feedback is believed to accurately reflect performance. However, employees often have no, little, or inconsistent information about how well they are performing (Ashford, 1986). In keeping with our conceptualization of supervisor negative feedback, we revised the wording of Steelman et al.'s items to focus on negative feedback from supervisors and de-emphasize the connotation that performance warrants such feedback. We asked respondents to indicate how frequently their supervisor engaged in the behavior described in each item, where the items were "lets me know that I didn't meet some deadlines", "tells me that my work performance does not meet organizational standards", "lets me know that my job performance falls below what is expected", and "tells me that I made a mistake at work". Cronbach's alpha reliability (α) was .88 in this study. Participants responded using a five-point Likert scale (where 1 = "never" and 5 = "always").

Feedback attribution. External and internal attributions were measured with three items each developed by Hempel (2008). The original scale was designed to measure the attribution made by employees in relation to the supervisor's provision of general feedback. In this study, we asked respondents to indicate why their supervisors gave them negative feedback. Sample items for external and internal attribution respectively are "Help company improve productivity" and "Due to his/her emotions". Cronbach's α results were .71 and .85, respectively, for the two scales.

Core self-evaluation. We used the Core Self-Evaluation scale (Judge et al., 2003), which comprises self-esteem, generalized self-efficacy, emotional stability, and locus of control.

The scale included 12 items. Sample items include "Overall, I am satisfied with myself", "I am capable of coping with most of my problems", "Sometimes I feel depressed" (reverse coded), and "I determine what will happen in my life". Cronbach's α was .92.

Motivation to learn. To gauge employee motivation to learn, we used Bezuijen et al.'s (2010) eight-item scale of engagement in learning activities that measures "discretionary behaviors in ongoing learning activities to master new knowledge, skills, and abilities" (Bezuijen et al., 2009, p. 1248), reflecting the operationalization of motivation to learn. A sample item is "Within my task responsibilities, I actively look for methods to improve my work". Cronbach's α was .83 in this study.

Control variables. First, we measured and controlled for positive feedback to separate out the effects of negative feedback in this study. Although some studies have treated positive and negative feedback as opposite ends of a continuum, the two can occur relatively independently in organizations (Kim and Kim, in press; Steelman et al., 2004). That is, a supervisor may simultaneously provide positive feedback on some tasks while giving negative feedback on others. For consistency with the measure of negative feedback, we modified the four-item scale from Steelman et al. (2014): the items in our study were "(my supervisor) lets me know that I did a good job at work", "(my supervisor) praises my performance", "(I) receive praise from my supervisor", and "(I) receive positive feedback from my supervisor". Cronbach's α was .94 in this study. Participants responded using a five-point Likert scale (where 1 = "never" and 5 = "always").

Second, we accessed employee gender, age, and education, as these may be associated with motivation to learn (Bezuijen et al., 2010; Colquitt et al., 2000). We also measured the dyadic tenure between supervisor and subordinate, since this may influence employees' perceptions of their supervisor (Wayne et al., 1997). With the exception of education, none of these variables were related to the two attributions or the outcome. Although education was

positively correlated with motivation to learn ($r = .14$, $p < .01$), controlling for education did not affect the pattern of results. We therefore proceeded to hypothesis testing without controlling for any demographics to preserve the degrees of freedom and minimize the potential for type II errors (Calson and Wu, 2012; Schippers et al., 2013).

3.3 Analytic strategy

The hypothesized model was tested using hierarchical regression modeling with Mplus Version 7 (Muthén and Muthén, 2015). Rather than testing using piecemeal or causal steps approaches, we tested our hypotheses simultaneously. In examining moderating effects, we used Aiken and West's (1991) procedures to test the significance of interaction terms, conduct a simple slope analysis, and plot the figures. For the tests of moderated mediating effects, we relied on Preacher et al.'s (2007) work to calculate the index of moderated mediation and the indirect effects at high (+1 SD) and low (-1 SD) levels of moderators. Moderated mediation effects exist if the 95% confidence intervals (CIs) for the index exclude zero. All bias-corrected bootstrapping was implemented by drawing 2,000 random samples with replacement from the full sample.

4. Study 1: Results

Confirmatory factor analysis. To maintain a favorable indicator-to-sample-size ratio (Bagozzi and Edwards, 1998), we used item parceling for CSE and motivation to learn. Specifically, we randomly divided the 12 items for CSE and the 8 items for motivation to learn respectively into four parcels before entering them into confirmatory factor analysis. This yielded 22 indicators for six latent constructs. Results indicated that the theorized six-factor model had an acceptable fit ($\chi^2(194) = 580.46$, SRMR = .06, RMSEA = .07, CFI = .92, TLI = .91), and fit better than alternative models (e.g., a five-factor model that combined two types of attributions: $\chi^2(199) = 804.20$, SRMR = .08, RMSEA = .09, CFI = .88, TLI = .86; a

five-factor model that combined negative and positive feedback: $\chi^2(199) = 1329.92$,
SRMR = .12, RMSEA = .12, CFI = .78, TLI = .74).

Descriptive analysis. As shown in Table 1, correlations are generally in the expected direction. Employee's external attribution was positively correlated with motivation to learn ($r = .22$, $p < .01$), while internal attribution was negatively correlated with motivation to learn ($r = -.31$, $p < .01$). Notably, negative feedback was positively correlated with internal attribution ($r = .43$, $p < .01$), while uncorrelated to external attribution ($r = .08$, *n.s.*).

Hypothesis testing. Table 2 shows the regression results. Supporting Hypothesis 1, negative feedback interacted significantly with CSE in predicting external attribution ($b = .22$, $p < .05$; Figure 2). Simple slopes analyses show the relationship between negative feedback and external attribution was positive when CSE was high ($b = .36$, $p < .01$) but nonsignificant when it was low ($b = .03$, *n.s.*). Supporting Hypothesis 2, the interaction was still significant in predicting internal attribution ($b = -.35$, $p < .01$; Figure 3). Negative feedback was positively related to internal attribution when CSE was low ($b = .71$, $p < .01$), but the relationship was nonsignificant when it was high ($b = .19$, *n.s.*). The CSE and negative feedback interaction term explained 2% and 3% of the variance in external and internal attribution respectively. Regression results suggest that our model explained 22% of the variance in employee motivation to learn.

Table 1. Means, standard deviations, and correlations

Variables	M	SD	1	2	3	4	5	6	7	8	9	10	11
Study 1													
1. Age	38.75	9.80											
2. Gender	1.51	.50	.15**										
3. Dyad tenure	4.33	3.74	.36**	.07									
4. Education	2.93	.83	-.07	-.08	-.00								
5. Positive feedback T1	3.43	.94	.09	.04	.04	.00	(.94)						
6. Negative feedback T1	2.07	.66	-.13*	.01	-.04	-.19**	-.27**	(.88)					
7. Core self-evaluation T1	3.72	.73	.22**	-.05	.17**	.08	.40**	-.34**	(.92)				
8. External attribution T2	3.04	.93	-.02	.00	-.05	-.03	.16**	.08	.02	(.71)			
9. Internal attribution T2	2.14	1.01	-.08	.04	-.08	-.07	-.50**	.43**	-.31**	.04	(.85)		
10. Motivation to learn T3	3.70	.63	.02	-.02	.02	.14**	.42**	-.19**	.45**	.22**	-.31**	(.83)	
Study 2													
1. Age	29.07	5.26											
2. Gender	1.94	.24	.15*										
3. Dyad tenure	4.78	3.86	.65**	.14*									
4. Education	3.61	.52	.30**	.11	.26**								
5. Positive feedback T1	3.49	.75	.05	-.04	.02	.12*	(.85)						
6. Negative feedback T1	2.47	.94	-.03	-.12*	.03	.00	.11	(.89)					
7. Core self-evaluation T2	3.65	.56	.11	.00	.01	.08	.25**	-.10	(.90)				
8. External attribution T2	3.71	.69	.01	.05	.05	.07	.29**	.14*	.30**	(.90)			
9. Internal attribution T2	1.72	.78	-.03	-.06	.06	-.03	-.38**	.10	-.36**	-.36**	(.93)		
10. Motivation to learn T3	3.63	.60	.16**	-.01	.12*	.18**	.27**	-.09	.42**	.35**	-.31**	(.93)	
11. Learning performance (initial)	78.67	8.62	.16**	.07	.14**	.19**	.06	.06	.03	.05	-.14*	.20**	
12. Learning performance (subsequent)	66.78	7.85	.14*	.07	.12*	.08	.12*	-.03	.08	.04	-.11	.23**	.32**

Note: ** $p < .01$, * $p < .05$.

Table 2. Regression results testing the hypothesized model

	External attribution		Internal attribution		Motivation to learn		Learning performance	
	b	SE	b	SE	b	SE	b	SE
Study 1								
Positive feedback	.19**	.06	-.42**	.06	.20**	.04		
Negative feedback	.20**	.07	.45**	.07	-.06	.05		
CSE	-.02	.08	-.05	.07				
Negative feedback*CSE	.22*	.09	-.35**	.10				
External attribution					.12**	.03		
Internal attribution					-.09*	.04		
R^2	.06*		.38**		.22**			
Study 2								
Positive feedback	.20**	.06	-.34**	.06	.13**	.05	.71	.66
Negative feedback	.10*	.04	.09*	.04	-.09**	.03	-.27	.50
CSE	.31**	.07	-.36**	.07				
Negative feedback*CSE	.23**	.07	-.14*	.07				
External attribution					.24**	.04	-.63	.64
Internal attribution					-.11**	.04	-.16	.64
Learning performance (initial)							.26**	.06
Motivation to learn							2.26*	.96
R^2	.19**		.24**		.20**		.12**	

Note: **$p < .01$, *$p < .05$. $N = 275$ when analyzing learning performance as the outcome.
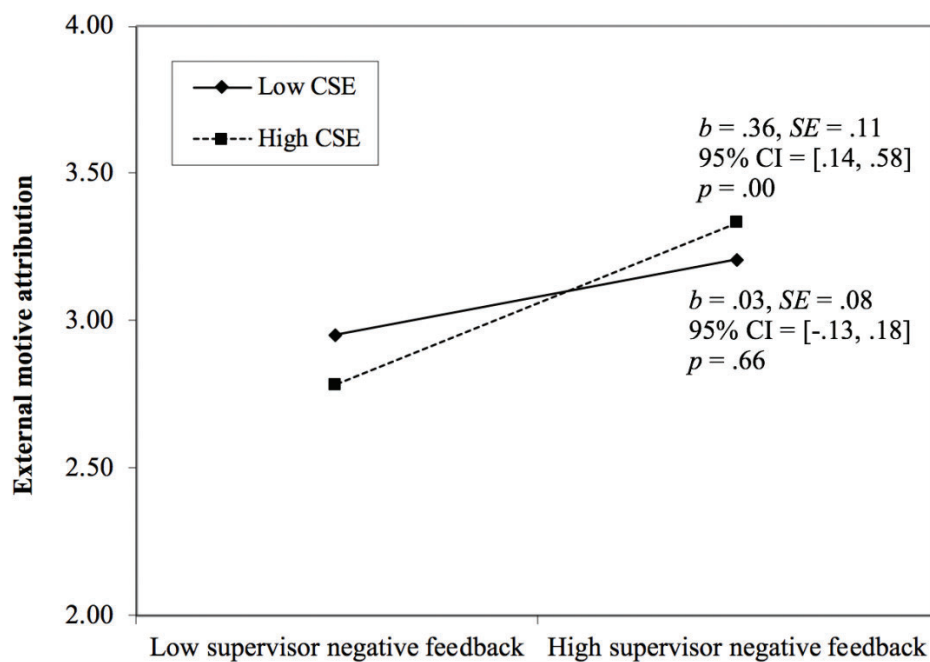
Figure 2. The moderating effect of CSE on the relationship between supervisor negative feedback and external motive attribution (Study 1)
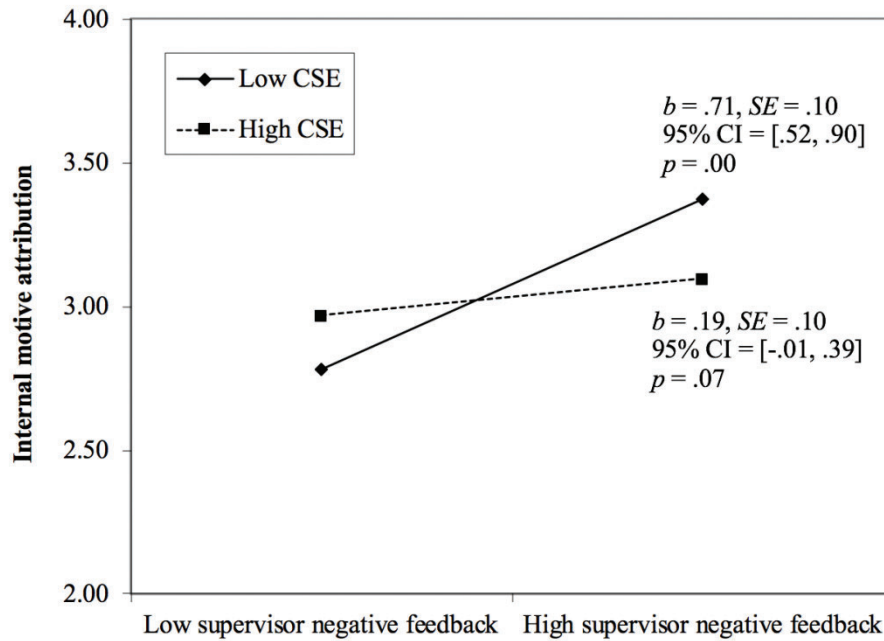
Figure 3. The moderating effect of CSE on the relationship between supervisor negative feedback and internal motive attribution (Study 1)

We further tested Hypotheses 3 and 4 by computing the index of moderated mediation and conditional indirect effects. Table 3 summarizes the results of conditional indirect effects at the higher and lower levels of the moderator (i.e., CSE). First, results indicate that CSE significantly strengthened the indirect effect of negative feedback on motivation to learn through external attribution (index = .03, 95% CI = [.01, .06]). The indirect effect was positive when CSE was high (.04, 95% CI = [.01, .08]) and nonsignificant when it was low (.00, 95% CI = [-.02, .03]). Second, CSE significantly weakened the indirect effect of negative feedback on motivation to learn through internal attribution (index = .030, 95% CI = [.004, .072]). Specifically, the indirect effect was negative (-.06, 95% CI = [-.12, -.01]) when CSE was lower, but was nonsignificant (-.02, 95% CI = [-.04, .00]) when it was higher. Thus, H3 and H4 were supported.

Table 3. Bootstrapping results of moderated mediation effects

	Negative feedback → External attribution → Motivation to learn		Negative feedback → Internal attribution → Motivation to learn	
	Indirect effect	95% CI	Indirect effect	95% CI
Study 1				
Higher CSE (+1 *SD*)	.04	[.01, .08]	-.02	[-.04, .00]
Lower CSE (-1 *SD*)	.00	[-.02, .03]	-.06	[-.12, -.01]
Study 2				
Higher CSE (+1 *SD*)	.06	[.02, .09]	-.00	[-.01, .01]
Lower CSE (-1 *SD*)	-.01	[-.04, .03]	-.019	[-.042, -.003]

5. Study 2: Methods

We conducted Study 2 for three reasons: First, Study 1 was conducted using a sample from the USA, which may engender concerns regarding the generalizability of the results, as a country's culture may influence the type of attribution that employees make about organizational practices (Chiang and Birtch, 2007). Therefore, it is important to determine whether the pattern of results is replicated in a study in a different cultural environment. Second, despite its advantages, the use of online panel data can be controversial as there may be systematic difference between participants who frequently engage in online surveys and those who rarely do (Porter et al., 2019). A complementary study in a naturalistic field setting with more control over participant selection would help to overcome such potential limitations. Third, although we focus on employees' motivation to learn as the outcome, that variable is largely intra-psychic and more robust evidence is helpful in examining whether employee performance increases after their motivation rises. A second study in a specific organization enabled us to collect objective data about learning performance, thereby testing the consequences of feedback and attribution on actual learning outcomes.

5.1 Sample and procedure

The data were collected from nurses in a medium-sized general hospital in southern China. We selected nurses for two reasons. First, professional lifelong learning is essential

for medical staff to adjust to new technologies and procedures, and to provide quality service (Billett and Newton, 2012; Nikula, 1999). Second, nurses work with head nurses as their supervisors, and have frequent communications with them. Poor performance by a nurse can lead to serious harm or even the death of a patient, making negative feedback necessary and common in this occupational group. Therefore, the healthcare sector and nurses specifically are a highly relevant and significant setting in which to examine the research question.

Surveys were conducted during November and December of 2019. We distributed and collected questionnaires with the assistance of the human resource manager in this hospital. Included with each survey was a cover letter that provided information about the purpose of the study, assured the participants that data would remain confidential, and that they could withdraw at any time. Consistent with Study 1, three waves of surveys were conducted with a two-week interval between each; where a participant gave the same response across all variables in the first survey, we excluded them from follow-up surveys. Data relating to specific variables were collected in the same sequence as Study 1, except for CSE data. Given the temporal stability of CSE (Judge and Kammeyer-Mueller, 2011), we collected data about CSE at Time 2 to test whether the moderating effects remain. Each participant received a gift valued around US$3 for completing each survey. In this hospital, the "Three-Basic Exam", an exam of basic theories, knowledge, and technologies, was conducted for all nurses every six months. We accessed the scores for the participants on two adjacent exams, held in July 2019 and January 2020.

We received valid responses from 329 nurses at Time 1 (valid response rate 85.2%), 314 nurses at Time 2 (95.4%), and 302 nurses at Time 3 (96.2%). Attrition analysis indicated participants did not differ across time along variables. Among the final sample of 302 nurses, 94.0% were female, 40.2% had completed high school or had a college degree, 58.4% had a

bachelor's degree, and 1.4% had a master's degree. Their average age was 29.1 years (SD = 5.3), and the average dyadic tenure was 4.8 years (SD = 3.9).

5.2 Measures

We measured supervisor negative feedback, CSE, external and internal attribution, and motivation to learn using the same scales as in Study 1. Notably, the CSE scale has been validated in the Chinese context (Rode et al., 2012; Zhang et al., 2020). The Cronbach's α results of these scales in Study 2 are .89, .90, .90, .93, and .93 respectively.

Objective learning performance. Participants' scores on the mid-year exam in July 2019 (i.e., initial performance) and on the end-of-year exam in January 2020 (i.e., subsequent performance) were used as measures of learning performance. Grades varied from 0 to 100, with a result of less than 60 constituting failing the exam.

Control variables. Consistent with Study 1, we included supervisor positive feedback as a control variable (Cronbach's α = .85). We controlled for initial performance in the analysis of learning performance, which allowed us to examine change in this construct as a function of negative feedback and attribution. As with Study 1, we did not control for any demographic variables in these analyses.

6. Study 2: Results

Confirmatory factor analysis. Consistent with Study 1, results suggest the theorized six-factor model provides an adequate fit for the data (χ^2(194) = 539.18, p < .01, SRMR = .06, RMSEA = .08, CFI = .93, TLI = .92), and fit better than alternative models (e.g., a five-factor model that combined two types of attributions, χ^2(199) = 1112.52, SRMR = .10, RMSEA = .12, CFI = .81, TLI = .78; a five-factor model that combined negative and positive feedback, χ^2(199) = 1508.81; SRMR = .15; RMSEA = .15; CFI = .73; TLI = .69).

Descriptive analysis. As shown in Table 1, employee external attribution was positively correlated with motivation to learn (r = .35, p < .01), and internal attribution was negatively

correlated with motivation to learn ($r = -.31$, $p < .01$), consistent with Study 1. Notably, negative feedback was positively correlated with external attribution ($r = .14$, $p < .05$), while unrelated to internal attribution ($r = .10$, *n.s.*), which is the opposite to the US sample.

Hypothesis testing. Supporting Hypothesis 1 and 2, negative feedback significantly interacted with CSE in predicting both external attribution ($b = .23$, $p < .01$, Figure 4) and internal attribution ($b = -.14$, $p < .05$, Figure 5). Simple slope analysis shows negative feedback is positively associated with external attribution when CSE is high ($b = .23$, $p < .01$) but nonsignificant when it is low ($b = -.03$, *n.s.*). On the other hand, negative feedback is positively associated with internal attribution when CSE is low ($b = .17$, $p < .01$) rather than when it is high ($b = .01$, *n.s.*). The CSE and negative feedback interaction term explains 4% and 1% of variance in external and internal attribution respectively.
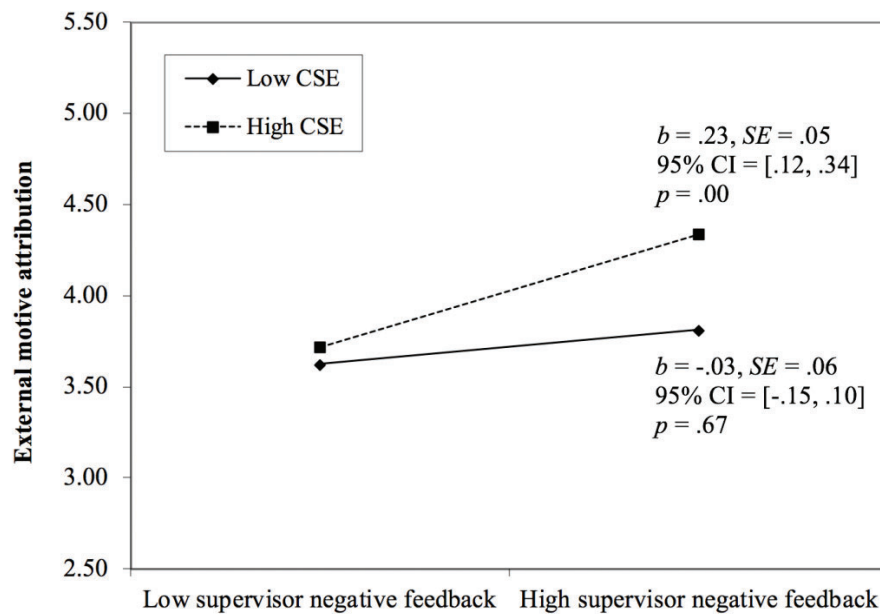
Figure 4. The moderating effect of CSE on the relationship between supervisor negative feedback and external motive attribution (Study 2)
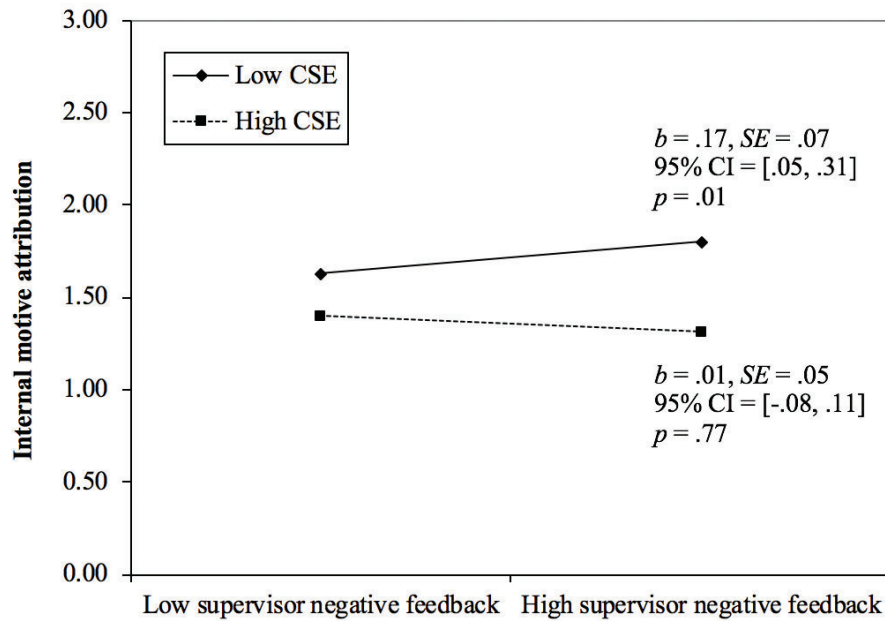
Figure 5. The moderating effect of CSE on the relationship between supervisor negative feedback and internal motive attribution (Study 2)

As shown in Table 3, the conditional indirect effect via external attribution was stronger when CSE was high (.06, 95% CI = [.02, .09]) than when it was low (-.01, 95% CI = [-.04, .03]). In contrast the conditional indirect effect via internal attribution was stronger when CSE was low (-.019, 95% CI = [-.042, -.003]) than when it was high (-.00, 95% CI = [-.01, .01]). These conditional indirect effects were significantly different (index of moderated mediation, for external attribution: .05, 95% CI = [.02, .10]; for internal attribution: .015, 95% CI = [.001, .038]), providing support for Hypotheses 3 and 4. As shown in Table 2, motivation to learn was further associated with increased learning performance ($b = 2.26$, $p < .05$). The results also suggest our model explained 20% of the variance in motivation to learn, and 12% of the variance in learning performance. In sum, the findings from Study 2 replicated and extended the findings from Study 1, in that it was shown that employees' motivation to learn had a positive effect on improving their actual learning performance.

7. General discussion

This research tested a model of the interactive influences of supervisor negative feedback and employee core self-evaluation (CSE) on the types of motivation attribution that employees make about the feedback, and how those attributions are related to employees' motivation to learn. In two survey studies, one in the USA and one in China, we found that CSE influences the extent to which employees make internal or external attributions about negative feedback, and therefore shape how negative feedback increases or decreases motivation to learn, which in turn leads to a higher or lower learning performance.

7.1 Theoretical implications

This research makes several theoretical contributions to the feedback literature. First, the findings explain the effects of negative feedback by revealing the attributions underlying employees' responses. Despite the large volume of research on this topic, few studies have succeeded in clarifying the effects of negative feedback (Mulder and Ellinger, 2013). Previously established mediating variables, such as perceived self-efficacy (Dimotakis et al., 2017; Ilies et al., 2010; Hu et al., 2018) and negative affect (Belschak and Den Hartog, 2009; Ilies et al., 2010; Young et al., 2017), are useful for understanding the general consequences of negative feedback. However, they do not adequately address individuals' different reactions, ignoring the multiple, sometimes even conflicting, mechanisms underlying negative feedback (Zingoni and Byron, 2017). By introducing and assessing the role of different types of attributions, the findings reveal the complexity of the processes that influence negative feedback, and may partially account for the mixed results found in the literature on feedback.

Attribution refers to an observer's causal ascriptions for their own or others' behaviors, or more directly, *why* the events that people encounter *have occurred* (Heider, 1958). The attribution perspective has been widely investigated in the performance appraisal and

feedback process, and two streams of research with different foci have emerged. The first, which includes the majority of the literature, looks at "why *I* received this negative feedback", or, more directly, "why *I* performed poorly". It is about how employees explain the causes of poor performance (see review by Hewett et al., 2018). The second relatively rare research stream focuses on "why *my supervisor* gave me negative feedback". Here the attributions are the explanations that employees make for the causes of the supervisor behavior, that is, the motives behind the negative feedback (Fedor et al., 1989, 1990; Hempel, 2008; Wu and Leung, 2000). Motive attribution represents an interpretive filter and is the premise of the interpretation of actual behaviors (Ferris et al., 1995; Fishbein and Ajzen, 1975). Therefore, only after identifying a supervisor's motive as not being personal can employees perceive feedback as information about their performance and proceed to further analyze the causes of this performance. Consistent with the theorizing, our results reveal the opposing effects of motive attribution, which highlights the importance of motive in determining the nature of negative feedback interpretation.

Although we did not hypothesize a direct relationship between negative feedback and motivation attribution, we found some interesting results across the two samples. According to the zero-order correlations (Table 1), negative feedback was significantly associated with only internal attribution ($r = .43$, $p < .01$) in the US sample, while being significantly associated with only external attribution ($r = .14$, $p < .05$) in the Chinese sample. This finding may be explained by cultural differences between the USA and China. Employees in a hierarchical cultural system are more likely to accept and rationalize their manager's criticism than those in an egalitarian system (Bond et al., 1985). Following this logic, negative feedback may be perceived by Chinese employees as resulting from "tough love" rather than from supervisor-internal reasons. Indeed, negative feedback is encouraged in practice and widely used by Chinese supervisors at work. Many Chinese proverbs—such as

"Advice is least heeded when most needed" and "Strict teachers produce outstanding students"—also legitimize and rationalize negative feedback.

A second theoretical contribution made by our study is that it builds on an emerging research stream about the contingencies of the effectiveness of negative feedback. We extend previous findings that employees with higher CSE are more motivated to improve after negative feedback (Bono and Colbert, 2005). Specifically, for employees with high CSE, supervisor negative feedback has a "bright side" and is positively correlated with external motivation attribution, which in turn facilitates learning. However, for employees with low CSE, supervisor negative feedback exhibits a "dark side", as it increases internal motivation attribution, which hampers learning. Previous research on causal attribution of performance suggests that people with high CSE are less likely to blame themselves for negative outcomes (e.g., Martinko et al., 2006; Thomas and Mathieu, 1994). Our results further reveal that those employees are also less likely to blame their supervisors for giving negative feedback. In doing this, our investigation also responds to Deng and Leung's (2014) call for more research on individual differences as moderators for the processes by which employees develop perceptions of organizational agents.

Notably, there is a competing perspective on CSE's moderating effects. According to self-verification theory (Swann, 1987), people are motivated to maintain stable self-views to achieve a sense of coherence. Negative evaluation from others conflicts with the self-views of high-CSE people, leading them to reject the information in order to re-establish the consistency of their self-concept (e.g., Booth et al., 2019; Kacmar et al., 2009; Shantz and Booth, 2014). Therefore under this theory, they may blame their supervisor when they are facing the threat presented by negative feedback. However, such theorizing can only be established when employees perceive that information violates their self-view and when they have little control over the situation. Given their lack of dependence on external cues, high-

CSE employees are less likely to take negative evaluation personally (Zhang et al., 2014). Even in a threatening situation, high-CSE employees first tend to redouble their efforts to rectify the situation, and become passive and escape from the environment only when they cannot change the situation (Shantz and Booth, 2014). We infer that positive self-evaluators perceive supervisor negative feedback as merely information about their performance and believe they can do something to improve that performance, therefore supporting the adaptive effects of CSE in our research. Nonetheless, future studies might consider manipulating employees' ability to control the situation to which the feedback refers and directly measure self-verification processes to investigate the effects of CSE.

7.2 Practical implications

These results have several practical implications for managers and organizations. First, our study highlights the powerful influence of the way in which employees perceive the intentions behind feedback. Our results show that the feedback as well as the way that employees attribute the motivation for feedback can explain around 20% of the variance in employee motivation to learn (22% in Study 1 and 20% in Study 2). However, even if supervisors deliver negative feedback only with constructive intentions, there is no guarantee that those intentions will be uniformly perceived as constructive (Fedor et al., 1989). To enhance the effectiveness of negative feedback, supervisors need to directly address such perceptions to ensure that employees attribute the feedback to the supervisor's desire to help the company or encourage the employee to improve. In reality, supervisors often hesitate to deliver undesirable information in order to avoid potential conflicts, making negative feedback ambiguous (Audia and Locke, 2003). To ensure that employees view their criticisms clearly and as legitimate, supervisors may benefit from training in communication skills and linguistic strategies for the provision of feedback. Supervisors could also build a sense of trust by consistently behaving constructively. For example, just interpersonal

treatment (Leung et al., 2001) and making employees feel they are organizational insiders (Chen et al., 2017) have been proven to be effective in strengthening employees' positive attributions.

Second, the study highlights the critical role of CSE in determining the effectiveness of negative feedback. To avoid the adverse effects of negative feedback, organizations and managers are encouraged to find ways to enhance employees' positive self-assessment. High-CSE applicants should receive more attention in organizations' recruitment and selection processes. Organizations can also design interventions to assist employees with low CSE, such as self-efficacy training (McNatt and Judge, 2008) and self-restorative activities (Wiesenfeld et al., 1999). Such training can help employees boost their self-confidence and resilience. Supervisors should also pay particular attention to employees' CSE when giving negative feedback.

Third, our study has implications for individuals who have difficulties in dealing with negative feedback. Since employees are less familiar with the circumstances surrounding supervisor's decisions, they tend to attribute supervisor behaviors to internal factors like a grumpy personality (also known as the fundamental attribution error; Ross, 1977). Even when supervisors give feedback out of kindness, such bias may blind employees, stopping them from understanding supervisors' actual intentions. Therefore, employees should be aware that their intuitive attribution may not always hold true. Organizations could implement training programs for employees to minimize their attribution bias, such as role playing and experiential exercises (Martinko and Gardner, 1987).

7.3 Limitations and future research

The design of these two survey studies did not allow us to examine the causality of the hypothesized model. Although we hypothesized the impact of feedback on employees' motivation to learn from an attribution perspective, it could also be that motivation to learn

enables employees to achieve a higher performance and affects the feedback they receive. Indeed, as feedback is provided as part of an ongoing process (Anseel et al., 2015), the relationship between feedback and motivation to learn may be cyclical. Through different attributions, negative feedback would then enhance or impair learning motivation, which in turn lessens or strengthens the possibility of additional negative feedback. To examine these possibilities, a longitudinal research design and cross-lagged modeling are required before drawing more definitive conclusions.

A second limitation is that we focused on only two broad types of attribution that employees make about negative feedback. Although the classification is based on the theoretical distinction developed by Heider (1958), there are other types of attribution that may influence feedback effectiveness. Fedor et al. (1989) summarized 36 specific purposes for feedback and built the feedback structure around four major themes: "(a) to dominate the subordinate, (b) to focus subordinate attention on unit standards, (c) to support subordinates, and (d) to urge subordinates to increase productivity" (p. 85). Compared to the dichotomy of attribution in this study, such detailed taxonomies may enable the examination of particular consequences associated with each type of attribution. For instance, although (b), (c), and (d) are all constructive external attributions, (c) is more relation-oriented while (b) and (d) are more task-oriented (Yukl, 1998). We can expect the former attribution will be more strongly related to employee satisfaction, while the latter two will be more strongly perceived by employees as relating to supervisor performance (Judge et al., 2004). Also, relation-oriented attribution may be more effective for employees who value interpersonal relations, compared with those who value achievements (Ehrhart and Klein, 2001). Future research could further investigate how and when particular motive attributions explain differential individual responses.

Third, researchers are encouraged to consider the potential for different attributions to combine in unique ways to shape outcomes. Employees can make multiple, simultaneous attributions and generate an implicit confidence level for each attribution (Eberly et al., 2011). However, to date, researchers have focused almost exclusively on how each attribution functions to predict feedback outcomes in isolation, ignoring the possibility that employees could express certain profiles in making mixed attributions. For example, an employee may feel their supervisor gave negative feedback to facilitate performance, but also be suspicious that the supervisor was not in a good mood. Such an employee's subsequent motivation and behavior may differ from that of those who strongly believe that the negative feedback was purely performance-driven. Given the heterogeneity of attribution profiles, latent profile analysis could be used to identify potential profiles and detect their patterns of relationship with other variables (Gabriel et al., 2015).

Finally, the effect sizes we observed in this study are not large (especially as the study's sample size is not large), suggesting there is much more going on to determine when negative feedback leads to different motive attributions. Although we revealed the role of recipient characteristics in this study, searching for other moderators will further deepen our understanding of the influences of negative feedback. Given the critical roles that supervisors and coworkers fill in an organizational context, their characteristics may significantly influence employees' interpretations of feedback. One theoretically relevant moderator, for example, is the quality of the relationship between supervisors and employees, such as leader-member exchange (LMX) and supervisor-subordinate guanxi. These constructs represent employees' relational schemas and guide them to construct new experiences with supervisors (Huang et al., 2008). Employees with high-quality supervisor relationships are motivated by reciprocity norms to positively represent their supervisors (Sue-Chan et al., 2011), which leads to external attributions about negative feedback. Emerging research on

the dark side of LMX could be used to generate opposing hypotheses. Employees with a high-quality relationship generally believe their supervisor will provide adequate support to help them succeed (Xu et al., 2015). Frequent negative feedback may be perceived as unexpected and produce a sense of betrayal (Restubog et al., 2010), which leads to hostile attribution. These contradictory hypotheses indicate the need for more research to understand how LMX affects employees' responses towards negative feedback.

8. Conclusion

Understanding why and how supervisor negative feedback influences employee motivation to learn is of both theoretical and practical significance. By applying the motive attribution perspective, we have been able to conclude that supervisor negative feedback elicits different types of motive attributions for high- and low-CSE employees, and that these attributions are important for those employees' motivation to learn. These findings advance the current understanding of how employees appraise and respond to negative feedback and have important implications for supervisors and organizations that wish to ensure the effectiveness of negative feedback.

9. References

Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Thousand Oaks, CA: Sage.

Anseel, F., Beatty, A. S., Shen, W., Lievens, F., & Sackett, P. R. (2015). How are we doing after 30 years? A meta-analytic review of the antecedents and outcomes of feedback-seeking behavior. *Journal of Management*, *41*(1), 318–348.

Ashford, S. J. (1986). Feedback-seeking in individual adaptation: A resource perspective. *Academy of Management Journal*, *29*(3), 465−487.

Atwater, L. E., Camobreco, J. F., Dionne, S. D., Avolio, B. J., & Lau, A. N. (1997). Effects of rewards and punishments on leader charisma, leader effectiveness and follower reactions. *The Leadership Quarterly*, *8*(2), 133–152.

Audia, P. G., & Locke, E. A. (2003). Benefiting from negative feedback. *Human Resource Management Review*, *13*(4), 631−646.

Bagozzi, R. P., & Edwards, J. R. (1998). A general approach for representing constructs in organizational research. *Organizational Research Methods*, *1*(1), 45–87.

Bannister, B. D. (1986). Performance outcome feedback and attributional feedback: Interactive effects on recipient responses. *Journal of Applied Psychology*, *71*(2), 203–210.

Belschak, F. D., & Den Hartog, D. N. (2009). Consequences of positive and negative feedback: The impact on emotions and extra-role behaviors. *Applied Psychology*, *58*(2), 274−303.

Bezuijen, X. M., van Dam, K., van Den Berg, P. T., & Thierry, H. (2010). How leaders stimulate employee learning: A leader-member exchange approach. *Journal of Occupational and Organizational Psychology*, *83*(3), 673−693.

Bezuijen, X. M., Van Den Berg, P. T., Van Dam, K., & Thierry, H. (2009). Pygmalion and employee learning: The role of leader behaviors. *Journal of Management*, *35*(5), 1248−1267.

Billett, S., & Newman, J. (2010). Learning practice: Conceptualising professional lifelong learning for the health-care sector. In H. Bradbury, N. Frost, S. Kilminster & M. Zukas (Eds.), *Beyond reflective practice: New approaches to professional lifelong learning* (pp. 172−185). London: Routledge.

Bond, M. H., Wan, K. C., Leung, K., & Giacalone, R. A. (1985). How are responses to verbal

    insult related to cultural collectivism and power distance? *Journal of Cross-Cultural*

    Psychology,*16*(1), 111−127.

Bono, J. E., & Colbert, A. E. (2005). Understanding responses to multi-source feedback: The

    role of core self-evaluations. *Personnel Psychology*, *58*(1), 171−203.

Booth, J. E., Shantz, A., Glomb, T. M., Duffy, M. K., & Stillwell, E. E. (2019). Bad bosses

    and self-verification: The moderating role of core self-evaluations with trust in

    workplace management. *Human Resource Management*. doi: 10.1002/hrm.21982.

Brett, J. F., & Atwater, L. E. (2001). 360° feedback: Accuracy, reactions, and perceptions of

    usefulness. *Journal of Applied Psychology*, *86*(5), 930−942.

Burton, J. P., Taylor, S. G., & Barber, L. K. (2014). Understanding internal, external, and

    relational attributions for abusive supervision. *Journal of Organizational*

    Behavior, *35*(6), 871−891.

Cannon, M. D., & Witherspoon, R. (2005). Actionable feedback: Unlocking the power of

    learning and performance improvement. *Academy of Management*

    Perspectives, *19*(2), 120−134.

Carlson, K. D., & Wu, J. (2012). The illusion of statistical control: Control variable practice

    in management research. *Organizational Research Methods*, *15*(3), 413–435.

Carver, C. S., & Scheier, M. F. (1998). *On the self-regulation of behavior*. New York:

    Cambridge University Press.

Chang, C. H., Ferris, D. L., Johnson, R. E., Rosen, C. C., & Tan, J. A. (2012). Core self-

    evaluations: A review and evaluation of the literature. *Journal of Management*, *38*(1),

    81–128.

Chen, X., Liao, J., Wu, W., & Zhang, W. (2017). Perceived insider status and feedback

    reactions: A dual path of feedback motivation attribution. *Frontiers in Psychology*, *8*,

    668.

Cheung, J. H., Burns, D. K., Sinclair, R. R., & Sliter, M. (2017). Amazon Mechanical Turk in

    organizational psychology: An evaluation and practical recommendations. *Journal of*

    Business and Psychology, *32*(4), 347−361.

Chiang, F. F., & Birtch, T. A. (2007). Examining the perceived causes of successful

    employee performance: An east-west comparison. *The International Journal of*

    Human Resource Management, *18*(2), 232–248.

Colquitt, J. A., LePine, J. A., & Noe, R. A. (2000). Toward an integrative theory of training

    motivation: A meta-analytic path analysis of 20 years of research. *Journal of Applied*

    Psychology, *85*(5), 678−707.

Dasborough, M. T., & Ashkanasy, N. M. (2002). Emotion and attribution of intentionality in

    leader-member relationships. *The Leadership Quarterly*, *13*(5), 615−634.

Deng, H., & Leung, K. (2014). Contingent punishment as a double-edged sword: A dual-

    pathway model from a sense-making perspective. *Personnel Psychology*, *67*(4),

    951−980.

Dimotakis, N., Mitchell, D., & Maurer, T. (2017). Positive and negative assessment center

    feedback in relation to development self-efficacy, feedback seeking, and

    promotion. *Journal of Applied Psychology*, *102*(11), 1514−1527.

Donovan, J. J., & Williams, K. J. (2003). Missing the mark: Effects of time and causal

    attributions on goal revision in response to goal-performance discrepancies. *Journal*

    of Applied Psychology, *88*(3), 379−390.

Eberly, M. B., Holley, E. C., Johnson, M. D., & Mitchell, T. R. (2011). Beyond internal and external: A dyadic theory of relational attributions. *Academy of Management Review*, *36*(4), 731−753.

Ehrhart, M. G., & Klein, K. J. (2001). Predicting followers' preferences for charismatic leadership: The influence of follower values and personality. *The Leadership Quarterly*, *12*(2), 153−179.

Fedor, D. B., Buckley, M. R., & Eder, R. W. (1990). Measuring subordinate perceptions of supervisor feedback intentions: Some unsettling results. *Educational and Psychological Measurement*, *50*(1), 73−89.

Fedor, D. B., Eder, R. W., & Buckley, M. R. (1989). The contributory effects of supervisor intentions on subordinate feedback responses. *Organizational Behavior and Human Decision Processes*, *44*(3), 396−414.

Feitosa, J., Joseph, D. L., & Newman, D. A. (2015). Crowdsourcing and personality measurement equivalence: A warning about countries whose primary language is not English. *Personality and Individual Differences*, *75*, 47−52.

Ferris, G. R., Bhawuk, D. P. S., Fedor, D. F., & Judge, T. A. (1995). Organizational politics and citizenship: Attributions of intentionality and construct definition. In M. J. Martinko (Ed.), *Advances in attribution theory: An organizational perspective* (pp. 231−252). Delray Beach, FL: St. Lucie Press.

Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.

Forgas, J. P., & George, J. M. (2001). Affective influences on judgments and behavior in organizations: An information processing perspective. *Organizational Behavior and Human Decision Processes*, *86*(1), 3−34.

Fulmer, C. A., & Ostroff, C. (2017). Trust in direct leaders and top leaders: A trickle-up model. *Journal of Applied Psychology*, *102*(4), 648−657.

Gabriel, A. S., Daniels, M. A., Diefendorff, J. M., & Greguras, G. J. (2015). Emotional labor actors: A latent profile analysis of emotional labor strategies. *Journal of Applied Psychology*, *100*(3), 863−879.

Gaddis, B., Connelly, S., & Mumford, M. D. (2004). Failure feedback as an affective event: Influences of leader affect on subordinate attitudes and performance. *The Leadership Quarterly*, *15*(5), 663−686.

Gardner, D. G., & Pierce, J. L. (2010). The Core Self-Evaluation scale: Further construct validation evidence. *Educational and Psychological Measurement*, *70*(2), 291−304.

Goel, S., Bell, G. G., & Pierce, J. L. (2005). The perils of Pollyanna: Development of the over-trust construct. *Journal of Business Ethics*, *58*(1–3), 203−218.

Green, T. D., Bailey, R. C., Zinser, O., & Williams, D. E. (1994). Causal attribution and affective response as mediated by task performance and self-acceptance. *Psychological Reports*, *75*, 1555−1562.

Harvey, P., Madison, K., Martinko, M., Crook, T. R., & Crook, T. A. (2014). Attribution theory in the organizational sciences: The road traveled and the path ahead. *Academy of Management Perspectives*, *28*(2), 128−146.

Heider, F. (1958). *The psychology of interpersonal relations*. New York: Wiley.

Hempel, P. S. (2008). Chinese reactions to performance feedback: Non-task attributions of feedback intentions. *Asia Pacific Journal of Human Resources*, *46*(2), 196−219.

Hewett, R., Shantz, A., Mundy, J., & Alfes, K. (2018). Attribution theories in Human Resource Management research: a review and research agenda. *The International Journal of Human Resource Management*, *29*(1), 87−126.

Hewett, R., Shantz, A., & Mundy, J. (2019). Information, beliefs, and motivation: The antecedents to human resource attributions. *Journal of Organizational Behavior*, *40*(5), 570−586.

Hu, S., Hood, M., & Creed, P. A. (2018). Negative career feedback and career outcomes: The mediating roles of self-regulatory processes. *Journal of Vocational Behavior*, *106*, 180−191.

Huang, X., Wright, R. P., Chiu, W. C., & Wang, C. (2008). Relational schemas as sources of evaluation and misevaluation of leader-member exchanges: Some initial evidence. *The Leadership Quarterly*, *19*(3), 266−282.

Ilgen, D. R., & Davis, C. (2000). Bearing bad news: Reactions to negative performance feedback. *Applied Psychology*, *49*(3), 550−565.

Ilgen, D. R., Fisher, C. D., & Taylor, M. S. (1979). Consequences of individual feedback on behavior in organizations. *Journal of Applied Psychology*, *64*(4), 349−371.

Ilies, R., Judge, T. A., & Wagner, D. T. (2010). The influence of cognitive and affective reactions to feedback on subsequent goals. *European Psychologist*, *15*(2), 121−131.

Judge, T. A., Erez, A., & Bono, J. E. (1998). The power of being positive: The relation between positive self-concept and job performance. *Human Performance*, *11*(2–3), 167−187.

Judge, T. A, & Kammeyer-Mueller, J. D. (2011). Implications of core self-evaluations for a changing organizational context. *Human Resource Management Review*, *21*(4), 331−341.

Judge, T. A., Erez, A., Bono, J. E., & Thoresen, C. J. (2003). The Core Self-Evaluation Scale: Development of a measure. *Personnel Psychology*, *56*(2), 303−331.

Judge, T. A., Locke, E. A., & Durham, C. C. (1997). The dispositional causes of job satisfaction: A core evaluations approach. *Research in Organizational Behavior*, *19*, 151−188.

Kacmar, K. M., Collins, B. J., Harris, K. J., & Judge, T. A. (2009). Core self-evaluations and job performance: The role of the perceived work environment. *Journal of Applied Psychology*, *94*(6), 1572−1580.

Kammeyer-Mueller, J. D., Judge, T. A., & Scott, B. A. (2009). The role of core self-evaluations in the coping process. *Journal of Applied Psychology*, *94*(1), 177−195.

Karasek, R. A. (1979). Job demands, job decision latitude, and mental strain: Implications for job redesign. *Administrative Science Quarterly*, *24*, 285−308.

Kelley, H. H. (1967). Attribution theory in social psychology. In D. Levine (Ed.), *Nebraska symposium on motivation (Vol. 15)* (pp. 192−238). Lincoln, NE: University of Nebraska Press.

Kelley, H. H., & Michela, J. L. (1980). Attribution theory and research. *Annual Review of Psychology*, *31*(1), 457−501.

Kim, Y. J., & Kim, J. (in press). Is negative feedback good or bad for creativity? The role of the direction of feedback flow. *Academy of Management Journal*.

Kluger, A. N., & DeNisi, A. (1996). The effects of feedback interventions on performance: A historical review, a meta-analysis, and a preliminary feedback intervention theory. *Psychological Bulletin*, *119*(2), 254−284.

Leung, K., Su, S., & Morris, M. W. (2001). When is criticism not constructive? The roles of fairness perceptions and dispositional attributions in employee acceptance of critical supervisory feedback. *Human Relations*, *54*(9), 1155−1187.

Li, C., Wu, K., Johnson, D. E., & Avey, J. (2017). Going against the grain works: An

   attributional perspective of perceived ethical leadership. *Journal of Business*

   Ethics, *141*(1), 87−102.

Li, G., Liu, H., Shang, Y., & Xi, Y. (2014). Leader feedback and knowledge sharing: A

   regulatory focus theory perspective. *Journal of Management & Organization*, *20*(6),

   749−763.

Liden, R. C., & Mitchell, T. R. (1985). Reactions to feedback: The role of

   attributions. *Academy of Management Journal*, *28*(2), 291−308.

Litman, L., Robinson, J., & Abberbock, T. (2017). TurkPrime.com: A versatile

   crowdsourcing data acquisition platform for the behavioral sciences. *Behavior*

   Research Methods, *49*(2), 433−442.

Liu, D., Liao, H., & Loi, R. (2012). The dark side of leadership: A three-level investigation of

   the cascading effect of abusive supervision on employee creativity. *Academy of*

   Management Journal, *55*(5), 1187−1212.

Liu, W., & Xiang, S. (2018). The positive impact of guilt: How and when feedback affect

   employee learning in the workplace. *Leadership & Organization Development*

   Journal, *39*(7), 883−898.

Major, D. A, Turner, J. E., & Fletcher, T. D. (2006). Linking proactive personality and the

   Big Five to motivation to learn and development activity. *Journal of Applied*

   Psychology, *91*(4), 927−935.

Manuti, A., Pastore, S., Scardigno, A. F., Giancaspro, M. L., & Morciano, D. (2015). Formal

   and informal learning in the workplace: A research review. *International Journal of*

   Training and Development, *19*(1), 1−17.

Martinko, M. J., Douglas, S. C., & Harvey, P. (2006). Attribution theory in industrial and

   organizational psychology: A review. In G. P. Hodgkinson & K. J. Ford (Eds.),

International review of industrial and organizational psychology (pp. 127−187).

    Chicester, England: Wiley.

Martinko, M. J., & Gardner, W. L. (1987). The leader/member attribution process. *Academy*

    of Management Review, *12*(2), 235−249.

Mason, W., & Suri, S. (2012). Conducting behavioral research on Amazon's Mechanical

    Turk. *Behavior Research Methods*, *44*(1), 1−23.

McNatt, D. B., & Judge, T. A. (2008). Self-efficacy intervention, job attitudes, and turnover:

    A field experiment with employees in role transition. *Human Relations*, *61*(6),

    783−810.

Meade, A. W., & Craig, S. B. (2012). Identifying careless responses in survey

    data. *Psychological Methods*, *17*(3), 437−455.

Mulder, R., & Ellinger, A. D. (2013). Perceptions of quality of feedback in organizations:

    Characteristics, determinants, outcomes of feedback, and possibilities for

    improvement: Introduction to a special issue. *European Journal of Training and*

    Development, *37*(1), 4−23.

Muthén, L. K., & Muthén, B. O. (1998-2015). *Mplus user's guide*. Los Angeles, CA: Muthén

    and Muthén.

Nikula, R. E. (1999). Organisational learning within health care organisations. *International*

    Journal of Medical Informatics, *56*(1–3), 61−66.

O'Malley, A. L., & Gregory, J. B. (2011). Don't be such a downer: Using positive

    psychology to enhance the value of negative feedback. *The Psychologist-Manager*

    Journal, *14*(4), 247−264.

Podsakoff, P. M., & Farh, J. L. (1989). Effects of feedback sign and credibility on goal

    setting and task performance. *Organizational Behavior and Human Decision*

    Processes, *44*(1), 45−67.

Porter, C. O., Outlaw, R., Gale, J. P., & Cho, T. S. (2019). The use of online panel data in management research: A review and recommendations. *Journal of Management*, *45*(1), 319−344.

Preacher, K. J., Ducker, D. D., & Hayes, A. F. (2007). Addressing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate Behavioral Research*, *42*(1), 185−227.

Regan, D. T. (1978). Attributional aspects of interpersonal attraction. In J. H. Harvey, W. Ickes & R. F. Kidd (Eds.), *New directions in attribution research*, *Vol. 2* (pp. 207−233). Hillsdale, NJ: Lawrence Erlbaum.

Reijntjes, A., Thomaes, S., Kamphuis, J. H., Bushman, B. J., De Castro, B. O., & Telch, M. J. (2011). Explaining the paradoxical rejection-aggression link: The mediating effects of hostile intent attributions, anger, and decreases in state self-esteem on peer rejection-induced aggression in youth. *Personality and Social Psychology Bulletin*, *37*(7), 955−963.

Restubog, S. L. D., Bordia, P., Tang, R. L., & Krebs, S. A. (2010). Investigating the moderating effects of leader-member exchange in the psychological contract breach–employee performance relationship: A test of two competing perspectives. *British Journal of Management*, *21*(2), 422−437.

Rode, J. C., Judge, T. A., & Sun, J. M. (2012). Incremental validity of core self-evaluations in the presence of other self-concept traits: An investigation of applied psychology criteria in the United States and China. *Journal of Leadership and Organizational Studies*, *19*(3), 326−340.

Ross, L. (1977). The intuitive psychologist and his shortcomings: Distortions in the attribution process. *Advances in Experimental Social Psychology*, *10*, 173−220.

Schaubroeck, J. M., & Shao, P. (2012). The role of attribution in how followers respond to the emotional expression of male and female leaders. *The Leadership Quarterly*, *23*(1), 27−42.

Scott, K. A., & Zweig, D. (2016). Understanding and mitigating cynicism in the workplace. *Journal of Managerial Psychology*, *31*(2), 552−569.

Shantz, A., & Booth, J. E. (2014). Service employees and self-verification: The roles of occupational stigma consciousness and core self-evaluations. *Human Relations*, *67*(12), 1439−1465.

Shao, B., Wang, L., & Tse, H. M. (2018). Motivational or dispositional? The type of inference shapes the effectiveness of leader anger expressions. *The Leadership Quarterly*, *29*(6), 709−723.

Steelman, L. A., Levy, P. E., & Snell, A. F. (2004). The feedback environment scale: Construct definition, measurement, and validation. *Educational and Psychological Measurement*, *64*(1), 165−184.

Sue-Chan, C., Chen, Z., & Lam, W. (2011). LMX, coaching attributions, and employee performance. *Group & Organization Management*, *36*(4), 466−498.

Swann, W. B., Jr. (1987). Identity negotiation. *Journal of Personality and Social Psychology*, *53*(6), 1038−1051.

Taris, T. W., Kompier, M. A., De Lange, A. H., Schaufeli, W. B., & Schreurs, P. J. (2003). Learning new behaviour patterns: A longitudinal test of Karasek's active learning hypothesis among Dutch teachers. *Work & Stress*, *17*(1), 1−20.

Thomas, K. M., & Mathieu, J. E. (1994). Role of causal attributions in dynamic self-regulation and goal processes. *Journal of Applied Psychology*, *79*(6), 812−818.

Thomas, K. W., & Pondy, L. R. (1977). Toward an "intent" model of conflict management among principal parties. *Human Relations*, *30*(12), 1089−1102.

Van De Voorde, K., & Beijer, S. (2015). The role of employee HR attributions in the relationship between high-performance work systems and employee outcomes. *Human Resource Management Journal*, *25*(1), 62−78.

Van Kleef, G. A., Homan, A. C., Beersma, B., Van Knippenberg, D., Van Knieppenberg, B., & Damen, F. (2009). Searing sentiment or cold calculation? The effects of leader emotional displays on team performance depend on follower epistemic motivation. *Academy of Management Journal*, *52*(3), 562–580.

Walter, S. L., Seibert, S. E., Goering, D., & O'Boyle, E. H. (2019). A tale of two sample sources: Do results from online panel data and conventional data converge? *Journal of Business and Psychology*, *34*(4), 425−452.

Walther, E., & Trasselli, C. (2003). I like her, because I like myself: Self-evaluation as a source of interpersonal attitudes. *Experimental Psychology*, *50*(4), 239−246.

Wang, Z., Xing, L., Xu, H., & Hannah, S. T. (2019). Not all followers socially learn from ethical leaders: The roles of followers' moral identity and leader identification in the ethical leadership process. *Journal of Business Ethics*. doi: 10.1007/s10551-019-04353-y.

Weiner, B. (2011). Ultimate and proximal determinants of motivation given an attribution perspective and the metaphors guiding attribution theory. *Group & Organization Management*, *36*(4), 526−532.

Weiner, B. (1986). *An attributional theory of motivation and emotion*. New York: Springer-Verlag.

Wiesenfeld, B. M., Brockner, J., & Martin, C. (1999). A self-affirmation analysis of survivors' reactions to unfair organizational downsizings. *Journal of Experimental Social Psychology*, *35*(5), 441−460.

Wu, P., & Leung, K. (2000). Negative feedback and responses from subordinates. *Journal of Human Resource Costing and Accounting*, *5*(1), 37−44.

Xu, A. J., Loi, R., & Lam, L. W. (2015). The bad boss takes it all: How abusive supervision and leader–member exchange interact to influence employee silence. *The Leadership Quarterly*, *26*(5), 763−774.

Young, S. F., Richard, E. M., Moukarzel, R. G., Steelman, L. A., & Gentry, W. A. (2017). How empathic concern helps leaders in providing negative feedback: A two-study examination. *Journal of Occupational and Organizational Psychology*, *90*(4), 535−558.

Yukl, G. (1998). *Leadership in organizations* (4th ed.). Upper Saddle River, NJ: Prentice-Hall.

Zhang, H., Kwan, H. K., Zhang, X., & Wu, L. Z. (2014). High core self-evaluators maintain creativity: A motivational model of abusive supervision. *Journal of Management*, *40*(4), 1151−1174.

Zhang, Y., Sun, J. M. J., Lin, C. H. V., & Ren, H. (2020). Linking core self-evaluation to creativity: The roles of knowledge sharing and work meaningfulness. *Journal of Business and Psychology*, *35*, 257−270.

Zhou, Z. E., Yan, Y., Che, X. X., & Meier, L. L. (2015). Effect of workplace incivility on end-of-work negative affect: Examining individual and organizational moderators in a daily diary study. *Journal of Occupational Health Psychology*, *20*(1), 117−130.

Zingoni, M., & Byron, K. (2017). How beliefs about the self influence perceptions of negative feedback and subsequent effort and learning. *Organizational Behavior and Human Decision Processes*, *139*, 50−62.

Conclusion to Study One

This first study in the thesis confirmed the critical role of attributions in transmitting the effects of negative feedback to employees. That is, employees will infer a supervisor's motives in giving negative feedback (i.e., motive attribution), and further formulate appropriate reactions. Employees may interpret the feedback as being given for performance-driven reasons (external attribution) and/or self-serving reasons on the part of the supervisor (internal attribution). We also identified an important boundary condition under which each attribution is more likely or less likely to emerge (i.e., employees' core self-evaluations). Supervisor negative feedback has a stronger relationship with external attribution when employee CSE is higher, whereas it has a stronger relationship with internal attribution when CSE is lower. External and internal attribution respectively enhance and impair an employee's motivation to learn. Taken together, the two parts of this first study highlight distinct types of cognitive appraisals in the feedback process, which can explain why different responses from employees can be associated with negative feedback.

Although cognitive states provide some insights into understanding the effectiveness of negative feedback, there is another important factor—employees' affective states. Indeed, previous research has generally supported the idea that negative feedback evokes negative affect in employees, which in turn influences their attitudes and behaviors. Therefore, in Study 2, we further explored the effectiveness of negative feedback from the perspective of affect.

Chapter 3

Feeling Shame: The Short-Term Effects of Supervisor Negative Feedback on Employee

Well-being and Performance

Introduction to Study Two

The second study of this thesis is a quantitative study focused on the affective process which employees undergo when given negative feedback. We examine this process at the within-person level to delineate how employees' emotions fluctuate in response to daily negative feedback from their supervisors. Unlike Study 1, which revealed the opposing effects of distinct types of attributions, Study 2 focuses on a single emotion—shame—to reveal the different effects it has on well-being and performance. By doing this, we can illuminate the variability that is found in employee responses to negative feedback. We further investigate leader-member exchange as the moderator and infer that employees may interpret feedback within the context of their global perception of the quality of their relationship with their supervisors. A daily diary study across five consecutive working days with 119 full-time employees was conducted to test the hypotheses. We aim to further broaden the research perspective on negative feedback beyond both Study 1 and the current literature. Study 2 also contributes to a more thorough understanding by investigating the within-person effects of negative feedback.

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[1] Although the physical meeting was cancelled as a result of coronavirus; a virtual meeting is currently under discussion.

Feeling Shame: The Short-Term Effects of Supervisor Negative Feedback on Employee

Well-being and Performance

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Abstract

Research has shown that negative feedback from supervisors tends to increase employees' negative affect, resulting in unfavorable outcomes. Despite calls for more research on emotions specifically, rather than on general affect, the utility of discrete emotions in feedback literature is largely overlooked. Drawing on affective events theory, we investigate the short-term effects of supervisor negative feedback on both employees' well-being and their performance, through the theoretically relevant emotion of shame. We tested the hypothesized model using a method involving 119 full-time employees keeping a twice-daily diary across five consecutive working days. The results show that at the within-person individual level, supervisor negative feedback is associated with employees' feelings of shame, and this increased their end-of-workday emotional exhaustion while improving their next-day in-role and extra-role performance. Further, individual-level leader-member exchange (LMX) moderated the relationship between negative feedback and shame, with the relationship being stronger under the condition of high LMX. Theoretical and practical implications are discussed.

Keywords: Emotional exhaustion, in-role and extra-role performance, leader-member exchange, shame, supervisor negative feedback.

1. Introduction

Emotions are inseparably intertwined with interpersonal interactions and have received considerable attention in leadership literature (Ashkanasy, Zerbe, & Härtel, 2019; Humphrey, Burch, & Adams, 2016; Tse et al., 2018). Specifically, leader behaviors may function as affective events and influence employees via their emotional reactions (Weiss & Cropanzano, 1996). Such emotion research has often assumed "the inherent goodness of positive emotion and the inherent badness of negative emotion" (Elfenbein, 2007, p. 325), leading to a tendency to categorize emotions into positive and negative valence. Theorists are now calling for an increased understanding of discrete emotions and their unique outcomes (e.g., Ashkanasy & Dorris, 2017; Lindebaum & Jordan, 2012), creating opportunities to investigate particular emotions in supervisor-subordinate interactions.

One key interaction in supervisor's work is to deliver feedback to their subordinates (Leung, Su, & Morris, 2001; London & Smither, 2002). Supervisors use negative feedback to highlight performance-goal disparities and to direct employees' effective behaviors and performance (Carver & Scheier, 1998; Kim & Kim, in press). While negative feedback may be given with the best of intentions, it is often portrayed as inefficacious, mainly due to the negative emotions it induces (O'Malley & Gregory, 2011). Negative feedback tends to increase recipients' negative affect, which further engenders unfavorable reactions such as low levels of commitment, citizenship, self-efficacy, and goal-setting (e.g., Belschak & Den Hartog, 2009; Ilies & Judge, 2005; Ilies, Judge, & Wagner, 2010; Young et al., 2017). Although valuable insights have been made, our understandings are still limited since feedback researchers have tended to rely heavily on the broad, nonspecific notion of negative affect, while overlooking the role of discrete emotions. This approach may limit our understanding of feedback reactions, since different emotions guide specific physiological, cognitive, and behavioral reactions (Gooty, Gavin, & Ashkanasy, 2009).

Given the above, this paper aims to investigate the discrete emotion of shame, which is a common emotional response to negative feedback (Poulson, 2000). Shame is a negative emotion arising when "people emotionally experience a failure to be moral, competent, or socially appropriate" (Leach & Cidam, 2015, p. 983). Shame is uniquely worthy of examination since, unlike other negative emotions, shame can lead to both maladaptive and adaptive responses (Daniels & Robinson, 2019; Murphy & Kiffin-Petersen, 2017). Linking negative feedback and shame can be helpful to illuminate the variability in the effectiveness of feedback. Current literature suggests that the intense and inward nature of shame leads to a lessening of employees' well-being (Kim, Thibodeau, & Jorgensen, 2011). In terms of their behavioral responses to shame, employees may either withdraw from the task at hand (Haidt, 2003; Tangney, 1995) or reattempt the task making amends (González-Gómez & Richter, 2015; Tangney et al., 1996). One way to disentangle the effects of shame is to specify the theoretical timing of influences, since the impacts of emotions on a short-term episode may differ from their cumulative impact over a longer period (Shockley et al., 2012). We extend the empirical approach from the dominant between-person level to the less common within-person level, to account for the proximal consequences of shame on a day-to-day basis. Integrating feedback research with within-person analysis also addresses another gap in the literature: the majority of feedback research has taken a static view and examined its influences using cross-sectional between-person designs (e.g., George & Zhou, 2001; Steelman & Rutkowski, 2004; Hu, Hood, & Creed, 2018). However, feedback is supposed to be context-specific and varies on a day-to-day basis (Steelman, Levy, & Snell, 2004), highlighting the importance of investigating how feedback fluctuates on a daily basis in real work settings.

The central aim of this paper is to examine the role of shame in the within-person relationship between negative feedback from a supervisor and employees' well-being and

work performance. The integration of well-being and performance responds to calls for "a more balanced approach that pays equal attention both to the managerial, functionalist perspective and to the concerns, involvement, and well-being of employees" (Paauwe, 2009, p. 130). We use employees' emotional exhaustion and in-role and extra-role performance to represent their well-being and level of performance. We develop a theoretical model suggesting that through proximal changes in shame, daily supervisor negative feedback has short-term effects on within-person variations in well-being and performance. Further, we identify under which condition the effects are more likely to emerge. Since the feedback process involves supervisors providing and employees receiving feedback, the relational context between supervisor and employee is likely to determine the emotional reactions towards negative feedback (Lam et al., 2017; Lonsdale, 2016). We investigate leader-member exchange (LMX) as the moderator and infer that employees may interpret feedback within the context of their global perception of the quality of their relationship with their supervisors (Sparrowe, Soetjipto, & Kraimer, 2006).

Our integrative model makes several theoretical contributions. First, we demonstrate the novel mediating role of shame in linking negative feedback and employee outcomes. Although previous literature has supported the mediating role of negative affect in transferring the effects of negative feedback, little has been done to examine the discrete emotional processes. By investigating the distinctive attributes of shame, we enrich our knowledge of feedback's emotional processes beyond the utility of generalized affect. Second, through the within-person investigation, the study broadens the existing research approach to feedback and contributes to a more thorough understanding of feedback effectiveness. We include daily variations in feedback to examine its short-term impacts on employees, which challenge the between-person approach that assumes feedback is stable over time. Third, current research mainly focuses on the source of feedback and the

characteristics of the recipient as contingent factors, largely ignoring the relationship between the two entities. This study extends the research by providing a relational context to understand the influences of negative feedback. By examining the moderating role of LMX, we illuminate the role of relationships in shaping employees' emotional responses toward feedback. Figure 1 depicts our theoretical model.
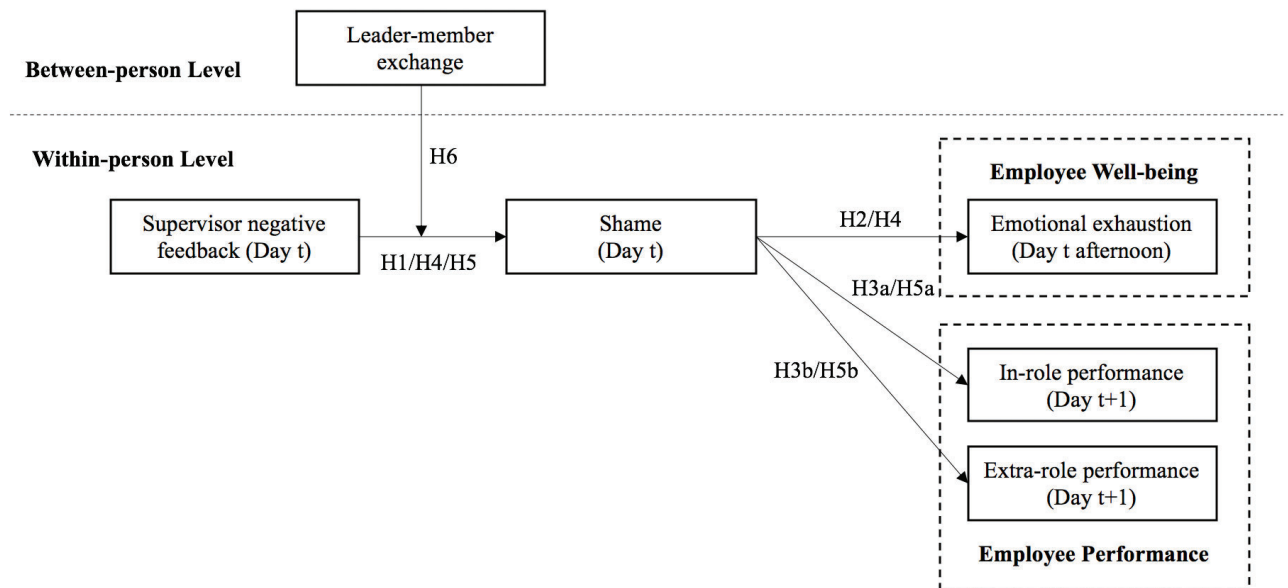
Figure 1. The research model and hypotheses

2. Hypothesis development

2.1 Supervisor negative feedback and employees' shame

Shame is a specific type of self-conscious emotion, which entails self-evaluation and self-reflection (Tracy, Robins, & Tangney, 2007). In organizational settings, shame is defined as "a painful emotion that arises when an employee evaluates a threat to the self when he or she has fallen off an important standard tied to a work-related identity" (Daniels & Robinson, 2019, p. 3). In a study asking participants to describe shame-inducing events, performance failure was the most common response (Keltner, 1996). Because supervisor negative feedback enables employees to recognize and appraise that their performance has deviated from organizational expectations, we expect that such feedback can evoke employees' shame.

According to the model of Daniels and Robinson (2019), shame is induced by a deviation from identity-related standards and the attribution of deviation to a faulty self. First, supervisor negative feedback is usually viewed as signaling a failure of goal pursuit, or a deviation from the correct or normal actions in fulfilling job tasks, and this poses a threat to employees' self-view and identity. Employees within a profession or occupation are expected to perform the prescribed tasks adequately, as required by the organization's norms and expectations. In turn, employees will bind themselves to, and internalize, those job duties, making them into personal standards. Compared with other identities in organizations, job identity is usually more salient for employees due to its greater exclusiveness and concreteness (Ashforth & Johnson, 2001). Feedback that contradicts the expected standards will, thus, put one's job identity at risk.

Second, supervisor negative feedback may have negative effects on employees' attribution of unsatisfactory performance. Work-related feedback can present a social persuasion process, providing individuals with information about their capabilities (Bandura, 1997). Negative feedback signals a lack of capacity and suggests a deficiency to employees in performing their jobs (Dimotakis, Mitchell, & Maurer, 2017); i.e., employees are likely to see the goal-performance deviation as a reflection of fault within themselves. Therefore, the more negative feedback an employee receives on a given day, the more identity threats and internal attribution for the poor performance there will be on that day and an increased likelihood of experiencing shame at work. There are also empirical results showing negative feedback arouses employees' negative affect, which includes shame as an important emotion (e.g., Belschak & Den Hartog, 2009; Ilies et al., 2010; Kernis & Johnson, 1990; Niemann et al., 2014). Based on the theoretical arguments and empirical evidence, we predict:

Hypothesis 1. Daily supervisor negative feedback is positively related to employees' shame at work on that day.

2.2 Shame and well-being

In this study, we use employees' emotional exhaustion to represent their daily well-being. Emotional exhaustion reflects "prolonged physical, affective, and cognitive strain at work" (Fritz & Sonnentag, 2006, p. 936), and is widely used as an important indicator of impaired well-being (e.g., Koopman, Lanaj, & Scott, 2016; Schmitt, Den Hartog, & Belschak, 2015; Shantz et al., 2016). We specifically focus on emotional exhaustion for several reasons. First, emotional exhaustion depicts the state of being emotionally drained and overextended, and is believed to be able to be predicted on the basis of the experience of negative emotions (i.e., shame in this case; Wright & Cropanzano, 1998). Second, emotional exhaustion is sensitive to self-regulation and the resource loss caused by tasks and self-evaluations (Grant & Sonnentag, 2010); therefore, it is relevant to the negative feedback and shame that the employee experiences.

We propose that employees feeling shame may engage in self-regulation efforts, which could tax their resources and cause emotional exhaustion, for three reasons. First, the experience of shame may create a need for emotional regulation, since employees have to overcome the inner resistance from negative emotions and redirect attention back to their work tasks (Deng, Coyle-Shapiro, & Yang, 2018). After negative feedback, employees need to suppress or neutralize their feeling of shame to be able to function normally at work. The need for emotional regulation, meanwhile, has been demonstrated to be a predictor of emotional exhaustion (Liu et al., 2015). Second, shame impairs the control of cognitive resources and disturbs the goal-directed attention required to carry out prescribed duties. In the face of shame, an employee's attention is directed at the self, shifting away from the prescribed tasks. The process involves a reallocation of cognitive resources, leaving fewer for task completion (Kluger & DeNisi, 1996). Therefore, additional effort has to be invested to achieve work goals, which leads to a loss of resources (Prem et al., 2016). Third, the intense

and inward focus on "bad self" in shame is likely to elicit ruminative processes (Kim et al., 2011). Coping with repetitive negative thinking results in compromised effortful control, leaving employees with resource loss and emotional exhaustion at the end of that day's work (White & Turner, 2014). Hence, we expect:

Hypothesis 2. Shame at work is positively correlated with end-of-workday emotional exhaustion on that day.

2.3 Shame and performance

To obtain a more comprehensive understanding of the effect of shame on performance, we include two categories of performance in which employees typically engage. The first is in-role performance, referring to officially required behaviors that directly serve the organization's formal goals on a day-to-day basis (Motowidlo & Van Scotter, 1994). The second category is extra-role performance, which is defined as discretionary and voluntary behaviors that are believed to promote the organization's functioning effectiveness (MacKenzie, Podsakoff, & Fetter, 1991). Evidence shows that within-person differences in job performance are substantial (Binnewies et al., 2009; Schreurs, van Emmerik, Günter, & Germeys, 2012). In this study, we expect both in-role and extra-role performance to show meaningful changes in line with shame on a daily basis.

Given the unpleasant nature of shame, it is not surprising that previous studies have mostly focused on the negative effects of shame on behaviors. To protect their threatened self-image, employees typically respond to shame with withdrawal and avoidance tendencies (Bohns & Flynn, 2013; Burmeister, Fasbender, & Gerpott, 2019). However, recent reviews noted that the behavioral outcomes of shame are more variable than widely presumed, and the positive potential of shame is often ignored (Daniels & Robinson, 2019). Against the prevailing view of shame, we expect a constructive approach to orientation as the management of episodic shame (Leach & Cidam, 2015; Murphy & Kiffin-Petersen, 2017).

Specifically, we argue that in the short term, shame motivates employees to engage in activities directed at repairing the damage to the self, including both self-improvement and social-improvement behaviors (Gausel & Leach, 2011).

First, employees' episodic shame facilitates their compensatory acts to repair their self-image, reflected as improved next-day in-role performance. Shame creates an awareness that one's self-image is in jeopardy, which further activates an immediate motivation to restore it (De Hooge, Zeelenberg, & Breugelmans, 2010; González-Gómez & Richter, 2015). Given that the shame experienced during a particular day is evoked by specific negative feedback on that day, employees may perceive that their performance failure and their self-image are repairable in the short term (De Hooge et al., 2010). To repair the threatened self-evaluation caused by poor performance that day, employees are most likely to approach the problem and increase task effort to fix it (Daniels & Robinson, 2019; Leach & Cidam, 2015). Therefore, an improved in-role performance could be expected the following day. There is also empirical evidence that shame increases the desire to make amends (Tangney et al., 1996) and self-change (Lickel et al., 2014), activates a willingness to reattempt a task after the initial failure (De Hooge et al., 2010), and facilitates innovation activities through a motivation to restore image (González-Gómez & Richter, 2015).

Second, employees may also respond to shame by exhibiting prosocial acts to enhance their social image, manifested as improved next-day extra-role performance. Apart from self-improvement, employees are further concerned with the improvement of social relations (Gausel & Leach, 2011). Employees' shame, then, is also expected to trigger impression management to improve their self-image (Bonner, Greenbaum, & Quade, 2017). To enhance their social image and bolster their reputation, employees engage in prosocial behaviors such as exemplification (Bonner et al., 2017), cooperation (De Hooge, Breugelmans, & Zeelenberg, 2008), and restitution (Gausel et al., 2012). Therefore, employees are likely to

voluntarily take extra tasks, help colleagues, attend organization functions, and exhibit greater extra-role performance after an experience of shame. By demonstrating these behaviors, employees hope their colleagues and organizations will view them as helpful and capable. Indeed, employees engage in voluntary behaviors such as organizational citizenship partly to signal their good image to those around them (Bolino, 1999; Bolino, Long, & Turnley, 2016).

Taken together, we make the following prediction regarding employees' shame and next-day performance. We choose to focus on next-day performance because the display of performance often involves rational analysis which requires a certain time interval. In contrast, we focus on end-of-workday emotional exhaustion on the same day as the shame occurs, since the affect-laden outcome of emotional exhaustion may occur more immediately than performance outcome.

Hypothesis 3. Shame at work is positively correlated with next-day in-role performance (a) and extra-role performance (b).

2.4 Mediating effects of shame

As suggested by affective events theory (AET), workplace events generate emotions, and emotions predict work attitudes and behaviors (Weiss & Cropanzano, 1996). Consistent with this argument, emotions have been found to mediate the relationship between work events and subsequent well-being and performance outcomes (Belschak & Den Hartog, 2009; Kabat-Farr, Cortina, & Marchiondo, 2018). Given this, we suggest a mediating role for shame in the effect on employee well-being and performance induced by supervisor negative feedback. That is, on days that employees receive more negative feedback from their supervisors, they are more likely to experience shame at work and subsequently be depleted at the end of the workday, but achieve higher performance in the next day. Therefore, we propose:

Hypothesis 4. Shame at work mediates the relationship between daily supervisor negative feedback and end-of-workday emotional exhaustion on that day.

Hypothesis 5. Shame at work mediates the relationship between daily supervisor negative feedback and next-day in-role performance (a) and extra-role performance (b).

2.5 Moderating effect of leader-member exchange

Another aim of the current study is to examine the potential moderating effect of LMX. LMX refers to the overall quality of the relationship between supervisors and employees, and therefore relates to the interpersonal nature of feedback (Lonsdale, 2016). Supervisor negative feedback represents a specific work event that can happen at any time during the interaction between a supervisor and an employee, while LMX sets an overall tone for the supervisor-employee relationship that is stabilized over time (Xu, Loi, & Lam, 2015). However, little attention has been paid to the interaction effects of these two different perspectives of leadership practice. LMX carries informational cues for employees and plays a fundamental role in defining the employees' work context (Furst & Cable, 2008; Graen & Uhl-Bien, 1995). Although receiving negative feedback from supervisors should have an effect on shame as described previously, it also seems likely that such an emotional reaction could vary across individuals, depending on the quality of LMX.

Given that shame is induced by a deviation from identity-related standards along with the attribution of deviation to a faulty self (Daniels & Robinson, 2019), LMX enhances the relationship between negative feedback and shame through exacerbating these two processes. First, employees in a high-quality LMX relationship may appraise supervisor negative feedback as a further deviation from a standard tied to their obligations. In a high-LMX situation, employees and supervisors are in a relationship of mutual obligation and reciprocity (Liden, Sparrowe, & Wayne, 1997). Negative feedback, especially from their supervisors, is more likely to threaten their social identity and lead to more shame. In contrast, a low-quality

LMX is mainly based on an employment contract and economic exchange. Employees generally feel there is "nothing to lose" and perceive negative feedback as less threatening to their self-image (Lian et al., 2012; Xu et al., 2015), leading, therefore, to less shame.

Second, employees in a high-quality LMX relationship may trust supervisors' feedback and attribute the poor performance to themselves. A high-quality LMX increases the attachment between the supervisor and employee, characterized by trust, commitment, support, and loyalty (Dulebohn et al., 2012). Employees tend to perceive feedback from their supervisors as reasonable and accurate in this case (Sue-Chan, Chen, & Lam, 2011). As a consequence, they are more likely to attribute the poor performance to themselves, which will further elicit shame. In contrast, when employees are treated as "out-group" members by their supervisor, they may attribute the negative feedback to external causes, such as to a supervisor's personal flaws (Hempel, 2008). In this scenario, employees may fail to notice their own errors in performance and so experience little shame. As such, the impact of negative feedback on shame is minimized in a low-LMX context but maximized in a high-LMX context:

Hypothesis 6. LMX moderates the within-person relationship between daily supervisor negative feedback and an employee's shame at work, such that this positive association is stronger when LMX is high rather than low.

3. Method

3.1 Participants

One hundred and thirty employees from multiple orgnaizations in the financial sector in China were recruited to participate in the current study. The invitation to participate was distributed to staff by the human resource departments of a number of banks and investment and insurance companies. Participation was voluntary, and participants were assured that their responses would be confidential. Of the 130 employees, 119 (91.5%) completed both

the initial assessment and the daily surveys. There were 49 male (41.2%) and 70 (51.8%) female participants, with an average age of 28.7 years ($SD = 5.5$), and the average dyad tenure of participants with their direct supervisor was 2.3 years ($SD = 3.7$). Most participants (95.8%) held at least a bachelor's degree. Participants received 100 Chinese yuan (approximately 15 US dollars) as a token of appreciation after the initial assessment.

3.2 Procedure

The data were collected in two phases using an online survey link via WeChat, a widely used instant communication application in China. In the first phase, participants completed a survey of LMX and demographic variables, referred to as the *initial assessment*. In the second phase, beginning one week later, daily diary surveys were completed on five consecutive workdays. Each morning, half an hour before the start of the workday at 9am, participants were sent a WeChat message with a link to the *daily morning survey*, where they reported their positive and negative affect that morning. Each afternoon at 10 minutes before the end of their workday at 5pm, respondents were sent another message with a link to the *daily afternoon survey*, where they reported the positive and negative feedback they received from supervisors that day, their levels of shame and emotional exhaustion, and their daily in-role and extra-role performance. The afternoon survey remained available to complete until 8pm. Participants did not respond to questions about positive and negative feedback on a particular day if they did not see or have contact with their supervisors that day. Participants chose a four-digit ID for themselves and entered this number in each survey to maintain confidentiality and anonymity.

Participants completed 585 out of the 595 daily surveys (119 participants × 5 days), a 98.3% response rate. Because the research model involves the relationships between feedback, shame, and emotional exhaustion (all measured in the afternoon survey of Day t), and performance (measured in the afternoon survey of Day t+1), morning and afternoon

surveys from Day t were matched with afternoon surveys from the following day (Day t+1).

As the survey was started on Monday, there was no next-day data for the Friday survey.

There were 55 observations with missing values in the daily feedback, and missing data were

handled using full information maximum likelihood estimation (FIML) with Mplus. This

resulted in 530 observations for the analyses.

3.3 Measures

We used the total scores of all items for each of the following variables.

3.3.1 Initial assessment

Leader-member exchange (LMX). We assessed the quality of LMX by asking

employees to respond to a set of statements about their relationship with their supervisors

using Graen and Uhl-Bien's (1995) LMX-7 scale. Sample items are "I have enough

confidence in my leader that I would defend and justify his/her decision if he/she were not

present to do so" (1 = *strongly disagree*, 6 = *strongly agree*) and "How would you

characterize your working relationship with your supervisor?" (1 = *extremely ineffective*, 6 =

extremely effective). Cronbach's alpha (α) was .90.

3.3.2 Daily morning survey

State positive and negative affect. We accessed state positive and state negative affect

using the 10-item international short form of the Positive and Negative Affect Schedule (I-

PANAS-SF) (Thompson, 2007). Every morning, participants were asked to indicate the

extent to which they were experiencing each state "right now" using a scale from 1 = *not at*

all to 6 = *very much*. The positive affect items were "determined", "alert", "attentive",

"inspired", and "active"; the negative affect items were "upset", "nervous", "hostile",

"ashamed", and "afraid".

3.3.3 Daily afternoon survey

Daily supervisor negative and positive feedback. We accessed daily supervisor feedback using an eight-item scale from Steelman et al. (2004). We revised the wording of the original scales to reflect the perceived frequency of negative and positive feedback. Sample items for negative and positive feedback are "Today, my supervisor told me that I made a mistake at work" and "Today, my supervisor praised my performance," respectively. Participants responded to these items using a scale from 1 = *never* to 6 = *many times*.

Shame. We accessed shame with a single item, "To what extent did you feel shame during today's work?" Single items to access discrete emotions are not only easier for participants to understand but also better reflect the intended content domain (Gabriel et al., 2019). Response options were on a scale from 1 = *not at all* to 6 = *very much*.

Emotional exhaustion. We accessed emotional exhaustion with five items from Koopman et al. (2016). A sample item is "I feel frustrated by my job right now". Participants were asked to indicate their agreement with the items that captured how they felt at the end of the workday using a scale from 1 = *strongly disagree* to 6 = *strongly agree*.

State in-role and extra-role performance. We measured state performance with six items from Schreurs et al. (2012). Sample items for in-role and extra-role performance are "Today, I performed well in my job by carrying out tasks as expected" and "Today, I voluntarily did more than was required of me," respectively. Participants responded to these items using a scale from 1 = *strongly disagree* to 6 = *strongly agree*.

3.4 Analytical strategy

To account for the nested nature of our data, we conducted analyses using hierarchical linear modeling (Raudenbush & Bryk, 2002) in Mplus Version 7.4. At level 1, there were repeated observations of state positive and negative affect, supervisor feedback, shame, emotional exhaustion, and in-role and extra-role performance. At level 2, there were

assessments of LMX and demographics. As recommended by Hofmann, Griffin, and Gavin (2000), we group-mean centered level 1 predictors based on participants and grand-mean centered level 2 predictors. Since emotional exhaustion addresses the experience at the end of the workday, while in-role and extra-role performance refer to the state during a given day, we regressed emotional exhaustion on feedback and emotion experience in the same day, and regressed performance on the previous day, controlling for the previous day's in-role and extra-role performance.

Mediation at the within-person level was tested using a Monte Carlo simulation procedure with 20,000 replications. This procedure was conducted using the open-source software R (available at http://www.quantpsy.org/medmc/medmc.htm). To test the cross-level moderation effect, we estimated a model including LMX as the level 2 predictor of the within-person random slope between daily supervisor negative feedback and shame. Employees' age, gender, and dyad tenure were controlled when testing cross-level moderation effects. Following the approach of Preacher, Curran, and Bauer (2006), we used the online calculator to conduct statistical tests of the simple slopes for the cross-level moderation effects (available at http://www.quantpsy.org/interact/hlm2.htm).

4. Results

4.1 Preliminary analysis

Before testing the hypotheses, we examined the within- and between-person variance of the daily measures across the five days by estimating a null model for each variable. As shown in Table 1, the proportion of within-person variance ranged from 37% to 54%, supporting the use of multilevel analysis. Importantly, daily supervisor negative and positive feedback showed significant within-person variation (both 42%), supporting our expectation that the level of feedback varies daily for each individual employee. Table 2 and Table 3

contain means, standard deviations, and zero-order correlations for all variables at the within-

person and between-person levels respectively.

Table 1. Percentage of within-person variance among daily variables

Daily variables	Intercept (b_{00})	Within-person variance (e^2)	Between-person variance (R^2)	% of within-person variance
Positive affect (Day t morning)	2.27**	.40**	.54**	43
Negative affect (Day t morning)	3.31**	.40**	.60**	40
Daily supervisor positive feedback (Day t)	3.41**	.47**	.65**	42
Daily supervisor negative feedback (Day t)	2.39**	.42**	.57**	42
Shame (Day t)	1.90**	.52**	.65**	44
Emotional exhaustion (Day t afternoon)	2.98**	.49**	.83**	37
In-role performance (Day t)	4.47**	.31**	.26**	54
Extra-role performance (Day t)	3.94**	.39**	.50**	44

Table 2. Within-person descriptive statistics and correlations

	M	SD	1	2	3	4	5	6	7	8
1. Positive affect	3.31	0.97	(.82)							
2. Negative affect	2.27	1.00	.19**	(.89)						
3. Daily supervisor positive feedback	3.46	1.04	.32**	-.06	(.95)					
4. Daily supervisor negative feedback	2.43	1.00	.18**	.42**	-.01	(.89)				
5. Shame	1.90	1.08	.19**	.54**	-.01	.59**				
6. Emotional exhaustion	2.97	1.14	-.14**	.41**	-.15**	.30**	.38**	(.92)		
7. Next-day in-role performance	4.46	0.75	.01	-.23**	.12*	-.28**	-.26**	-.16**	(.92)	
8. Next-day extra-role performance	3.92	0.95	.15**	-.04	.23**	-.04	.03	-.04	.45**	(.73)

N = 434-591 observations. Coefficient alpha estimates of reliability are in parentheses on the diagonal. Reliabilities were the mean alphas across five days of observation.

Table 3. Between-person descriptive statistics and correlations

	M	SD	1	2	3	4	5	6	7	8	9	10	11
1. Age	28.71	5.46											
2. Gender	1.59	0.49	-.25**										
3. Dyad tenure	2.25	3.72	.74**	-.13									
4. LMX	4.00	0.91	-.16	-.03	-.13	(.90)							
5. Aggregated positive affect	3.31	0.79	-.08	.00	-.12	.37**							
6. Aggregated negative affect	2.27	0.83	-.20*	.08	-.10	-.19*	.24**						
7. Aggregated supervisor positive feedback	3.39	0.91	-.07	.07	-.13	.50**	.45**	.57**					
8. Aggregated supervisor negative feedback	2.37	0.82	.00	.02	.04	-.18	.31**	.57**	.03				
9. Aggregated shame	1.90	0.87	-.21*	.10	-.14	-.12	.25**	.76**	.06	.77**			
10. Aggregated emotional exhaustion	2.98	0.97	-.11	.08	-.08	-.24**	-.20*	.55**	-.17	.33**	.46**		
11. Aggregated next-day in-role performance	4.46	0.58	.17	-.02	.11	.23*	-.02	-.45**	.24**	-.45**	-.51**	-.20*	
12. Aggregated next-day extra-role performance	3.93	0.81	.23*	-.03	.15	.26**	.27**	-.07	.30**	-.04	-.01	.00	.51**

N = 119 individuals.

Table 4. Mediating effects of shame and cross-level moderating effects of leader-member exchange

Predictor	Shame (Day t)	Emotional exhaustion (Day t)	In-role performance (Day t+1)	Extra-role performance (Day t+1)	Shame (Day t)
Control variables					
Morning negative affect (Day t)	.07(.07)	.06(.07)	.15**(.05)	.09*(.05)	.07(.07)
Morning positive affect (Day t)	.08(.07)	-.00(.06)	.03(.05)	-.11*(.05)	.02(.06)
In-role performance (Day t)			-.19**(.04)		
Extra-role performance (Day t)				-.12*(.06)	
Daily supervisor positive feedback (Day t)	-.05(.05)	-.02(.05)	-.05(.05)	.04(.05)	-.04(.05)
Age					-.02(.01)
Gender					.11(.11)
Dyad tenure					-.02(.02)
Independent variable					
Daily supervisor negative feedback (Day t)	.32**(.07)	.11*(.04)	.04(.05)	-.06(.05)	.32(.26)
Mediator					
Shame (Day t)		.14**(.03)	.06*(.03)	.10*(.03)	
Moderator					
LMX					-.01(.06)
Interaction					
LMX * Supervisor negative feedback					.24**(.06)

N = 530 observations. Values in brackets are standard error.

4.2 Testing mediation effects

The results from the multilevel modeling tests of Hypotheses 1-3 are shown in Table 4, with unstandardized coefficients and standard errors. After controlling for morning state affect and daily positive feedback, we found a positive relationship between daily negative feedback and shame ($b = .32$, $SE = .07$, $p < .01$), providing support for Hypothesis 1. The relationship between shame and emotional exhaustion was significant ($b = .14$, $SE = .03$, $p < .01$), thus supporting Hypothesis 2. The indirect effect of daily negative feedback on emotional exhaustion was significantly positive (indirect effect = .05, $SE = .02$, 95% CI = [.02, .08]). Thus, Hypothesis 4 was supported.

Further, the effects of shame on next-day in-role performance ($b = .06$, $SE = .03$, $p < .05$) and extra-role performance ($b = .10$, $SE = .03$, $p < .05$) were also significant, after controlling for previous-day performance. Thus, Hypotheses 3a and 3b were supported. Monte Carlo simulation indicates the indirect effects of daily negative feedback on in-role (indirect effect = .02, SE = .01, 95% CI = [.001, .04]) and extra-role performance (indirect effect = .03, SE = .01, 95% CI = [.002, .04]) were both significant, providing support for Hypotheses 5a and 5b.

4.3 Testing cross-level moderation effects

The last model in Table 4 presents the parameter estimates for the model that included LMX as a predictor of the within-person random slope between daily negative feedback and shame. After controlling for demographics, LMX was significantly and positively related to the daily negative feedback–shame random slope ($b = .24$, $SE = .06$, $p < .01$); the pattern is shown in Figure 2. A simple slope test revealed that when LMX was high (i.e., 1 SD above the mean), daily negative feedback's effect on shame was positive and significant (simple slope = .53, $SE = .26$, $p < .05$), whereas when LMX was low (i.e., 1 SD below the mean),

daily negative feedback's predictive effect was not significant (simple slope = .11, *SE* = .27, *n.s.*). Thus, Hypothesis 6 was supported.
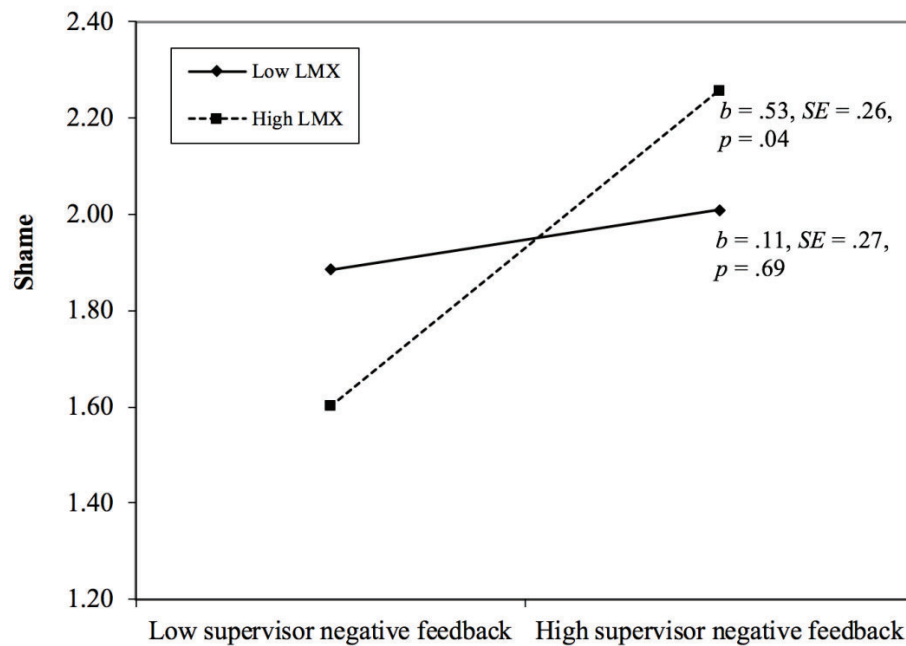
Figure 2. The moderating effect of LMX on the relationship between supervisor negative feedback and shame

4.4 Supplemental analysis

4.4.1 Moderated mediation effects

Although we did not hypothesize moderated mediation effects at the within-person level, we estimated the indirect effects of daily supervisor negative feedback at higher (+2 *SD*) and lower (-2 *SD*) values of LMX on emotional exhaustion and in-role and extra-role performance in post hoc analyses. The results shown in Table 5 suggest that indirect effects via shame were all significantly higher when LMX was high versus low.

Table 5. Supplemental analysis: Results of moderated mediation effects

Daily supervisor negative feedback → Shame → Outcomes	Moderator (LMX)	Indirect effect	*SE*	95% CI
Emotional exhaustion	High	.11	.05	[.03, .22]
	Low	-.02	.04	[-.09, .07]
In-role performance	High	.05	.03	[.002, .12]
	Low	-.01	.02	[-.06, .03]
Extra-role performance	High	.08	.03	[.02, .15]
	Low	-.01	.03	[-.08, .04]

4.4.2 Long-term effects of supervisor negative feedback and shame

We conducted analyses to explore the longer-term consequences of supervisor negative feedback and employee shame. Following the procedure of Qin et al. (2018), we averaged participants' supervisor negative feedback and shame from the first two days, and used these scores to predict well-being and performance on the fifth day while controlling for average supervisor positive feedback, LMX, employee age, gender, and dyad tenure. OLS regression results indicate that average supervisor negative feedback during the first two days had a positive impact on Day 5 emotional exhaustion ($b = .25$, $SE = .12$, $p < .05$), and a negative impact on Day 5 in-role performance ($b = -.22$, $SE = .07$, $p < .01$). The impact on extra-role performance was not significant ($b = .06$, $SE = .11$, ns). After including average shame as a predictor, shame had a positive impact on Day 5 emotional exhaustion ($b = .29$, $SE = .15$, $p < .01$), and a negative impact on Day 5 in-role performance ($b = -.17$, $SE = .09$, $p < .05$). As before, the impact on extra-role performance was not significant ($b = .21$, $SE = .13$, ns). We further retested the relationships using the average score from first three and four days, and the pattern of the results remained similar.

5. Discussion

Using a within-person design, the current study examined the impacts of supervisor negative feedback on employees' well-being and performance with shame as a mediator, and LMX quality as a moderator. Data collected from 119 employees over five workdays reveal that within individuals, daily supervisor negative feedback evokes shame in employees, which increases their emotional exhaustion at the end of the work day, while improving their next-day in-role and extra-role performance. Further, we found that for employees with high-quality LMX, supervisor negative feedback has a stronger effect on employees' shame at work.

5.1 Theoretical implications

There are a number of important findings from this study. To begin with, the study reveals the critical role of shame in explaining the influences of negative feedback on employee outcomes. The mediation effect provides support for affective events theory (AET, Weiss & Cropanzano, 1996) from an intra-individual perspective. Although the literature mostly adopts a between-subject design to investigate relations among stable properties, AET was originally intended to capture the short-term dynamics of experiences within individuals, given the highly variable nature of affective experience (Weiss & Beal, 2005; Tse et al., 2018). However, in feedback research, researchers generally focus on stable negative and positive affect, rather than momentary emotions. Although there is consistent evidence suggesting that negative feedback leads to employees having greater negative affect, which in turn leads to unfavorable outcomes (e.g., Belschak & Den Hartog, 2009; Ilies & Judge, 2005; Young et al., 2017), there has been no clarity about the specific utility of discrete emotions. Given that discrete emotions have a distinct motivational and behavioral profile that goes beyond simple positive and negative valence (Lazarus & Cohen-Charash, 2001), this constitutes an important gap in feedback literature. Now, however, there are increasing calls for more research into discrete emotions instead of general affect (e.g., Ashkanasy & Dorris, 2017; Gooty et al., 2009; Lindebaum & Jordan, 2012). Instead of using an aggregated affective dimension, in this research we offer a better understanding of the critical role shame plays in linking negative feedback and employee outcomes: daily negative feedback increases the experience of shame, which further impairs well-being but improves performance.

Moreover, the current findings also contribute to a deeper understanding of the effects of shame and disentangle the current limited and inconsistent literature to a certain extent. The prevalence of shame in organizations has led to increasing calls for more research on workplace shame (e.g., Daniels & Robinson, 2019; Murphy & Kiffin-Petersen, 2017).

Directly addressing these calls, we extend knowledge about the consequences of shame in two ways. First, our results provide further support for the burdening effects of shame on psychological well-being. Consistent with its effects on depressive symptoms (Kim et al., 2011), we found shame positively predicts individuals' emotional exhaustion, both in the short and the long term. Second, our study enriches the literature linking shame and performance by adopting a short-term perspective. Given conflicting findings about the effects of shame on behavioral outcomes, previous research has offered different ways to reconcile the results, including differentiating subtypes of shame (Allpress et al., 2014) and identifying contingencies such as the cultural context (Bagozzi, Verbeke, & Gavino Jr., 2003), and failure and social image repairability (Leach & Cidam, 2015). In this study, we found a short-lived beneficial effect of shame on next-day performance, but a negative impact on in-role performance over longer periods of time (i.e., two to four days). However, with only a limited time span for data collection, the findings here should encourage future research to replicate the long-term effect of shame on performance using a longer longitudinal design.

The within-person design of this study also advances empirical approaches toward the study of negative feedback. There has been a growing trend towards day-specific investigation in organizational behaviors (Beal, 2015; Gabriel et al., 2019; Ohly et al., 2010). Although the concept of daily, informal feedback has been appreciated in both academic and practical fields (e.g., Breevaart, Bakker, & Demerouti, 2014; Steelman et al., 2004; Pampino Jr. et al., 2004), investigations of this are still surprisingly underdeveloped in current research. In this study, we found that 42% of the variance in both positive feedback and negative feedback was within-person. Negative feedback researchers traditionally conduct cross-sectional surveys or experiments to test hypotheses. However, the between-person design of cross-sectional surveys is unable to investigate intra-individual theories (Gabriel et

al., 2019). Specifically, feedback theories are specified in terms of how feedback subsequently influences the status of states (e.g., emotions, work attitudes, performance) experienced by the same individual (Ilgen, Fisher, & Taylor, 1979; Kluger & DeNisi, 1996; Kluger, Lewinsohn, & Aiello, 1994). For another, although an experimental method allows for analytical precision, it may simultaneously yield results with low ecological validity (Reis, 2012). Feedback delivery and reception do not occur in a vacuum, but rather in contexts with a dynamic interaction between supervisors and employees. Experiments isolate research participants from their everyday activities, while daily diary studies take the natural work context into account. In summary, by acknowledging that negative feedback fluctuates within the individual, our study creates a new, short-term, day-to-day perspective on examining the effectiveness of negative feedback.

Another contribution to theory is that the current study highlights the importance of the relational context in which feedback is given and received in determining its effectiveness. The current literature recognizes that the source of the feedback (e.g., relations of power, Bear et al., 2017; empathy, Young et al., 2018) and the characteristics of the recipient (e.g., their work values, Merriman, 2017; feedback orientation, Chawla et al., 2019) affect feedback processes, but lacks research that directly addresses the relationship between the source and the recipient. This may be partly because prior research has primarily regarded the supervisor-employee relationship and feedback as sharing the same directionality: for example, assuming that a high-quality LMX would facilitate effective feedback or feedback-seeking behaviors (Bezuijen et al., 2010; Chen, Lam, & Zhong, 2007; Chun, Choi, & Moon, 2014), or that a favorable feedback environment would shape a friendly and supportive relationship between the provider and the recipient (Peng & Lin, 2016; Sparr & Sonnentag, 2008). However, there could also be unfavorable instances of feedback in a good relationship (Lonsdale, 2016), especially noticeable when taking a within-person perspective. Negative

feedback takes place in the workplace on a day-to-day basis, while LMX reflects the qualities of a relationship that is relatively stable over time (Dienesch & Liden, 1986; Liden, Wayne, & Stilwell, 1993). Our results suggest that the impact of negative feedback on employees' emotions is augmented by a good relationship with one's supervisor: compared with low-LMX employees, high-LMX employees are more likely to take negative feedback personally and experience more shame on that day. The synergistic effect between supervisor feedback and the relational context contributes to a more comprehensive understanding of the feedback process between supervisors and employees.

The findings also contribute to the LMX literature. The current research suggests that LMX primarily serves as a social resource which can mitigate the negative impacts of unfavorable leadership experiences (e.g., Harris, Harris, & Harvey, 2008; Pan & Lin, 2018). In contrast with these findings, our results indicate an exacerbating effect of LMX— individuals are *more* likely to feel negatively toward negative feedback from their supervisor. The supplementary moderated mediation tests suggest that these high-LMX employees are more likely to devote effort to improving their performance but that they simultaneously sacrifice their well-being. We infer that the detrimental effects may be partly due to the affective outcomes in these relationships. In spite of the advantages and benefits associated with high-quality LMX relationships, employees tend to experience more negative affects when receiving negative evaluations from one whom they respect and like. These results also echo prior findings that "in-group" employees are drained more quickly and are less satisfied when exposed to abusive supervision (Lian et al., 2012; Xu et al., 2015). Our study shows that LMX may not always be positive and adds evidence to the emerging literature on the dark side of LMX (Loi et al., 2011; Restubog et al., 2009).

5.2 Practical implications

The importance of continuous performance management on a daily basis has been increasingly emphasized in recent years, in both scholarly and popular literature (Adler et al., 2016; Buckingham & Goodall, 2015). Our results provide several implications on a practical level. First, given the differential impacts of negative feedback on employees' well-being and performance through shame, managers need to be more aware when delivering negative feedback. Although employees who feel shame tend to improve their performance in the short term, they simultaneously suffer from an impaired well-being. Therefore, it is questionable whether this level of performance is sustainable. As indicated by longitudinal studies of well-being and performance (e.g., Alessandri, Borgogni, & Latham, 2017; Bryson, Forth, & Stokes, 2017), satisfied employees demonstrate higher performance over time than unsatisfied employees. Indeed, our supplementary analysis also shows that these positive effects on performance turns out to be negative when viewed in a more long-term perspective. Therefore, supervisors need to take steps to lessen the shame that is elicited after negative feedback, in order to further weaken the negative influence of this on employee well-being and ultimately performance. Interventions such as, for example, displaying interactive empathy, using appreciative inquiries, and establishing learning goals can be used to facilitate positive emotions and increase the effectiveness of negative feedback (O'Malley & Gregory, 2011).

Additionally, the moderating effects of LMX suggest that managers need to realize that a good relationship with an employee cannot offset the adverse emotions elicited by negative feedback. Instead, supervisors need to pay more attention when delivering negative feedback to employees who have a good relationship with them. Those employees are likely to be more valuable and more sensitive to supervisors' evaluations, and thus more harmed by

negative feedback. In this situation, it is particularly necessary for managers to practice interventions of the type listed above.

5.3 Limitations and future research

This study has several limitations. First, all variables in this study were self-reported. Response bias, especially for in-role and extra-role performance, may be induced to some extent. Future research could use multi-source rating, such as collecting performance data from supervisors or colleagues to provide additional evidence for the relationships in the current study. Second, given that day-by-day negative feedback, daily levels of shame at work, and daily end-of-workday emotional exhaustion were measured simultaneously, causal inference among these variables cannot be made. Although we constrained the scale instructions by using different modifiers (e.g., "during today", "at this moment"), future research could separate measures by collecting them at different time points across the day to further investigate the flow of events. Third, this study was conducted using a sample of Chinese financial sector employees. Although the theoretical rationales underlying the study are not tied to the characteristics of a specific industry or aspects of a particular culture, future studies that constructively replicate our findings in other organizations, industries, or cultures could further strengthen our confidence regarding the generalizability of the results.

The research also highlights several avenues that warrant future inquiry. Although we found that supervisor negative feedback has positive indirect impacts on performance through shame, the main effect is nonsignificant ($b = .06$ for in-role performance and -.03 for extra-role performance). Results indicate there may be a complicated relationship between day-to-day supervisor negative feedback and employee performance. In this study, we only investigated an emotional mechanism, leaving other potential mechanisms unexplored. First, based on AET, future research could investigate how other emotional responses mediate the outcomes of day-to-day negative feedback. For example, criticism from supervisors may also

induce anger and fear, which may precipitate distinct responses among employees (Niemann et al., 2014; Peng et al., 2019). Second, as well as affective responses, employee's cognitive responses are another mechanism that should be investigated to explain the relationship between feedback and outcomes (Ilies et al., 2010; Mischel & Shoda, 1995). Future studies could explore the effects of employees' cognition to further enrich our understanding of the effectiveness of daily feedback. In addition, the findings of the present study reflect the within-person effects of supervisor negative feedback, but the results of supplementary analysis suggest that other consequences may merge in the long run. Thus longitudinal studies with multiple time points are needed to explore the sustained effects of negative feedback on a macro level.

6. Conclusion

This work extends prior findings regarding the impacts of negative feedback on employees by identifying the specific emotion of shame as the underlying mechanism that causes supervisor negative feedback to influences employee performance and well-being. Overall, the current study continues the emerging stream of research that examines the question of "When and how does negative feedback work in organizations?". Beyond simply answering the question of whether negative feedback is more effective or less effective, our findings illustrate that negative feedback can have differential impacts depending on the specific outcomes being examined (i.e., well-being or performance) or contextual factors (i.e., LMX). Our findings highlight the importance of further attention to this area of feedback research.

7. References

Adler, S., Campion, M., Colquitt, A., Grubb, A., Murphy, K., Ollander-Krane, R., & Pulakos, E. D. (2016). Getting rid of performance ratings: Genius or folly? A debate. *Industrial and Organizational Psychology: Perspectives on Science and Practice, 9*(2), 219–252.

Alessandri, G., Borgogni, L., & Latham, G. P. (2017). A dynamic model of the longitudinal relationship between job satisfaction and supervisor-rated job performance. *Applied Psychology*, *66*(2), 207–232.

Allpress, J. A., Brown, R., Giner-Sorolla, R., Deonna, J. A., & Teroni, F. (2014). Two faces of group-based shame: Moral shame and image shame differentially predict positive and negative orientations to ingroup wrongdoing. *Personality and Social Psychology Bulletin*, *40*(10), 1270–1284.

Ashforth, B.E., & Johnson, S. A. (2001). Which hat to wear? The relative salience of multiple identities in organizational contexts. In M. A. Hogg & D. J. Terry (Eds.), *Social identity processes in organizational contexts* (pp. 31–48). Philadelphia, PA: Psychology Press.

Ashkanasy, N. M., & Dorris, A. D. (2017). Emotions in the workplace. *Annual Review of Organizational Psychology and Organizational Behavior*, *4*, 67–90.

Ashkanasy, N. M., Zerbe, W. J., & Härtel, C. E. J. (2019). Introduction: Emotions in leadership. In N. M. Ashkanasy, W. J. Zerbe, & C. E. J. Härtel (Eds.), *Emotions and leadership* (pp. xix–xxv). Warrington, UK: Emerald Publishing.

Bagozzi, R. P., Verbeke, W., & Gavino, J. C., Jr. (2003). Culture moderates the self-regulation of shame and its effects on performance: The case of salespersons in the Netherlands and the Philippines. *Journal of Applied Psychology*, *88*(2), 219–233.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.

Beal, D. J. (2015). ESM 2.0: State of the art and future potential of experience sampling methods in organizational research. *Annual Review of Organizational Psychology and Organizational Behavior*, *2*, 383–407.

Bear, J. B., Cushenbery, L., London, M., & Sherman, G. D. (2017). Performance feedback, power retention, and the gender gap in leadership. *The Leadership Quarterly*, *28*(6), 721–740.

Belschak, F. D., & Den Hartog, D. N. (2009). Consequences of positive and negative feedback: The impact on emotions and extra-role behaviors. *Applied Psychology, 58*(2), 274–303.

Bezuijen, X. M., van Dam, K., van den Berg, P. T., & Thierry, H. (2010). How leaders stimulate employee learning: A leader-member exchange approach. *Journal of Occupational and Organizational Psychology*, *83*(3), 673–693.

Binnewies, C., Sonnentag, S., & Mojza, E. J. (2009). Daily performance at work: Feeling recovered in the morning as a predictor of day-level job performance. *Journal of Organizational Behavior*, *30*(1), 67–93.

Bohns, V. K., & Flynn, F. J. (2013). Guilt by design: Structuring organizations to elicit guilt as an affective reaction to failure. *Organization Science, 24*(4), 1157–1173.

Bolino, M. (1999). Citizenship and impression management: Good soldiers or good actors? *Academy of Management Review, 24*(1), 82–98.

Bolino, M., Long, D., & Turnley, W. (2016). Impression management in organizations: Critical questions, answers, and areas for future research. *Annual Review of Organizational Psychology and Organizational Behavior, 3*(1), 377–406.

Bonner, J. M., Greenbaum, R. L., & Quade, M. J. (2017). Employee unethical behavior to shame as an indicator of self-image threat and exemplification as a form of self-image

protection: The exacerbating role of supervisor bottom-line mentality. *Journal of Applied Psychology*, *102*(8), 1203–1221.

Breevaart, K., Bakker, A. B., & Demerouti, E. (2014). Daily self-management and employee work engagement. *Journal of Vocational Behavior*, *84*(1), 31–38.

Bryson, A., Forth, J., & Stokes, L. (2017). Does employees' subjective well-being affect workplace performance? *Human Relations*, *70*(8), 1017–1037.

Buckingham, M., & Goodall, A. (2015). Reinventing performance management. *Harvard Business Review*, *93*(4), 40–50.

Burmeister, A., Fasbender, U., & Gerpott, F. H. (2019). Consequences of knowledge hiding: The differential compensatory effects of guilt and shame. *Journal of Occupational and Organizational Psychology, 92*(2), 281–304.

Carver, C. S., & Scheier, M. F. (1998). *On the self-regulation of behavior*. New York: Cambridge University Press.

Chawla, N., Gabriel, A. S., da Motta Veiga, S. P., & Slaughter, J. E. (2019). Does feedback matter for job search self-regulation? It depends on feedback quality. *Personnel Psychology*. doi: 10.1111/peps.12320.

Chen, Z., Lam, W., & Zhong, J. A. (2007). Leader-member exchange and member performance: A new look at individual-level negative feedback-seeking behavior and team-level empowerment climate. *Journal of Applied Psychology*, *92*(1), 202–212.

Chun, J. U., Choi, B. K., & Moon, H. K. (2014). Subordinates' feedback-seeking behavior in supervisory relationships: A moderated mediation model of supervisor, subordinate, and dyadic characteristics. *Journal of Management & Organization*, *20*(4), 463–484.

Daniels, M. A., & Robinson, S. L. (2019). The shame of it all: A review of shame in organizational life. *Journal of Management*, *45*(6), 2448–2473.

De Hooge, I. E., Breugelmans, S. M., & Zeelenberg, M. (2008). Not so ugly after all: When shame acts as a commitment device. *Journal of Personality and Social Psychology, 95*(4), 933–943.

De Hooge, I. E., Zeelenberg, M., & Breugelmans, S. M. (2010). Restore and protect motivations following shame. *Cognition & Emotion, 24*(1), 111–127.

Deng, H., Coyle-Shapiro, J., & Yang, Q. (2018). Beyond reciprocity: A conservation of resources view on the effects of psychological contract violation on third parties. *Journal of Applied Psychology*, *103*(5), 561–577.

Dienesch, R. M., & Liden, R. C. (1986). Leader-member exchange model of leadership: A critique and further development. *Academy of Management Review*, *11*(3), 618–634.

Dimotakis, N., Mitchell, D., & Maurer, T. (2017). Positive and negative assessment center feedback in relation to development self-efficacy, feedback seeking, and promotion. *Journal of Applied Psychology, 102*(11), 1514–1527.

Dulebohn, J. H., Bommer, W. H., Liden, R. C., Brouer, R. L., & Ferris, G. R. (2012). A meta-analysis of antecedents and consequences of leader-member exchange: Integrating the past with an eye toward the future. *Journal of Management*, *38*(6), 1715–1759.

Elfenbein, H. (2007). Emotion in organizations: A review and theoretical integration. *The Academy of Management Annals*, *1*(1), 315–386.

Fritz, C., & Sonnentag, S. (2006). Recovery, well-being, and performance-related outcomes: The role of workload and vacation experiences. *Journal of Applied Psychology*, *91*(4), 936–945.

Furst, S. A., & Cable, D. M. (2008). Employee resistance to organizational change: Managerial influence tactics and leader-member exchange. *Journal of Applied Psychology*, *93*(2), 453–462.

Gabriel, A. S., Podsakoff, N. P., Beal, D. J., Scott, B. A., Sonnentag, S., Trougakos, J. P., & Butts, M. M. (2019). Experience sampling methods: A discussion of critical trends and considerations for scholarly advancement. *Organizational Research Methods*, *22*(4), 969–1006.

Gausel, N., & Leach, C. W. (2011). Concern for self-image and social image in the management of moral failure: Rethinking shame. *European Journal of Social Psychology, 41*(4), 468–478.

Gausel, N., Leach, C. W., Vignoles, V. L., & Brown, R. (2012). Defend or repair? Explaining responses to in-group moral failure by disentangling feelings of shame, rejection, and inferiority. *Journal of Personality and Social Psychology, 102*(5), 941–960.

George, J. M., & Zhou, J. (2001). When openness to experience and conscientiousness are related to creative behavior: An interactional approach. *Journal of Applied Psychology*, *86*(3), 513–524.

González-Gómez, H. V., & Richter, A. W. (2015). Turning shame into creativity: The importance of exposure to creative team environments. *Organizational Behavior and Human Decision Processes, 126*, 142–161.

Gooty, J., Gavin, M., & Ashkanasy, N. M. (2009). Emotions research in OB: The challenges that lie ahead. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, *30*(6), 833–838.

Graen, G. B., & Uhl-Bien, M. (1995). Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective. *The Leadership Quarterly*, *6*(2), 219–247.

Grant, A. M., & Sonnentag, S. (2010). Doing good buffers against feeling bad: Prosocial

impact compensates for negative task and self-evaluations. *Organizational Behavior and*

Human Decision Processes, *111*(1), 13–22.

Haidt, J. (2003). The moral emotions. In R. J. Davidson, K. R. Scherer, & H. H. Goldsmith

(Eds.), *Handbook of affective sciences* (pp. 852–870). Oxford, UK: Oxford University

Press.

Harris, R. B., Harris, K. J., & Harvey, P. (2008). An examination of the impact of supervisor

on the relationship between job strains and turnover intention for computer

workers. *Journal of Applied Social Psychology*, *38*(8), 2108–2131.

Hempel, P. S. (2008). Chinese reactions to performance feedback: Non-task attributions of

feedback intentions. *Asia Pacific Journal of Human Resources*, *46*(2), 196–219.

Hofmann, D. A., Griffin, M. A., & Gavin, M. B. (2000). The application of hierarchical

linear modeling to organizational research. In K. J. Klein & S. W. J. Kozlowski (Eds.),

Multilevel theory, research, and methods in organizations (pp. 467–511). San Francisco:

Jossey-Bass.

Hu, S., Hood, M., & Creed, P. A. (2018). Career goal importance as a moderator in the

relationship between career feedback and career-related stress. *Journal of Career*

Development, *45*(1), 3–18.

Humphrey, R. H., Burch, G. F., & Adams, L. L. (2016). The benefits of merging leadership

research and emotions research. *Frontiers in Psychology*, *7*, 1022.

Ilgen, D. R., Fisher, C. D., & Taylor, M. S. (1979). Consequences of individual feedback on

behavior in organizations. *Journal of Applied Psychology*, *64*(4), 349–371.

Ilies, R., & Judge, T. A. (2005). Goal regulation across time: The effects of feedback and

affect. *Journal of Applied Psychology*, *90*(3), 453–467.

Ilies, R., Judge, T. A., & Wagner, D. T. (2010). The influence of cognitive and affective

    reactions to feedback on subsequent goals. *European Psychologist*, *15*(2), 121–131.

Kabat-Farr, D., Cortina, L. M., & Marchiondo, L. A. (2018). The emotional aftermath of

    incivility: Anger, guilt, and the role of organizational commitment. *International*

    Journal of Stress Management, 25(2), 109–128.

Keltner, D. (1996). Evidence for the distinctness of embarrassment, shame, and guilt: A study

    of recalled antecedents and facial expressions of emotion. *Cognition & Emotion*, *10*(2),

    155–172.

Kernis, M. H., & Johnson, E. K. (1990). Current and typical self-appraisals: Differential

    responsiveness to evaluative feedback and implications for emotions. *Journal of*

    Research in Personality, *24*(2), 241–257.

Kim, S., Thibodeau, R., & Jorgensen, R. S. (2011). Shame, guilt, and depressive symptoms:

    A meta-analytic review. *Psychological Bulletin, 137*(1), 68–96.

Kim, Y. J., & Kim, J. (in press). Is negative feedback good or bad for creativity? The role of

    the direction of feedback flow. *Academy of Management Journal*.

Kluger, A. N., & DeNisi, A. (1996). The effects of feedback interventions on performance: A

    historical review, a meta-analysis, and a preliminary feedback intervention

    theory. *Psychological Bulletin*, *119*(2), 254–284.

Kluger, A. N., Lewinsohn, S., & Aiello, J. R. (1994). The influence of feedback on mood:

    Linear effects on pleasantness and curvilinear effects on arousal. *Organizational*

    Behavior and Human Decision Processes, *60*(2), 276–299.

Koopman, J., Lanaj, K., & Scott, B. A. (2016). Integrating the bright and dark sides of OCB:

    A daily investigation of the benefits and costs of helping others. *Academy of*

    Management Journal, *59*(2), 414–435.

Lam, L. W., Peng, K. Z., Wong, C. S., & Lau, D. C. (2017). Is more feedback seeking always

    better? Leader-member exchange moderates the relationship between feedback-seeking

    behavior and performance. *Journal of Management*, *43*(7), 2195–2217.

Lazarus, R. S., & Cohen-Charash, Y. (2001). Discrete emotions in organizational life. In R.

    Payne & C. L. Cooper (Eds.), *Emotions in organizations* (pp. 45–81). Chichester: Wiley.

Leach, C. W., & Cidam, A. (2015). When is shame linked to constructive approach

    orientation? A meta-analysis. *Journal of Personality and Social Psychology, 109*(6),

    983–1002.

Leung, K., Su, S., & Morris, M. W. (2001). When is criticism not constructive? The roles of

    fairness perceptions and dispositional attributions in employee acceptance of critical

    supervisory feedback. *Human Relations*, *54*(9), 1155–1187.

Lian, H., Ferris, D. L., & Brown, D. J. (2012). Does taking the good with the bad make things

    worse? How abusive supervision and leader-member exchange interact to impact need

    satisfaction and organizational deviance. *Organizational Behavior and Human Decision*

    Processes, 117(1), 41–52.

Lickel, B., Kushlev, K., Savalei, V., Matta, S., & Schmader, T. (2014). Shame and the

    motivation to change the self. *Emotion, 14*(6), 1049–1061.

Liden, R. C., Sparrowe, R. T., & Wayne, S. J. (1997). Leader-member exchange theory: The

    past and potential for the future. *Research in Personnel and Human Resources*

    Management, *15*, 47–120.

Liden, R. C., Wayne, S. J., & Stilwell, D. (1993). A longitudinal study on the early

    development of leader-member exchanges. *Journal of Applied Psychology*, *78*(4), 662–

    674.

Lindebaum, D., & Jordan, P. J. (2012). Positive emotions, negative emotions, or utility of

    discrete emotions? *Journal of Organizational Behavior*, *33*(7), 1027–1030.

Liu, Y., Wang, M., Chang, C. H., Shi, J., Zhou, L., & Shao, R. (2015). Work-family conflict, emotional exhaustion, and displaced aggression toward others: The moderating roles of workplace interpersonal conflict and perceived managerial family support. *Journal of Applied Psychology*, *100*(3), 793–808.

Loi, R., Ngo, H. Y., Zhang, L., & Lau, V. P. (2011). The interaction between leader-member exchange and perceived job security in predicting employee altruism and work performance. *Journal of Occupational and Organizational Psychology*, *84*(4), 669–685.

Lonsdale, D. J. (2016). The effects of leader-member exchange and the feedback environment on organizational citizenship and withdrawal. *The Psychologist-Manager Journal*, *19*(1), 41–59.

MacKenzie, S. B., Podsakoff, P. M., & Fetter, R. (1991). Organizational citizenship behavior and objective productivity as determinants of managerial evaluations of salespersons' performance. *Organizational Behavior and Human Decision Processes*, *50*(1), 123–150.

Merriman, K. K. (2017). Extrinsic work values and feedback: Contrary effects for performance and well-being. *Human Relations*, *70*(3), 339–361.

Mischel, W., & Shoda, Y. (1995). A cognitive-affective system theory of personality: Reconceptualizing situations, dispositions, dynamics, and invariance in personality structure. *Psychological Review*, *102*(2), 246–268.

Motowidlo, S. J., & Van Scotter, J. R. (1994). Evidence that task performance should be distinguished from contextual performance. *Journal of Applied Psychology*, *79*(4), 475–480.

Murphy, S. A., & Kiffin-Petersen, S. (2017). The exposed self: A multilevel model of shame and ethical behavior. *Journal of Business Ethics*, *141*(4), 657–675.

Niemann, J., Wisse, B., Rus, D., Van Yperen, N. W., & Sassenberg, K. (2014). Anger and attitudinal reactions to negative feedback: The effects of emotional instability and power. *Motivation and Emotion*, *38*, 687–699.

O'Malley, A. L., & Gregory, J. B. (2011). Don't be such a downer: Using positive psychology to enhance the value of negative feedback. *The Psychologist-Manager Journal*, *14*(4), 247–264.

Ohly, S., Sonnentag, S., Niessen, C., & Zapf, D. (2010). Diary studies in organizational research. *Journal of Personnel Psychology*, *9*(2), 79–93.

Paauwe, J. (2009). HRM and performance: Achievements, methodological issues and prospects. *Journal of Management Studies*, *46*(1), 129–142.

Pampino, R. N., Jr., MacDonald, J. E., Mullin, J. E., & Wilder, D. A. (2004). Weekly feedback vs. daily feedback: An application in retail. *Journal of Organizational Behavior Management*, *23*(2–3), 21–43.

Pan, S. Y., & Lin, K. J. (2018). Who suffers when supervisors are unhappy? The roles of leader–member exchange and abusive supervision. *Journal of Business Ethics*, *151*(3), 799–811.

Peng, A., Schaubroeck, J., Chong, S., & Li, Y. (2019). Discrete emotions linking abusive supervision to employee intention and behavior. *Personnel Psychology*. doi: 10.1111/peps.12310.

Peng, J. C., & Lin, J. (2016). Linking supervisor feedback environment to contextual performances: The mediating effect of leader-member exchange. *Leadership & Organization Development Journal*, *37*(6), 802–820.

Poulson, C. F. (2000). Shame and work. In N. M. Ashkanasy, W. Zerbe & C. E. J. Härtel (Eds.), *Emotions in the workplace: Research, theory, and practice* (pp. 490–541). Westport, CT: Quorum Books.

Preacher, K. J., Curran, P. J., & Bauer, D. J. (2006). Computational tools for probing interactions in multiple linear regression, multilevel modeling, and latent curve analysis. *Journal of Educational and Behavioral Statistics*, *31*(4), 437–448.

Prem, R., Kubicek, B., Diestel, S., & Korunka, C. (2016). Regulatory job stressors and their within-person relationships with ego depletion: The roles of state anxiety, self-control effort, and job autonomy. *Journal of Vocational Behavior, 92*, 22–32.

Qin, X., Huang, M., Johnson, R. E., Hu, Q., & Ju, D. (2018). The short-lived benefits of abusive supervisory behavior for actors: An investigation of recovery and work engagement. *Academy of Management Journal*, *61*(5), 1951–1975.

Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical linear models* (2nd ed.). Thousand Oaks, CA: Sage.

Reis, H. T. (2012). Why researchers should think "real-world": A conceptual rationale. In M. R. Mehl & T. S. Conner (Eds.), *Handbook of research methods for studying daily life* (pp. 3–21). New York: Guilford Press.

Restubog, S. L. D., Bordia, P., Tang, R. L., & Krebs, S. A. (2010). Investigating the moderating effects of leader-member exchange in the psychological contract breach–employee performance relationship: A test of two competing perspectives. *British Journal of Management*, *21*(2), 422–437.

Schmitt, A., Den Hartog, D. N., & Belschak, F. D. (2015). Is outcome responsibility at work emotionally exhausting? Investigating employee proactivity as a moderator. *Journal of Occupational Health Psychology*, *20*(4), 491–500.

Schreurs, B. H., van Emmerik, IJ. H., Günter, H., & Germeys, F. (2012). A weekly diary study on the buffering role of social support in the relationship between job insecurity and employee performance. *Human Resource Management*, *51*(2), 259–279.

Shantz, A., Arevshatian, L., Alfes, K., & Bailey, C. (2016). The effect of HRM attributions on emotional exhaustion and the mediating roles of job involvement and work overload. *Human Resource Management Journal*, *26*(2), 172–191.

Shockley, K. M., Ispas, D., Rossi, M. E., & Levine, E. L. (2012). A meta-analytic investigation of the relationship between state affect, discrete emotions, and job performance. *Human Performance*, *25*(5), 377–411.

Sparr, J. L., & Sonnentag, S. (2008). Fairness perceptions of supervisor feedback, LMX, and employee well-being at work. *European Journal of Work and Organizational Psychology*, *17*(2), 198–225.

Sparrowe, R. T., Soetjipto, B. W., & Kraimer, M. L. (2006). Do leaders' influence tactics relate to members' helping behavior? It depends on the quality of the relationship. *Academy of Management Journal*, *49*(6), 1194–1208.

Steelman, L. A., & Rutkowski, K. A. (2004). Moderators of employee reactions to negative feedback. *Journal of Managerial Psychology*, *19*(1), 6–18.

Steelman, L. A., Levy, P. E., & Snell, A. F. (2004). The Feedback Environment Scale: Construct definition, measurement, and validation. *Educational and Psychological Measurement*, *64*(1), 165–184.

Sue-Chan, C., Chen, Z., & Lam, W. (2011). LMX, coaching attributions, and employee performance. *Group & Organization Management*, *36*(4), 466–498.

Tangney, J. P. (1995). Shame and guilt in interpersonal relationships. In J. P. Tangney & K. W. Fischer (Eds.), *Self-conscious emotions: The psychology of shame, guilt, embarrassment and pride* (pp. 114–142). New York: Guilford Press.

Tangney, J. P., Miller, R. S., Flicker, L., & Barlow, D. H. (1996). Are shame, guilt, and embarrassment distinct emotions? *Journal of Personality and Social Psychology, 70*(6), 1256–1269.

Thompson, E. R. (2007). Development and validation of an internationally reliable short-form of the Positive and Negative Affect Schedule (PANAS). *Journal of Cross-cultural Psychology*, *38*(2), 227–242.

Tracy, J. L., Robins, R. W., & Tangney, J. P. (2007). The self-conscious emotions: Theory and research. New York: Guilford Press.

Tse, H. M., Troth, A. C., Ashkanasy, N. M., & Collins, A. L. (2018). Affect and leader-member exchange in the new millennium: A state-of-art review and guiding framework. *The Leadership Quarterly*, *29*(1), 135–149.

Weiss, H. M., & Beal, D. J. (2005). Reflections on affective events theory. In N. M. Ashkanasy, W. J. Zerbe & C. E. J. Härtel (Eds.), *Research on emotion in organizations* (Vol. 1, pp. 1–22). San Diego, CA: Elsevier.

Weiss, H. M., & Cropanzano, R. (1996). Affective events theory: A theoretical discussion of the structure, causes, and consequences of affective experiences at work. In B. M. Staw & L. L. Cummings (Eds.), *Research in organizational behavior* (Vol. 18, pp. 1–74). Greenwich, CT: JAI Press.

White, B. A., & Turner, K. A. (2014). Anger rumination and effortful control: Mediation effects on reactive but not proactive aggression. *Personality and Individual Differences*, *56*, 186–189.

Wright, T. A., & Cropanzano, R. (1998). Emotional exhaustion as a predictor of job performance and voluntary turnover. *Journal of Applied Psychology*, *83*(3), 486–493.

Xu, A. J., Loi, R., & Lam, L. W. (2015). The bad boss takes it all: How abusive supervision and leader–member exchange interact to influence employee silence. *The Leadership Quarterly, 26*(5), 763–774.

Young, S. F., Richard, E. M., Moukarzel, R. G., Steelman, L. A., & Gentry, W. A. (2017).

    How empathic concern helps leaders in providing negative feedback: A two-study

    examination. *Journal of Occupational and Organizational Psychology*, *90*(4), 535–558.

Conclusion to Study Two

Study 2 expanded the findings of Study 1 by highlighting the emotion of shame as an underlying mechanism between supervisor negative feedback and employee outcomes. At the within-person individual level, supervisor negative feedback is associated with employees' feelings of shame, which increased their end-of-workday emotional exhaustion while improving their next-day in-role and extra-role performance. Further, individual-level leader-member exchange moderates the relationship between negative feedback and shame, with the relationship being stronger under high-LMX.

Taking this study together with Study 1, we can conclude that both cognitive and affective processes matter in illuminating the variability in the effectiveness of negative feedback. However, to date, little is known about the joint effects of simultaneous cognitive and affective states on employees' feedback responses. This is a significant oversight, since cognition and affect can play different roles in shaping feedback outcomes. Therefore, we conducted Study 3 to further understand how these two states contribute to different responses after negative feedback.

Chapter 4

"How I Think" versus "How I Feel": The Effects of Supervisor Negative Feedback on Employees' Feedback-Seeking and Feedback-Avoiding Behaviors

Introduction to Study Three

The findings of Studies 1 and 2 confirm that supervisor negative feedback influences employees' motivation to learn, job performance, and well-being through a cognitive or an affective process. Using the theoretical lens of cognitive and affective processing theory, we now seek to understand how both perspectives can be simultaneously incorporated into an understanding of the effectiveness of negative feedback. In addition, we extend the analysis from looking at employees' abilities to cope with current feedback to an examination of the way they act to manage future feedback, including their feedback-seeking and feedback-avoiding behaviors. We propose that there are different contributions of cognitive and affective states in predicting these two behaviors. Further, we investigate leader-member exchange as a boundary condition in these two mechanisms. Data were collected at two points in time from 220 employees of a manufacturing enterprise in China. In this study, we aim to integrate cognitive and affective perspectives, as well as the feedback management literature, to reveal the effectiveness of negative feedback in a more nuanced framework.

This paper has been prepared according to the publication guidelines for the journal *Human Resource Management*.

'How I Think' versus 'How I Feel': The Effects of Supervisor Negative Feedback on Employees' Feedback-Seeking and Feedback-Avoiding Behaviors

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Abstract

Studies on feedback management behaviors such as feedback-seeking behavior (FSB) and feedback-avoiding behavior (FAB) have developed relatively independently from the broader feedback literature. Little is known about how the feedback that individuals receive affects their subsequent feedback management behaviors. We propose an overarching framework that integrates conservation of resources theory with the cognitive-affective processing system framework to determine why and when supervisor negative feedback affects employees' FSB and FAB. Data were collected at two points in time from 220 employees of a manufacturing enterprise in China. As anticipated, employees' organization-based self-esteem mediated the negative effects of supervisor negative feedback on their FSB, while frustration mediated its positive effect on FAB. Leader-member exchange serves as a double-edged sword for employees, as it weakens the negative effects of supervisor negative feedback on employees' organization-based self-esteem, while strengthening the positive relationship between supervisor negative feedback and frustration. Theoretical and practical implications of the findings are discussed.

Keywords: Feedback-seeking behavior; feedback-avoiding behavior; frustration; leader-member exchange; organization-based self-esteem; supervisor negative feedback.

1. Introduction

Considerable research has been conducted on feedback-seeking behavior (FSB) since the concept was introduced (Ashford & Cummings, 1983). FSB refers to the tactics that employees use to seek job-related feedback from important individuals at work. FSB allows employees to adjust to new jobs and settings, signal their motivation to improve their performance and acquire information to enhance their future effectiveness (Ashford, De Stobbeleir, & Nujella, 2016). More recently, recognition of the prevalence and importance of another type of behavior, feedback-avoiding behavior (FAB), has increased research interest in this area. FAB occurs when employees 'use strategies that are designed to either totally avoid their leaders or divert their leader's attention so that their poor performance is not acknowledged, and they do not receive negative verbal feedback' (Moss, Valenzi, & Taggart, 2003, p. 493). Both FSB and FAB are feedback management behaviors and have important implications for individual and organizational effectiveness (Anseel, Beatty, Shen, Lievens, & Sackett, 2015; Song, Moss, & Gok, 2013).

One potentially important determinant of feedback management behaviors is the feedback that employees have received in the past (Whitaker, Dahling, & Levy, 2007; Young & Steelman, 2014). As feedback is provided on an ongoing basis, specific features of previous feedback can affect individuals' desire to seek or avoid additional feedback (Anseel et al., 2015; Dimotakis, Mitchell, & Maurer, 2017; Whitaker & Levy, 2012). Unlike positive feedback, negative feedback is primarily used in organizations to shape employees' behaviors (Kim & Kim, in press). Negative feedback indicates that an individual's performance has fallen below specified standards. Such feedback may affect employees' evaluations of their current performance status and cause them to adjust their future behaviors (Anseel et al., 2015). Negative feedback often elicits both cognitive and affective reactions and these may have an integrated effect on employees' behaviors (e.g., Ilies, Judge & Wagner, 2010;

Johnson & Connelly, 2014; Zingoni & Byron, 2017). To date, little is known about the potential cognitive and affective mechanisms that affect feedback management behaviors after an employee has received negative feedback. Thus, the relationships between negative feedback and FSB and FAB remain largely unexplained.

Further complicating these relationships, FSB and FAB may be affected by different mechanisms. FSB and FAB refer to two distinct types of behavior and do not represent opposite sides of the same continuum (Moss, Sanchez, Brumbaugh, & Borkowski, 2009). Individuals undertake a conscious assessment of values and costs before they decide whether or not to engage in FSB (Anseel et al., 2015; Ashford & Cummings, 1983; Choi, Moon, & Nae, 2014; VandeWalle, 2003). Conversely, FAB is largely driven by a natural urge to maintain a good impression and preserve ego (Moss et al., 2003; Moss & Sanchez, 2004). FAB goes beyond merely refraining from engaging in FSB, as poor performers not only passively distance themselves from seeking feedback, but also proactively avoid receiving feedback (Moss et al., 2009). FSB and FAB have largely been investigated in isolation (for exceptions, see Moss et al., 2003; Moss, Song, Hannah, Wang, & Sumanth, 2019). Consequently, the different mechanisms of these two behaviors have largely been ignored in the literature. An integrated investigation will not only provide a comprehensive theoretical understanding of the nature of these constructs but will also have practical implications as to how effective feedback behaviors could be successfully promoted within organizations.

In this study, we integrate conservation of resources theory (COR; Hobfoll, 1989) with the cognitive-affective processing system (CAPS) framework (Mischel & Shoda, 1995) to explore the effects of negative feedback on employees' FSB and FAB. Supervisor feedback is focused upon, as it represents the most common form of feedback (Leung, Su, & Morris, 2001) and supervisors are the organizational agents who implement performance management in practice (Kuvaas, Buch, & Dysvik, 2017). The model identifies the two

mediators of organization-based self-esteem (OBSE) and frustration as manifestations of cognitive and affective resource fluctuation respectively. The cognitive resource pathway accounts for the effects of supervisor negative feedback on FSB, while the affective resource pathway accounts for its effects on FAB. We further extend theory by identifying leader-member exchange (LMX) as the boundary condition, as it was theorized that employees' relationships with their supervisors shape the way that employees appraise work events and also affect the resource dynamics that arise from work events (Koopmann, Lanaj, Bono, & Campana, 2016). Given differences in the types of resources that employees deplete, we argue that LMX plays different moderating roles in these two distinct psychological processes.

We also seek to ascertain *why* and *when* supervisor negative feedback affects employees' feedback management behaviors. By doing so, we aim to make three major contributions to the literature on feedback. First, we have responded to a call to integrate the literature on feedback and feedback management (DeNisi & Sockbeson, 2017). By delineating the process that occurs between receiving feedback and subsequent feedback management behaviors, we aim to explain the ongoing feedback process. Second, this study seeks to advance understandings of negative feedback, FSB and FAB. By revealing the different resource-depleting effects of supervisor negative feedback, this study provides a more comprehensive understanding of such feedback; and by addressing the relative contribution of cognition and affect in FSB and FAB, we extend the understanding of these two behaviors. Third, this study aims to examine the critical role of LMX in moderating the effects of supervisor negative feedback. In doing this, we shed light on how LMX can both buffer and intensify negative effects, and this further contributes to a comprehensive understanding of the feedback process between supervisors and employees. Figure 1 depicts our theoretical model.
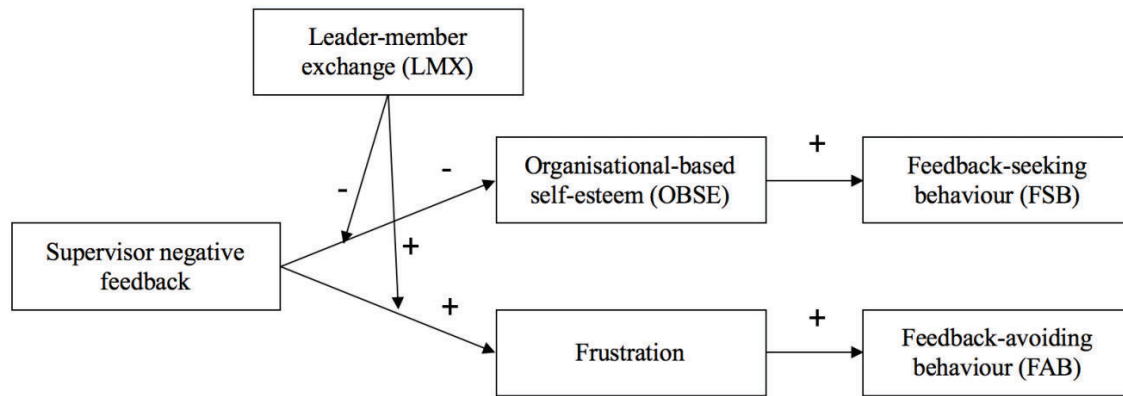
Figure 1. The research model

2. Theoretical framework and hypotheses

The cognitive-affective processing system (CAPS) is a broad theoretical model concerned with individual behavioral choices in response to events in the workplace (Mischel & Shoda, 1995). The central tenet of this framework is that after encountering a specific event such as supervisor negative feedback, employees appraise their levels of personal resources. In their appraisals, employees access 'cognitive-affective units' or mental representations to help them respond to events (Koopman, Lanaj, & Scott, 2016; Mischel & Shoda, 1995). The CAPS framework recognizes the roles of cognition and affect in understanding individuals' responses to feedback (Ilies, Judge, & Wagner, 2010). However, the CAPS framework is silent about how the effects occur and fails to identify the specific mechanisms that link feedback to employee behaviors.

To further elucidate the processes, this study integrates conservation of resources theory (COR) with the CAPS framework. According to COR, individuals 'strive to retain, protect, and build' valuable resources (Hobfoll, 1989, p. 516). When confronted by resource-consuming events at work, employees adopt a defensive position to conserve their remaining resources and protect themselves from losing resources (Halbesleben, Neveu, Paustian-Underdahl, & Westman, 2014). As discussed below, the resource appraisal process that follows supervisor negative feedback emphasizes both cognitive and affective resource-

consuming considerations which manifest as OBSE and frustration. These considerations also affect employees' decisions about whether to engage in FSB or FAB.

2.1 A cognitive mechanism links supervisor negative feedback to employee FSB

We first propose that negative feedback results in a cognitive manifestation of resource drain, which shapes individuals' self-concepts (Xanthopoulou, Heuven, Demerouti, Baker, & Schaufeli, 2008). Negative feedback has been shown to diminish self-esteem (Crocker, Karpinski, Quinn, & Chase, 2003). Previous research referred to global self-esteem; however, a more relevant construct is organization-based self-esteem (OBSE), which refers to a cognitive appraisal that reflects 'the self-perceived value that individuals have of themselves as organization members acting within an organizational context' (Pierce, Gardner, Cummings, & Dunham, 1989, p. 625). According to Pierce et al. (1989), OBSE is affected by supervisors' behaviors towards employees, which in turn affects employees' work-related behaviors. Consequently, it was anticipated that supervisor negative feedback would decrease employees' OBSE, which in turn would inhibit their FSB.

As a workplace stressor, supervisor negative feedback may deplete employees' cognitive resources and further decrease their OBSE. First, negative feedback informs employees of their failure to achieve task goals (Demotakis et al., 2017). When facing such a failure, employees are likely to ruminate on the negative feedback and the mistakes they have made (Baranik, Wang, Gong, & Shi, 2017; Martin & Tesser, 2006). This process taxes employees' cognitive resources and casts a negative bias on their thinking, which makes it easier to access negative thoughts in their self-evaluation (Lyubomirsky & Nolen-Hoeksema, 1995), especially their self-evaluation in the work context. Second, unlike positive feedback, which indicates that employees have mastered their job, negative feedback is often accompanied by greater ambiguity and complicates employees' cognitive processes (Audia & Locke, 2003; O'Malley & Gregory, 2011). Employees need to identify the how, what and

why of their supervisors' work expectations, which increases employees' information-processing requirements. For example, employees tend to devote extra effort to interpreting and seeking explanations for negative feedback (e.g., Hempel, 2008; Tolli & Schmidt, 2008). Uncertainties may also deplete employees' cognitive resources (De Jonge & Dormann, 2006), causing them to question their competence to complete a task and lowering their belief that they are qualified members within the organization, which in turn results in decreased OBSE.

Employees with decreased OBSE are less likely to seek feedback from others. COR states that losing resources will motivate individuals to protect themselves to ensure they do not lose further resources (Halbesleben et al., 2014). Employees experiencing cognitive resource drain will passively avoid or delay taking necessary actions (Dionisi & Barling, 2019). FSB can lead to high loss of face and carry high ego costs for employees with low OBSE. Such employees have low expectations of their own performance, and seeking potential negative feedback could thus further decrease their self-worth (Anseel et al., 2015). In such circumstances, their cognitive resources would be further depleted. FSB may also add little value to the remaining resources of employees with low OBSE. Such employees tend to have unfavorable attitudes such as dissatisfaction, little job involvement and low affective commitment (Bowling, Eschleman, Wang, Kirkendall, & Alarcon, 2010; Lee & Peccei, 2007). Such negative views towards their job and organization are likely to reduce the value of feedback. Given the mostly high costs and low value associated with FSB, employees with low OBSE tend not to seek any further feedback and wish to allow their current work status to continue without any interference. Thus, it was hypothesized that:

Hypothesis 1: Supervisor negative feedback has a negative indirect relationship with FSB via OBSE.

2.2 An affective mechanism links supervisor negative feedback to employee FAB

By combining the CAPS framework with COR, we argue that another process, the depletion of affective resources (Dionisi & Barling, 2019), likely provides unique variance in predicting feedback management behavior. Indeed, emotions and affect are strong driving forces beyond cognition that motivate specific behavioral reactions (Barclay & Kiefer, 2014). Negative feedback represents a key affective event that elicits a negative affective reaction (e.g., Belschak & Hartog, 2009; Young, Richard, Moukarzel, Steelman, & Gentry, 2017). In the current study, we investigate the more specific emotional response of frustration as a manifestation of affective resources depletion (Eissa & Lester, 2017). We anticipate supervisor negative feedback will increase employees' frustration, which in turn will enhance their FAB.

Negative feedback from supervisors indicates a failure to meet work expectations and impedes work progress, causing employees to experience frustration. Employees are expected to demonstrate appropriate abilities and skills and perform their jobs adequately. Negative feedback from supervisors indicates a failure to meet such expectations, reveals employees' weaknesses and poses a threat to their work progress and goal achievement. Thus, supervisor negative feedback constitutes a psychologically upsetting event (Ilies & Judge, 2005), which leads to the depletion of emotional resources. Frequent negative feedback often indicates that an employee has fallen short of their work goals, which could interfere with or even block the employee from achieving their goals at work. If goal attainment is threatened, employees may consequently experience feelings of frustration (Anderson & Bushman, 2002; Spector, 1997).

Frustrated employees may engage in FAB to protect their remaining resources from further depletion. A drain on affective resources tends to narrow an individual's focus and cause them to behave in a particular manner to ensure resource conservation (Fredrickson,

1998, 2001). Instead of remaining engaged with their environment, individuals in such

circumstances are motivated to respond quickly to conserve resources and manage their

environment (Barclay & Kiefer, 2014; Lazarus, 1991). It has also been argued that frustration

is associated with aggressive behaviors (e.g., Fox, Spector, & Miles, 2001; Harvey & Harris,

2010); however, we argue that due to their dependency on their supervisors, frustrated

subordinates are more likely to adopt avoidant coping strategies rather than retaliate against

their supervisors (Tepper, Moss, Lockhart, & Carr, 2007). By avoiding feedback, frustrated

employees temporarily terminate interactions with the source of their stress (i.e., their

supervisors) to alleviate their psychological discomfort and preserve their limited resources.

Findings that negative emotions lead to avoidant behaviors also strengthen the suggestion

that feelings of frustration may elicit FAB. For example, negative emotions are said to have a

strong role in predicting psychological withdrawal in the workplace (Barclay & Kiefer,

2014). Frederikson and Dewe (1996) found that stressful situations increase feelings of

frustration, which leads to a greater use of avoidance coping responses than approach coping

responses. Thus, we predict that there will be an affective mechanism between supervisor

negative feedback and FAB. Specifically, we hypothesize that:

Hypothesis 2: Supervisor negative feedback has a positive indirect relationship with

FAB via frustration.

2.3 The 'double-edged' moderating role of LMX

LMX refers to the overall quality of the relationship between a supervisor and an

employee (Graen & Uhl-Bien, 1995). Supervisor negative feedback represents a specific

work event that can occur at any time during an interaction between a supervisor and an

employee. Conversely, LMX sets the overall tone for the supervisor-employee relationship

that develops over time (Xu, Loi, & Lam, 2015). Employees interpret supervisor negative

feedback based on the quality of their relationship with their supervisors. Thus, LMX could shape employees' cognitive and affective responses to negative feedback.

We argue that high-quality LMX relationships serve as a form of social support that has informative value and can mitigate the cognitive burden elicited by negative feedback. First, employees with higher-quality LMX relationships are likely to receive more support from their supervisors in completing their tasks than those with lower-quality LMX relationships. Employees with high-quality LMX relationships may also believe that they can succeed because they have the support of their supervisors (Dimotakis et al., 2017). This belief protects their perceptions of self-value from the effects of cognitive resource depletion. Conversely, employees with low-quality LMX relationships may interpret negative feedback in unfavorable ways; for example, such employees may interpret negative feedback as a form of unjust interpersonal treatment or an attempt to undermine them personally (Leung et al., 2001). Such interpretations are more likely to impair their OBSE. Second, employees who have high-quality LMX relationships with their supervisors tend to receive continuous guidance from their supervisors, which can help them to cope better with negative feedback (Chen, Lam & Zhong, 2007). In a high-LMX dyad, supervisors are viewed as trustworthy and approachable; thus, employees can easily understand the reasons they received negative feedback and are aware of what they need to do to improve. In this situation, LMX frees the cognitive resources required to cope with uncertainty. Employees are able to maintain their OBSE after receiving negative feedback because they have sufficient cognitive resources to evaluate themselves. Conversely, employees in a low-LMX dyad may need to devote more cognitive resources to processing negative feedback because they are unwilling to approach their supervisors to discuss the problem. Consequently, their OBSE is likely to be decreased. We contend that LMX will have a buffering effect on employees' cognitive process and hypothesize that:

Hypothesis 3: LMX moderates the negative relationship between supervisor negative feedback and OBSE, such that the relationship is weaker when the quality of the LMX relationship is high than when it is low.

While there is a buffering role of LMX in the cognitive resource depletion process, employees with a strong relationship with their supervisor may in contrast perceive negative feedback as being more threatening to their goal attainment and work progress. Employees with high-quality LMX relationships generally believe their supervisors will provide them with adequate support (Xu et al., 2015) and are likely have a higher expectation of success in completing tasks. Under this condition, negative information has a stronger effect because it is usually unexpected and surprising (Lian, Ferris, & Brown, 2012). Frequent negative feedback from supervisors may be considered a violation of the employees' expectations and thus be more psychologically upsetting, which will deplete more affective resources. Employees with high-quality LMX relationships are more likely to perceive that their progress at work is being blocked beyond normal expectations and so experience strong feelings of frustration. Conversely, in the context of an unsupported relationship (i.e., a low-quality LMX relationship), employees are treated as 'out-group' members and do not expect smooth progress (Xu et al., 2015). Supervisor negative feedback in this situation is perceived as reasonable and thus less threatening to employees' original work plan. Based on these arguments, we propose that LMX amplifies frustration in the affective process. Specifically, we hypothesized that:

Hypothesis 4: LMX moderates the positive relationship between supervisor negative feedback and frustration, such that relationship is stronger when the quality of the LMX relationship is high than when it is low.

Based on the mediating and moderating hypotheses, we also hypothesize that there are two moderated mediation effects:

Hypothesis 5: LMX moderates the indirect relationship between LMX and FSB via OBSE, such that the indirect relationship is weaker when the quality of the LMX relationship is high than when it is low.

Hypothesis 6: LMX moderates the indirect relationship between LMX and FAB via frustration, such that the indirect relationship is stronger when the quality of the LMX relationship is high than when it is low.

3. Method

3.1 Participants and procedure

Data were collected from a limited corporation restructured from a state-owned enterprise (SOE) in the manufacturing industry in China. This type of organization was selected for two reasons. First, employees of SOEs tend to respect hierarchy and authority, which makes their supervisors' evaluations important determinants of their behaviors (Chen, 2002). Second, only a limited number of corporations that have been transformed from SOEs have gained autonomy from government control and discretion in their management, but in these organizations employees are encouraged to take the initiative to improve their performance (Chen, Lam, & Zhong, 2007). Thus, this type of organization provides a relevant setting to examine the research questions.

With the assistance of a human resource manager, two research assistants distributed questionnaires to members of each department in the organization. Only employees who had frequent contact with their supervisors were included as participants. Before completing the questionnaire, participants were informed about the purpose of the study, assured that the data would remain confidential and reminded that their participation in the study was voluntary. To avoid common method bias and identify causality, data were collected at two separate time points. In the first wave (T1), participants were invited to indicate supervisor

feedback, OBSE, frustration, and LMX. Two months later (T2), participants were asked to indicate FSB and FAB and provide their demographic information.

We obtained a valid sample of 220 participants from matching responses in the T2 survey with those at T1. An attrition analysis was conducted to examine whether there were any systematic differences between the attrition sample and the retention sample (Goodman & Blum, 1996). The means of the T1 variables were compared across the two samples and no significant differences were found, other than that the education level in the attrition group was slightly higher ($M = 2.43$) than that of the retention group ($M = 2.06$; $t = 4.14$, $p < .01$), indicating that participant attrition was not a major issue. Of the final sample, 67.7% were male and 51.4% held at least one college degree. On average, participants were aged 33.3 years, had an organizational tenure of 7.6 years and a dyadic tenure (i.e., the period for which an employee had been working with his/her current supervisor) of 3.8 years.

3.2 Measures

A six-point Likert scale from 1 (*strongly disagree*) to 6 (*strongly agree*) was used for all measures except for the supervisor negative feedback, LMX, FSB and FAB scales.

3.2.1 Supervisor negative feedback

To assess the amount of negative feedback each participant received from their supervisor, a four-item supervisor negative feedback scale based on the scale of Steelman, Levy, and Snell (2004) was used. The original scale reflects the perceived frequency of supervisor negative feedback, which is believed to accurately reflect performance. However, employees often have no, little or inconsistent information about how well they are performing (Ashford, 1986). In keeping with our conceptualization of supervisor negative feedback, we revised the wording of the items on Steelman et al.'s scale to focus on negative feedback from supervisors and de-emphasized the connotation that performance warrants such feedback. The four revised sample items are 'My supervisor lets me know that I don't

meet some deadlines', 'My supervisor lets me know that my job performance falls below what is expected', 'My supervisor tells me that I made a mistake at work' and 'My supervisor tells me that my work performance does not meet organizational standards'. Participants responded to these items using a six-point Likert scale (where 1 = *never* and 6 = *always*).

3.2.2 LMX

Graen and Uhl-Bien's (1995) seven-item LMX scale was used to assess the quality of LMX relationships. Sample items include 'I have enough confidence in my leader that I would defend and justify his/her decision if he/she were not present to do so' (1 = *strongly disagree* and 6 = *strongly agree*) and 'How would you characterize your working relationship with your supervisor?' (1 = *extremely ineffective* and 6 = *extremely effective*).

3.2.3 OBSE

OBSE was measured using eight items from the scale of Pierce et al. (1989). Shu and Liang (2015) validated Pierce et al.'s (1989) original 10-item scale in the Chinese context and deleted two items ('There is faith in me' and 'I can make a difference') due to cross-loading; we have followed their lead. A sample item from the scale in the present study is 'I count around here'.

3.2.4 Frustration

Frustration was assessed using a three-item scale from Peters, O'Connor and Rudolf's (1980) work frustration scale. One sample item from the scale is 'Trying to get this job done was a very frustrating experience'.

3.2.5 FSB

Ashford's (1986) seven-item scale was used to measure FSB. Employees were asked how often they engaged in various behaviors. For example, employees were asked to 'observe what performance behaviors your supervisor rewards and use this as feedback on your own performance' (monitoring) and to 'seek information from [their] supervisor about

[their] work performance' (inquiry). The scale ranged from 1 (*very infrequently*) to 6 (*very frequently*). As has been suggested in the literature (Anseel et al., 2015; Moss et al., 2019), we combined all seven items to create an overall FSB construct.

3.2.6 FAB

A six-item scale developed by Moss et al. (2003) was used to measure FAB. Participants were asked to visualize themselves in a situation in which they did not perform well and indicate the likelihood of their engaging in six different types of FAB, such as 'hiding from my supervisor' and 'avoiding eye contact with my supervisor so that he/she did not start a conversation with me about my performance'. Participants were asked to respond to the items using a six-point scale (where 1 = *very unlikely* and 6 = *very likely*).

3.2.7 Control variables

To account for variation in the full feedback experience, we measured and controlled for positive feedback to separate the effects of positive and negative feedback. For consistency with the negative feedback measure, we modified the five-item scale for positive feedback developed by Steelman et al. (2014). A sample item of the scale states: 'I receive positive feedback from my supervisor' (1 = *never* and 6 = *always*). We also controlled for employee demographics of age, gender, education, organizational tenure and dyadic tenure, as such factors could affect employees' FSB and FAB (Anseel et al., 2015; Pan & Lin, 2015; Miller & Karakowsky, 2005).

4. Results

4.1 Confirmatory factor analysis

As all variables were reported by employees, a confirmatory factor analysis (CFA) was conducted in Mplus Version 7.4 to examine the distinctiveness of the seven self-reported scales. Due to the small sample size ($N = 220$), the measurement model was validated using item parcels for FSB, since it is a high-order construct (Moss et al., 2019; Zhang & Bartol,

2010). We constructed two parcels based on the inquiry and monitoring dimensions of FSB.

As Table 1 shows, the theorized seven-factor model provided an adequate fit to the data ($\chi^2(506) = 1058.18$, CFI = .93, TLI = .92, RMSEA = .07), which were better than those of all the alternative models.

4.2 Descriptive statistics and correlations

Table 2 sets out the means, standard deviations, reliabilities and correlations of the variables. The reliabilities for all measures were acceptable. Negative feedback was positively correlated with frustration ($r = .22$, $p < .01$) and frustration was positively correlated with FAB ($r = .24$, $p < .01$). OBSE was positively correlated with FSB ($r = .30$, $p < .01$). The relationship between negative feedback and OBSE was negative as expected; however, the zero-order correlation was not significant ($r = -.03$, $n.s.$).

4.3 Hypothesis testing

Hypothesis 1 predicted that OBSE would mediate the negative relationship between supervisor negative feedback and FSB. After controlling for demographic variables and supervisor positive feedback, supervisor negative feedback was negatively and significantly related to OBSE ($b = -.07$, $p < .10$) and OBSE was positively related to FSB ($b = .43$, $p < .01$) (see Models 2 and 6 in Table 3). PROCESS 2.11 developed by Hayes (2012) was employed to undertake the mediation analyses. With 5,000 bootstrap replications, a negative indirect effect was found between supervisor negative feedback and FSB via OBSE (estimate = -.03, 95% CI = [-.08, -.004]; see Table 4). Thus, the results supported Hypothesis 1. Although it was not hypothesized that frustration would have a mediating role between negative feedback and FSB, the indirect effects were calculated in the same model. No indirect effect was found (95% CI = [-.02, .05])

Table 1. Comparison of measurement models

Models	χ^2	df	$\Delta\chi^2(\Delta df)$	CFI	TLI	RMSEA
0: The hypothesized 7-factor model	1058.18	506		.93	.92	.07
1: 6-factor model combining FSB and FAB	1529.71	512	471.53(6)	.87	.86	.10
2: 6-factor model combining OBSE and frustration	1600.24	512	542.06(6)	.86	.85	.10
3: 6-factor model combining supervisor positive and negative feedback	1735.53	512	677.35(6)	.85	.83	.10
4: 5-factor model combining supervisor positive feedback, negative feedback, and LMX	2157.09	517	1098.91(11)	.80	.78	.12
5: 3-factor model combining supervisor positive feedback and negative feedback, combining two mediators, and combining FSB and FAB	2734.77	521	1676.59(15)	.72	.70	.14
6: 2-factor model combining FSB and FAB, and combining others together	3884.16	526	2825.98(20)	.58	.55	.17
7: A single factor combining all variables together	6345.38	527	5287.20(21)	.28	.23	.22

Table 2. Descriptive statistics, correlations and reliabilities among variables

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Age (years)	33.31	6.86												
2. Gender	1.32	.47	-.13*											
3. Education	2.06	.71	-.22**	.02										
4. Tenure	7.61	4.13	.42**	-.08	.04									
5. Dyadic tenure	3.79	3.53	.13	-.06	-.04	.48**								
6. Supervisor positive feedback	4.68	1.06	.04	-.15*	-.06	-.04	.10	(.93)						
7. Supervisor negative feedback	3.78	1.29	.00	-.03	.10	.14*	.17**	.20**	(.92)					
8. Leader-member exchange	4.68	.89	.18**	-.17*	-.08	.12	.11	.66**	.14*	(.92)				
9. Organization-based self-esteem	4.80	.74	.09	-.17*	-.07	-.01	.04	.45**	-.03	.59**	(.91)			
10. Frustration	2.48	1.32	.01	-.00	.02	.10	-.03	-.16*	.22**	-.18**	-.23**	(.93)		
11. Feedback-seeking behavior	4.02	1.24	-.00	-.12	.04	.08	.07	.25**	.14*	.31**	.30**	-.02	(.95)	
12. Feedback-avoiding behavior	2.58	1.46	.03	-.19**	-.04	.08	.12	-.06	.04	-.01	-.02	.24**	.27**	(.98)

Note: ** $p < .01$, * $p < .05$. Reliability coefficients are on the diagonal.

Table 3. Results of hierarchical regression analysis

	OBSE		Frustration		Feedback-seeking behavior		Feedback-avoiding behavior	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Controls								
Age	.01	.01	-.01	-.01	-.01	-.01	-.00	-.00
Gender	-.15	-.15	-.06	-.07	-.22	-.15	-.61**	-.58**
Education	-.03	-.01	-.02	-.07	.06	.07	-.09	-.07
Tenure	-.01	-.00	.05†	.04	.03	.03	.00	-.01
Dyadic tenure	-.00	.00	-.03	-.04	-.00	-.00	.05	.06†
Supervisor positive feedback	.30**	.32**	-.18*	-.25**	.27**	.14	-.16	-.11
Independent variable								
Supervisor negative feedback		-.07†		.27**	.07	.09	.05	-.02
Mediators								
OBSE						.43**		.07
Frustration						.03		.28**
R^2	.22	.23	.04	.11	.09	.14	.06	.12
ΔR^2		.01†		.07**		.05**		.06**

Note: ** $p < .01$, * $p < .05$, † $p < .10$. Coefficients are unstandardized.

Table 4. Results of the mediating effects

	Estimate	SE	Bootstrapping 95% CI
Supervisor negative feedback → OBSE → FSB	-.03	.02	[-.08, -.004]
Supervisor negative feedback → Frustration → FSB	.01	.02	[-.02, .05]
Supervisor negative feedback → Frustration → FAB	.08	.03	[.02, .16]
Supervisor negative feedback → OBSE → FAB	-.005	.01	[-.03, .01]

Hypothesis 2 predicted that frustration would play a mediating role between supervisor negative feedback and FAB. As Models 4 and 8 in Table 3 show, supervisor negative feedback was positively related to frustration ($b = .27$, $p < .01$), which was positively related to FAB ($b = .28$, $p < .01$). In support of Hypothesis 2, the bootstrap results revealed an indirect effect of .08 (95% CI = [.02, .16]). Similarly, the indirect effect of supervisor negative feedback on FAB via OBSE was also examined; however, neither the relationship between OBSE and FAB ($b = .07$, $n.s.$) nor the indirect effect were significant (95% CI = [-.03, .01]).

Hypotheses 3 and 4 were concerned with the moderating role of LMX and the effects of supervisor negative feedback on OBSE and frustration. As Models 3 and 6 in Table 5 show, the interaction effect of supervisor negative feedback and LMX significantly predicted OBSE ($b = .13$, $p < .01$) and frustration ($b = .16$, $p < .01$). Results of the simple slope tests (Aiken & West, 1991) revealed that the effect of supervisor negative feedback on OBSE was significant and negative for employees with low-quality LMX relationships ($b = -.20$, $p < .01$), but was not significant for those with high-quality LMX relationships ($b = .03$, $n.s.$; see Figure 2). Using the same procedure, results showed that the higher the quality of the LMX relationship, the greater the effect supervisor negative feedback had on frustration ($b = .40$, $p < .01$; see Figure 3). Conversely, low-quality LMX relationships led to a nonsignificant effect ($b = .11$, $n.s.$). In general, the results suggest that LMX weakens the negative association between supervisor negative feedback on OBSE, but strengthens its positive effect on frustration. Thus, both Hypotheses 3 and 4 were supported.

Table 5. Results of the moderating effects of LMX

	OBSE			Frustration		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Controls						
Age	.01	.00	.00	-.01	-.00	-.00
Gender	-.15	-.11	-.09	-.07	-.10	-.08
Education	-.01	-.00	-.00	-.07	-.08	-.08
Tenure	-.00	-.01	-.01	.04	.04	.05
Dyadic tenure	.00	.00	.00	-.04	-.04	-.05†
Supervisor positive feedback	.32**	.08	.12*	-.25**	-.11	-.05
Independent variable						
Supervisor negative feedback	-.07†	-.07*	-.09**	.27**	.27**	.25**
Moderator						
LMX		.44**	.48**		-.26*	-.22†
Interaction						
Supervisor negative feedback × LMX			.13**			.16**
R^2	.23	.38	.44	.11	.12	.15
ΔR^2		.15**	.06**		.01*	.03**

Note: ** $p < .01$, * $p < .05$, † $p < .10$. Coefficients are unstandardized.

Table 6. Results of moderated mediation effects

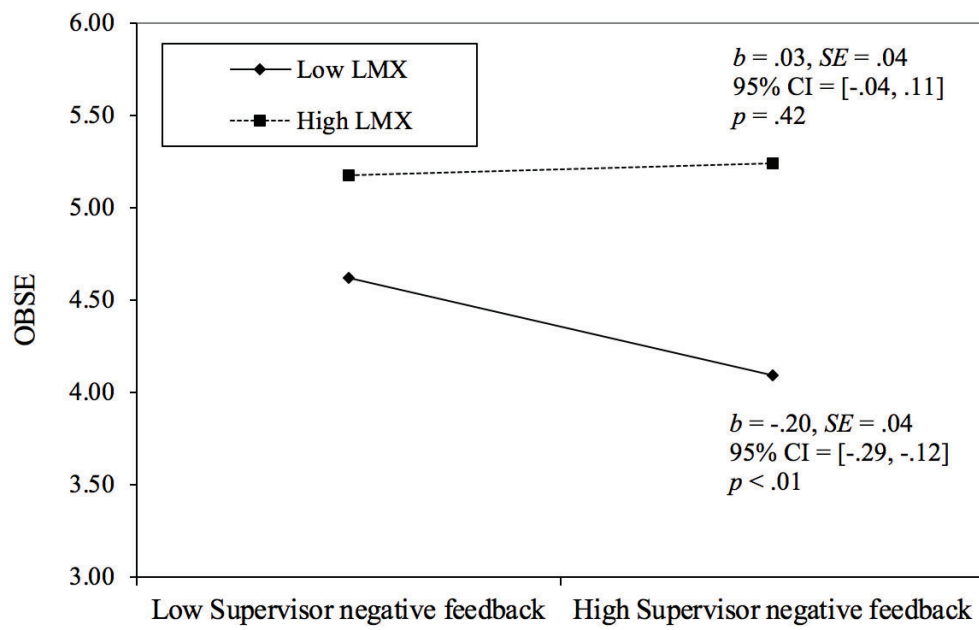| Model	Index of moderated mediation effect	Bootstrapping 95% CI	Moderator (LMX)	Indirect effect	SE	Bootstrapping 95% CI
Supervisor negative feedback → OBSE → FSB	.57	[.02, .10]	High	.01	.02	[-.01, .05]
			Low	-.09	.03	[-.17, -.04]
Supervisor negative feedback → Frustration → FAB	.05	[.003, .12]	High	.11	.05	[.04, .22]
			Low	.03	.03	[-.02, .10]

Figure 2. The moderating effect of LMX on the relationship between supervisor negative feedback and OBSE
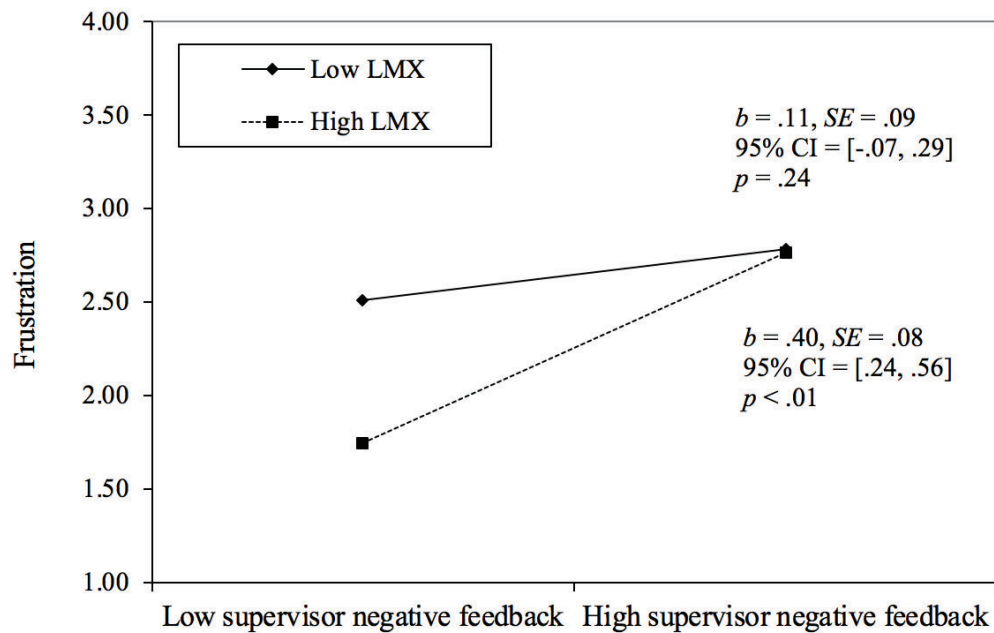

Figure 3. The moderating effect of LMX on the relationship between supervisor negative feedback and frustration

Based on the mediation and moderation effects, further tests were conducted to examine the moderated mediation effects proposed by Hypotheses 5 and 6. The results are summarized in Table 6. In relation to the 'cognition' pathway, LMX weakens the indirect effects of supervisor negative feedback on FSB via OBSE (index = .57, 95% CI = [.02, .10]). The indirect effect was stronger (b = -.09, 95% CI = [-.17, -.04]) when the quality of the LMX relationship was low than when it was high (b = .01, 95% CI = [-.01, .05]). Thus, Hypothesis 5 was supported. In relation to the 'affect' pathway, LMX significantly strengthened the indirect effect on FAB via frustration (index = .05, 95% CI = [.003, .12]). The indirect effect was stronger (b = .11, 95% CI = [.04, .22]) when the quality of the LMX relationship was high than when it was low (b = .03, 95% CI = [-.02, .10]). Thus, Hypothesis 6 was supported.

5. Discussion

We integrated the CAPS framework and COR to demonstrate that OBSE and frustration are mechanisms that underlie the effects of supervisor negative feedback on FSB and FAB respectively. Further, we showed that LMX had a 'double-edged' moderating effect on these two mechanisms. Specifically, high-quality LMX attenuates the negative effects of supervisor negative feedback on OBSE and FSB but amplifies the positive effects on frustration and FAB. Results from the two-wave survey of 220 employees support our hypotheses.

5.1 Theoretical implications

First, one of the major contributions of this study is the finding about the effects of negative feedback on FSB and FAB, which can be integrated into the traditional literature on feedback (i.e., feedback given; DeNisi & Sockbeson, 2017) and the research on feedback management. Traditionally, researchers have viewed feedback as a one-way process whereby managers either give feedback and employees act on that feedback, or employees seek or

avoid feedback based on specific factors, such as personality, leadership style and organizational context (Ashford et al., 2016). Some research has examined the supportiveness of the overall feedback environment as an antecedent of FSB (e.g., Young & Steelman, 2015; Whitaker et al., 2007); however, the specific factors driving how feedback affects such behavior requires further investigation to identify any unique effects. Our study revealed that negative feedback affected consequent self-initiative behaviors related to managing feedback and thus showed that feedback is a two-way process. Specifically, these results showed that the type of feedback provided by supervisors affects employees' future decisions about their FSB and FAB (Anseel et al., 2015). Thus, our study provided empirical evidence of the interplay between supervisors and employees in relation to feedback and extends both our understanding of how feedback is given and how employees manage feedback.

Second, by exploring the different mechanisms of FSB and FAB, the study revealed the underlying motivational dynamics of the two different feedback management behaviors. Theories have suggested that some work behaviors are primarily driven by cognitive evaluations, while others are driven by affect (Weiss & Cropanzano, 1996). Empirically, the relative contribution of cognition and affect on work behaviors has already been examined (e.g., Dionisi & Barling, 2019; Lee & Allen, 2002). While previous studies have focused on the common antecedents of FSB and FAB (e.g., Moss et al., 2003, 2019), this study showed that these two behaviors are predicted by different factors.

Notably, employees' cognitive appraisal of their self-concept can effectively predict their desire to seek rather than avoid feedback. Thus, FSB may be better understood to be the result of employees' thoughtful evaluations rather than resulting from their immediate affective experiences. These findings are consistent with the idea that instrumental, ego-based and image-based motives underlie FSB (Ashford et al., 2003). One common assumption in FSB research is that employees will engage in a benefit and cost analysis to decide whether

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to seek feedback (Anseel et al., 2015) and that FSB consequently largely involves a cognitive assessment. Previous research has shown that employees' high self-efficacy, self-confidence and general self-esteem can positively predict the likelihood of their seeking feedback (Ashford et al., 1986; Bernichon, Cook, & Brown, 2003; Dimotakis et al., 2017). The present study found similar results in relation to OBSE, which is another cognitive status that reflects the specific self-concept of employees' worth and competence as organizational members (Bowling et al., 2010; Pierce et al., 1989). These results reinforce the growing body of research that emphasizes the critical role of self-concept cognition in determining FSB.

Conversely, these results also showed that a specific negative emotion (i.e., frustration) can predict employees' tendency to avoid rather than seek further feedback. Employees' negative emotions about their work conditions play a more powerful role in predicting FAB than the variable of cognition. Thus, FAB may be better understood, at least in part, as an expressive emotional behavior. In support of our argument, Frederikson and Dewe (1996) showed that frustration leads to greater use of the avoidance coping response.

Third, by illustrating the 'double-edged' moderating effect of LMX, this study has begun to integrate previous conflicting results about the role of LMX. Two competing perspectives emerge that could explain how LMX shapes employees' responses to negative employment experiences (Restubog, Bordia, Tang, & Krebs, 2010). The argument for a buffering effect suggests that LMX may provide external resources that help employees cope with any initial negative effects (e.g., Harris, Harris, & Harvey, 2008). Conversely, the argument for an amplifying effect suggests that negative work events represent a form of betrayal in a high-quality relationship and thus have greater detrimental effects (e.g., Wang et al., 2015). Our findings showed that following negative feedback, LMX can both replenish and exhaust employees' resources, depending on the kind of resources employees have lost. Specifically, high-quality LMX relationships can mitigate the depletion of cognitive

resources, lessening the negative effects of negative feedback on OBSE and FSB. High-quality LMX relationships can also exacerbate the depletion of affective resources, amplifying the positive effects of supervisor negative feedback on frustration and FAB. LMX is subject to power differentials and is more transactional in nature and less affect-involving (McCarthy, Trougakos, & Cheng, 2015). Thus, support from supervisors is more relevant to the cognitive process than it is to the affective process. Our results are consistent with previous findings that LMX magnifies the relationship between negative work events such as abusive supervision and affective status, including satisfaction (Lian et al., 2012) and emotional exhaustion (Wang et al., 2015). Therefore, this study revises the one-sided view of LMX and allows a more comprehensive understanding of it.

Finally, we separated negative from positive feedback and controlled for the latter to examine the distinct explanatory power of the former. Previous studies have suggested that negative feedback is at the opposite end of the spectrum to positive feedback; however, this conceptualization may be problematic, as it confounds the combined effects of the two types of feedback on employees (Kim & Kim, in press). In organizations, both negative and positive feedback may occur relatively independently (Kim & Kim, in press; Steelman et al., 2004); that is, a supervisor may simultaneously provide positive feedback on some tasks and negative feedback on others. After combining negative and positive feedback in the confirmatory factor analysis, the fit of the measurement model significantly worsened (see Table 1). Further, the finding that negative and positive feedback were only weakly correlated in this study ($r = .20$) provides further support for an approach under which positive and negative feedback are examined separately (Steelman et al., 2004).

5.2 Practical implications

The research findings also have practical implications for organizations and managers. First, the study illustrated the cyclical nature of feedback processes. Organizations

and managers need to assist employees by providing ongoing feedback to encourage them to continuously strive to improve their performance. Thus, promoting FSB and limiting FAB will prove critical in organizations (Moss et al., 2019). The results also show that negative feedback may inhibit FSB and promote FAB via cognitive dissonance and negative emotional experiences. These findings emphasize that supervisors need to develop their feedback delivery and coaching skills to reduce the potential cognitive and affective burden that can result from the provision of negative feedback. For example, supervisors could clarify the reasons behind any evaluations and provide detailed instructions that employees can follow to improve poor performance. Supervisors could also adopt principles from positive psychology to avoid injuring employees' feelings (e.g., supervisors could display empathic concern when delivering negative feedback; Young et al., 2017).

For supervisors, the results also highlighted that a high-quality relationship with a subordinate is not an antidote to every potentially problematic situation. Supervisors need to be mindful that high-quality relationships create and impose higher expectations. Consequently, negative information about employees' performance can elicit greater frustration. Supervisors could adopt their communication strategies to ascertain employees' expectations and enable them to release their frustrating experiences. Conversely, employees in low-quality relationships may lack input and guidance from their supervisors, two factors critical to the maintenance of positive self-concept. Supervisors should perhaps also realize the needs of employees and provide them with the necessary support to enhance their performance.

5.3 Limitations and future research

First, although all variables in this study were self-reported, it is important to note the modeling process is largely intra-psychic, and that employees may therefore be the most appropriate source for reports of FSB and FAB (Moss et al., 2019). Second, while we

adopted a multi-wave design and collected data at two time points to avoid common method bias, the causality in our model must be interpreted with some caution, as the interval between the two surveys was only two months. Third, the study was conducted at a single organization. This may raise concerns about the generalizability of the results. Using data from a single company inherently ensures the homogeneity of the organizational context and enhances internal validity; however, the proposed relationships should be further investigated at multiple organizations and in different industries. Finally, Chinese employees may be more sensitive to interactions with their supervisors than Western employees, as China is a relational-oriented society. Further studies could explore cultural differences as a boundary condition of the proposed relationships.

The study also revealed several avenues for future research. First, this study focused on OBSE and frustration, respectively, as the focal cognitive and affective processes linking supervisor negative feedback and feedback management behaviors. Future research could enhance the explanatory power of cognitive and affective mechanisms by examining other mediators. These relationships may also pass through additional mechanisms that could be examined together with the current mechanisms in future research. For example, by influencing employees' self-motives, supervisor negative feedback may affect their subsequent behaviors (Anseel et al., 2007). Second, this study focused on the process linking feedback to feedback management behaviors. Future research could extend the process to include any subsequent responses after FSB and FAB, such as supervisors' interpretations of any such behaviors and employees' in-role and extra-role performances (Anseel et al., 2015).

6. Conclusion

This study sought to understand how and when supervisor negative feedback affects two distinct types of feedback management behavior, FSB and FAB. The differential mediations by cognitive and affective resource depletion add to our knowledge of the

antecedents and nature of these two types of behavior. The double-edged moderating role of LMX further demonstrated that it has the potential to mitigate or exacerbate these resources and processes and could be used to generate a more comprehensive understanding in the context of leader-member feedback exchange. Our hope is that these research findings may be used to enhance productive feedback processes in organizations.

7. References

Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Thousand Oaks, CA: Sage.

Anderson, C. A., & Bushman, B. J. (2002). Human aggression. *Annual Review of Psychology, 53*, 27–51.

Anseel, F., Beatty, A. S., Shen, W., Lievens, F., & Sackett, P. R. (2015). How are we doing after 30 years? A meta-analytic review of the antecedents and outcomes of feedback-seeking behavior. *Journal of Management*, *41*(1), 318–348.

Ashford, S. J. (1986). Feedback-seeking in individual adaptation: A resource perspective. *Academy of Management Journal*, *29*(3), 465–487.

Ashford, S. J., & Cummings, L. L. (1983). Feedback as an individual resource: Personal strategies of creating information. *Organizational Behavior and Human Performance*, *32*(3), 370–398.

Ashford, S. J., De Stobbeleir, K., & Nujella, M. (2016). To seek or not to seek: Is that the only question? Recent developments in feedback-seeking literature. *Annual Review of Organizational Psychology and Organizational Behavior*, *3*, 213–239.

Audia, P. G., & Locke, E. A. (2003). Benefiting from negative feedback. *Human Resource Management Review*, *13*(4), 631–646.

Baranik, L. E., Wang, M., Gong, Y., & Shi, J. (2017). Customer mistreatment, employee health, and job performance: Cognitive rumination and social sharing as mediating mechanisms. *Journal of Management*, *43*(4), 1261–1282.

Barclay, L. J., & Kiefer, T. (2014). Approach or avoid? Exploring overall justice and the differential effects of positive and negative emotions. *Journal of Management*, *40*(7), 1857–1898.

Baumeister, R. F., Tice, D. M., & Hutton, D. G. (1989). Self-presentational motivations and personality differences in self-esteem. *Journal of Personality*, *57*(3), 547–579.

Belschak, F. D., & Den Hartog, D. N. (2009). Consequences of positive and negative feedback: The impact on emotions and extra-role behaviors. *Applied Psychology*, *58*(2), 274–303.

Bernichon, T., Cook, K. E., & Brown, J. D. (2003). Seeking self-evaluative feedback: The interactive role of global self-esteem and specific self-views. *Journal of Personality and Social Psychology*, *84*(1), 194–204.

Bowling, N. A., Eschleman, K. J., Wang, Q., Kirkendall, C., & Alarcon, G. (2010). A meta-analysis of the predictors and consequences of organization-based self-esteem. *Journal of Occupational and Organizational Psychology*, *83*(3), 601–626.

Chen, X. P. (2002). Leader behaviors and employee turnover. In A. Tsui & C.-M. Lau, (Eds.), *The management of enterprises in the People's Republic of China* (pp. 325–345). Norwell, MA: Kluwer Academic Publishers.

Chen, Z., Lam, W., & Zhong, J. A. (2007). Leader-member exchange and member performance: A new look at individual-level negative feedback-seeking behavior and team-level empowerment climate. *Journal of Applied Psychology*, *92*(1), 202–212.

Choi, B. K., Moon, H. K., & Nae, E. Y. (2014). Cognition-and affect-based trust and feedback-seeking behavior: The roles of value, cost, and goal orientations. *The Journal of Psychology*, *148*(5), 603–620.

Crocker, J., Karpinski, A., Quinn, D. M., & Chase, S. K. (2003). When grades determine self-worth: Consequences of contingent self-worth for male and female engineering and psychology majors. *Journal of Personality and Social Psychology*, *85*(3), 507–516.

Dansereau, F., Jr, Graen, G., & Haga, W. J. (1975). A vertical dyad linkage approach to leadership within formal organizations: A longitudinal investigation of the role making process. *Organizational Behavior and Human Performance*, *13*(1), 46–78.

De Jonge, J., & Dormann, C. (2006). Stressors, resources, and strain at work: A longitudinal test of the triple-match principle. *Journal of Applied Psychology*, *91*(6), 1359–1374.

DeNisi, A., & Sockbeson, C. E. S. (2018). Feedback sought vs feedback given: A tale of two literatures. *Management Research: Journal of the Iberoamerican Academy of Management*, *16*(4), 320–333.

Dimotakis, N., Mitchell, D., & Maurer, T. (2017). Positive and negative assessment center feedback in relation to development self-efficacy, feedback seeking, and promotion. *Journal of Applied Psychology*, *102*(11), 1514–1527.

Dionisi, A. M., & Barling, J. (2019). What happens at home doesn't stay at home: The role of family and romantic partner conflict in destructive leadership. *Stress and Health*, *35*(3), 304−317.

Eissa, G., & Lester, S. W. (2017). Supervisor role overload and frustration as antecedents of abusive supervision: The moderating role of supervisor personality. *Journal of Organizational Behavior*, *38*(3), 307–326.

Fox, S., Spector, P. E., & Miles, D. (2001). Counterproductive work behavior (CWB) in

    response to job stressors and organizational justice: Some mediator and moderator tests

    for autonomy and emotions. *Journal of Vocational Behavior*, *59*(3), 291–309.

Fredrickson, B. L. (1998). What good are positive emotions? *Review of General Psychology,*

    2(3), 300–319.

Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The

    broaden-and-build theory of positive emotions. *American Psychologist, 56*(3), 218–226.

Frederikson, L. G., & Dewe, P. J. (1996). A longitudinal study of appraisal and coping using

    repeated measures of stressor, importance, frustration and coping response. *Stress*

    Medicine, *12*(2), 81–91.

Furst, S. A., & Cable, D. M. (2008). Employee resistance to organizational change:

    Managerial influence tactics and leader-member exchange. *Journal of Applied*

    Psychology, *93*(2), 453–462.

Goodman, J. S., & Blum, T. C. (1996). Assessing the non-random sampling effects of subject

    attrition in longitudinal research. *Journal of Management*, *22*(4), 627–652.

Graen, G. B., & Uhl-Bien, M. (1995). Relationship-based approach to leadership:

    Development of leader-member exchange (LMX) theory of leadership over 25 years:

    Applying a multi-level multi-domain perspective. *The Leadership Quarterly*, *6*(2), 219–

    247.

Harvey, P., & Harris, K. J. (2010). Frustration-based outcomes of entitlement and the

    influence of supervisor communication. *Human Relations*, *63*(11), 1639–1660.

Halbesleben, J. R., Neveu, J. P., Paustian-Underdahl, S. C., & Westman, M. (2014). Getting

    to the 'COR': Understanding the role of resources in conservation of resources

    theory. *Journal of Management*, *40*(5), 1334–1364.

Harris, R. B., Harris, K. J., & Harvey, P. (2008). An examination of the impact of supervisor

on the relationship between job strains and turnover intention for computer

workers. *Journal of Applied Social Psychology*, *38*(8), 2108–2131.

Harvey, P., & Harris, K. J. (2010). Frustration-based outcomes of entitlement and the

influence of supervisor communication. *Human Relations*, *63*(11), 1639–1660.

Hayes, A. F. (2012). *PROCESS: A versatile computational tool for observed variable

mediation, moderation, and conditional process modeling*. Retrieved from

http://www.afhayes.com/

Hempel, P. S. (2008). Chinese reactions to performance feedback: Non-task attributions of

feedback intentions. *Asia Pacific Journal of Human Resources*, *46*(2), 196–219.

Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing

stress. *American Psychologist*, *44*(3), 513–524.

Ilies, R., & Judge, T. A. (2005). Goal regulation across time: The effects of feedback and

affect. *Journal of Applied Psychology*, *90*(3), 453–467.

Ilies, R., Judge, T. A., & Wagner, D. T. (2010). The influence of cognitive and affective

reactions to feedback on subsequent goals. *European Psychologist*, *15*(2), 121–131.

Johnson, G., & Connelly, S. (2014). Negative emotions in informal feedback: The benefits of

disappointment and drawbacks of anger. *Human Relations*, *67*(10), 1265–1290.

Kim, Y. J., & Kim, J. (in press). Is negative feedback good or bad for creativity? The role of

the direction of feedback flow. *Academy of Management Journal*.

Koopman, J., Lanaj, K., & Scott, B. A. (2016). Integrating the bright and dark sides of OCB:

A daily investigation of the benefits and costs of helping others. *Academy of

Management Journal*, *59*(2), 414–435.

Koopmann, J., Lanaj, K., Bono, J., & Campana, K. (2016). Daily shifts in regulatory focus: The influence of work events and implications for employee well-being. *Journal of Organizational Behavior*, *37*(8), 1293–1316.

Kuvaas, B., Buch, R., & Dysvik, A. (2017). Constructive supervisor feedback is not sufficient: Immediacy and frequency is essential. *Human Resource Management*, *56*(3), 519–531.

Lazarus, R. S. (1991). *Emotion and adaptation*. New York, NY: Oxford University Press.

Lee, J., & Peccei, R. (2007). Perceived organizational support and affective commitment: The mediating role of organization-based self-esteem in the context of job insecurity. *Journal of Organizational Behavior*, *28*(6), 661–685.

Lee, K., & Allen, N. J. (2002). Organizational citizenship behavior and workplace deviance: The role of affect and cognitions. *Journal of Applied Psychology*, *87*(1), 131–142.

Leung, K., Su, S., & Morris, M. W. (2001). When is criticism not constructive? The roles of fairness perceptions and dispositional attributions in employee acceptance of critical supervisory feedback. *Human Relations*, *54*(9), 1155–1187.

Lian, H., Ferris, D. L., & Brown, D. J. (2012). Does taking the good with the bad make things worse? How abusive supervision and leader–member exchange interact to impact need satisfaction and organizational deviance. *Organizational Behavior and Human Decision Processes*, *117*(1), 41–52.

Lyubomirsky, S., & Nolen-Hoeksema, S. (1995). Effects of self-focused rumination on negative thinking and interpersonal problem solving. *Journal of Personality and Social Psychology*, *69*(1), 176–190.

Martin, L., & Tesser, A. 2006. Extending the goal progress theory of rumination: Goal reevaluation and growth. In L. J. Sanna & E. C. Chang (Eds.), *Judgments over time: The*

interplay of thoughts, feelings, and behaviors (pp. 145–160). New York: Oxford University Press.

McCarthy, J. M., Trougakos, J. P., & Cheng, B. H. (2016). Are anxious workers less productive workers? It depends on the quality of social exchange. *Journal of Applied Psychology*, *101*(2), 279–291.

Miller, D. L., & Karakowsky, L. (2005). Gender influences as an impediment to knowledge sharing: When men and women fail to seek peer feedback. *The Journal of Psychology*, *139*(2), 101–118.

Mischel, W., & Shoda, Y. (1995). A cognitive-affective system theory of personality: Reconceptualizing situations, dispositions, dynamics, and invariance in personality structure. *Psychological Review*, *102*(2), 246–268.

Moss, S. E., & Sanchez, J. I. (2004). Are your employees avoiding you? Managerial strategies for closing the feedback gap. *Academy of Management Perspectives*, *18*(1), 32–44.

Moss, S. E., Sanchez, J. I., Brumbaugh, A. M., & Borkowski, N. (2009). The mediating role of feedback avoidance behavior in the LMX–performance relationship. *Group & Organization Management*, *34*(6), 645–664.

Moss, S. E., Song, M., Hannah, S. T., Wang, Z., & Sumanth, J. J. (2019). The duty to improve oneself: How duty orientation mediates the relationship between ethical leadership and followers' feedback-seeking and feedback-avoiding behavior. *Journal of Business Ethics*. doi: 10.1007/s10551-018-4095-8

Moss, S. E., Valenzi, E. R., & Taggart, W. (2003). Are you hiding from your boss? The development of a taxonomy and instrument to assess the feedback management behaviors of good and bad performers. *Journal of Management*, *29*(4), 487–510.

Nahum-Shani, I., Henderson, M. M., Lim, S., & Vinokur, A. D. (2014). Supervisor support: Does supervisor support buffer or exacerbate the adverse effects of supervisor undermining? *Journal of Applied Psychology*, *99*(3), 484–503.

O'Malley, A. L., & Gregory, J. B. (2011). Don't be such a downer: Using positive psychology to enhance the value of negative feedback. *The Psychologist-Manager Journal*, *14*(4), 247–264.

Pan, S. Y., & Lin, K. J. (2015). Behavioral mechanism and boundary conditions of transformational process. *Journal of Managerial Psychology*, *30*(8), 970–985.

Peters, L. H., O'Connor, E. J., & Rudolf, C. J. (1980). The behavioral and affective consequences of performance-relevant situational variables. *Organizational Behavior and Human Performance*, *25*(1), 79–96.

Pierce, J. L., & Gardner, D. G. (2004). Self-esteem within the work and organizational context: A review of the organization-based self-esteem literature. *Journal of Management*, *30*(5), 591–622.

Pierce, J. L., Gardner, D. G., Cummings, L. L., & Dunham, R. B. (1989). Organization-based self-esteem: Construct definition, measurement, and validation. *Academy of Management Journal*, *32*(3), 622–648.

Preacher, K. J., Ducker, D. D., & Hayes, A. F. 2007. Addressing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate Behavioral Research, 42*(1), 185–227.

Restubog, S. L. D., Bordia, P., Tang, R. L., & Krebs, S. A. (2010). Investigating the moderating effects of leader–member exchange in the psychological contract breach–employee performance relationship: A test of two competing perspectives. *British Journal of Management*, *21*(2), 422-437.

Shu. R. & Liang, J. (2015). Unpacking the motivational process of ethical leadership: A self-concept perspective. *Chinese Journal of Management*, *12*(7), 1012–1020.

Song, M., Moss, S. E., & Gok, K. (2013). Antecedents and consequences of feedback avoiding behavior. *Academy of Management Proceedings*, *2013*(1), 11096.

Spector, P. E. (1997). The role of frustration in antisocial behavior at work. In R. A. Jiacalone & J. Greenberg (Eds.), *Anti-social behavior in organizations* (pp. 1–17). Thousand Oaks, CA: Sage.

Steelman, L. A., Levy, P. E., & Snell, A. F. (2004). The feedback environment scale: Construct definition, measurement, and validation. *Educational and Psychological Measurement*, *64*(1), 165–184.

Tepper, B. J., Moss, S. E., Lockhart, D. E., & Carr, J. C. (2007). Abusive supervision, upward maintenance communication, and subordinates' psychological distress. *Academy of Management Journal*, *50*(5), 1169–1180.

Tolli, A. P., & Schmidt, A. M. (2008). The role of feedback, causal attributions, and self-efficacy in goal revision. *Journal of Applied Psychology*, *93*(3), 692–701.

VandeWalle, D. (2003). A goal orientation model of feedback-seeking behavior. *Human Resource Management Review*, *13*(4), 581–604.

Weiss, H. M., & Cropanzano, R. (1996). Affective events theory: A theoretical discussion of the structure, causes and consequences of affective experiences at work. In B. M. Staw & L. L. Cummings (Eds.), *Research in organization behavior* (Vol. 19, pp. 1–74). Greenwich, CT: JAI Press.

Whitaker, B. G., & Levy, P. (2012). Linking feedback quality and goal orientation to feedback seeking and job performance. *Human Performance*, *25*(2), 159–178.

Whitaker, B. G., Dahling, J. J., & Levy, P. (2007). The development of a feedback environment and role clarity model of job performance. *Journal of Management*, *33*(4), 570–591.

Whitman, M. V., Halbesleben, J. R., & Holmes, O., IV (2014). Abusive supervision and feedback avoidance: The mediating role of emotional exhaustion. *Journal of Organizational Behavior*, *35*(1), 38–53.

Xanthopoulou, D., Baker, A. B., Heuven, E., Demerouti, E., & Schaufeli, W. B. (2008). Working in the sky: A diary study on work engagement among flight attendants. *Journal of Occupational Health Psychology*, *13*(4), 345–356.

Xu, A. J., Loi, R., & Lam, L. W. (2015). The bad boss takes it all: How abusive supervision and leader–member exchange interact to influence employee silence. *The Leadership Quarterly*, *26*(5), 763–774.

Young, S. F., & A. Steelman, L. A. (2014). The role of feedback in supervisor and workgroup identification. *Personnel Review*, 43(2), 228–245.

Young, S. F., Richard, E. M., Moukarzel, R. G., Steelman, L. A., & Gentry, W. A. (2017). How empathic concern helps leaders in providing negative feedback: A two-study examination. *Journal of Occupational and Organizational Psychology*, *90*(4), 535–558.

Zhang, X., & Bartol, K. M. (2010). Linking empowering leadership and employee creativity: The influence of psychological empowerment, intrinsic motivation, and creative process engagement. *Academy of Management Journal, 53*(1), 107–128.

Zingoni, M., & Byron, K. (2017). How beliefs about the self influence perceptions of negative feedback and subsequent effort and learning. *Organizational Behavior and Human Decision Processes*, *139*, 50–62.

Conclusion to Study Three

Study 3 extends the results of previous two studies in two aspects. First, Study 3 addressed the effects of negative feedback from both cognitive and affective perspectives. From the cognitive perspective, employee organization-based self-esteem mediated the negative effects of supervisor negative feedback on employees' feedback-seeking behavior. From the affective perspective, frustration mediated the positive effect of supervisor negative feedback on feedback-avoiding behavior. Leader-member exchange serves as a double-edged sword for employees, as it weakens the negative effects of supervisor negative feedback on employees' organization-based self-esteem, while strengthening the positive relationship between supervisor negative feedback and frustration. Second, Study 3 integrated the literature on giving of feedback and feedback management, extending beyond the idea that feedback is a one-way process whereby supervisors give feedback and employees passively act on that feedback. Study 3 revealed that negative feedback affected consequent self-initiative behaviors related to managing feedback and thus showed that feedback is a two-way process.

The three studies in this thesis combine to illustrate that both cognition and affect account for the impacts of negative feedback on employees. More importantly, the combined results suggest that the effectiveness of supervisor negative feedback varies depending on the characteristics of employees, the quality of the relationship between the supervisor and the employee, the feedback process, and the kind of outcomes. The results of all three studies, including their theoretical and practical implications, are further discussed in the general discussion in Chapter 5.

Chapter 5

General Discussion of Key Findings and Conclusions

This concluding chapter summarizes the key findings of the thesis. In this chapter, we integrate the results of the three empirical papers and discuss the theoretical and practical implications, as well as the limitations of the studies and directions for future research. Finally, an overall conclusion of the thesis is provided.

The thesis broadly aims to provide a nuanced understanding of the influences of negative feedback on employees' attitudes and behaviors, and to achieve this research aim, three empirical studies were conducted to test the effectiveness of negative feedback. The thesis has four overarching themes. First, the research provided evidence of the construct validity for informal negative feedback from supervisors in varied contexts. Second, the research examined different types of outcomes that follow feedback, including its effects on work motivation, well-being, performance, and feedback management behaviors. Third, the research investigated the role of both cognitive and affective responses in linking negative feedback and employee outcomes. Finally, the research examined the contingent factors of these negative feedback processes. Taken as a whole, the thesis unites cognitive and affective perspectives to investigate *how* and *when* negative feedback from supervisors influences employees' work outcomes.

1. Summary of findings

The hypotheses across the three studies were generally supported. The observed patterns of relationships across the three studies corroborate and extend previous findings on the consequences and contingencies of negative feedback.

1.1 Cognitive processes in response to negative feedback

Studies 1 and 3 (i.e., Chapters 2 and 4) broadened our understanding about how employees cognitively appraise and respond to negative feedback. Consistent with the propositions of the CAPS framework (Mischel & Shoda, 1995), negative feedback was found to influence employees' *construal and interpretations* of the feedback, as well as their

expectations and beliefs about their self-concept. The findings confirmed these influences in two ways: (1) by linking supervisor negative feedback with employees' interpretations about the motives behind such feedback in Study 1, and (2) by linking supervisor negative feedback with employees' organization-based self-esteem in Study 3.

In Study 1, we found two counterbalancing processes whereby external and internal motive attribution mediate the influence of supervisor negative feedback on motivation to learn. Attribution in the feedback literature focuses exclusively on the attribution that employees make in relation to their own performance (e.g., Silver, Mitchell, & Gist, 1995; Tolli & Schmidt, 2008). Those studies are based on an implicit assumption that employees view feedback as pertinent and intended to improve their performance, which is not always the case in organizations (Hempel, 2008). Our study illustrates the necessity of understanding what employees' see as the reasons that feedback has been provided. We took the first step in examining the mediating role of feedback motive attribution, which is regarded as a moderator of feedback effectiveness in Hempel's (2008) original work. Rather than merely interacting with feedback, employees' attribution can also be molded by feedback, especially when the information is delivered by managers (Hewett, Shantz, Mundy, & Alfes, 2018; Nishii, Lepak, & Schneider, 2008).

In Study 3, we provide support for the mediating role of organization-based self-esteem in the process that negative feedback exerts influences on employee behaviors. Results indicate that supervisor negative feedback tends to decrease employees' cognitive resources, which induces negative thoughts into their self-appraisal in the work context (i.e., OBSE). The negative relationship between negative feedback and OBSE corresponds with previous studies that demonstrated that negative feedback is associated with low self-efficacy (e.g., Dimotakis, Mitchell, & Maurer, 2017; Ilies, Judge, & Wagner, 2010; Hu, Creed, & Hood, 2019) and self-esteem (Crocker, Karpinski, Quinn, & Chase, 2003). Furthermore, the results

of Study 3 also indicate a unique impact of OBSE on feedback-seeking behavior: employees'

cognitive appraisals of their self-concepts can effectively predict their desire to seek rather

than avoid feedback. This finding is consistent with previous research showing that

employees' high self-efficacy, self-confidence, and general self-esteem can positively predict

the likelihood of their seeking feedback (Ashford, 1986; Bernichon, Cook, & Brown, 2003;

Dimotakis et al., 2017).

Taken together, the findings of Study 1 and 3 provide empirical evidence that supervisor

negative feedback elicits cognitive appraisal processes in an employee, including an

interpretation of the supervisor's motives for providing feedback as well as an evaluation of

the employee's self-value as a member of the organization. These interpretations and

evaluations in turn influence their motivations (specifically, their motivation to learn) and

behaviors (specifically, their FSB) at work. However, these relationships have boundary

conditions, further elaborated below.

1.2 Affective processes in response to negative feedback

Studies 2 and 3 (i.e., Chapters 3 and 4) extend previous findings on the affective

consequences of negative feedback. There is consistent evidence suggesting that negative

feedback generates employees' increased negative affect, which in turn leads to unfavorable

outcomes (e.g., Belschak & Den Hartog, 2009; Ilies & Judge, 2005; Young, Richard,

Moukarzel, Steelman, & Gentry, 2017). However, the specific utility of particular discrete

emotions is far from well understood. Our focus on the two emotions of shame in Study 2

and frustration in Study 3 enables us to examine the distinct motivational and behavioral

outcomes associated specifically with these particular emotions.

In Study 2, we found that daily supervisor negative feedback was positively associated

with employees' feelings of shame at the end of that workday. The findings further confirm

negative feedback's double-edged effects through shame. That is, shame positively predicts

individuals' emotional exhaustion, while negatively predicting next-day in-role and extra-role performance. The negative impact of shame on well-being corresponds with previous research suggesting that the intense and inward nature of shame leads to a lessening of employees' well-being (Kim, Thibodeau, & Jorgensen, 2011). Notably, although shame has a short-lived beneficial effect on next-day performance, a post hoc analysis revealed it negatively impacts in-role performance over longer periods of time (i.e., two to four days). The short-term and long-term perspectives provide some suggestions for a way to reconcile inconsistent findings over the effects of shame on behavioral outcomes.

In Study 3, we also found that supervisor negative feedback was positively associated with employees' frustration. This finding once again extends the research on the specific utilities of discrete emotions that arise following negative feedback. The results also indicate a unique impact of frustration on feedback-avoiding behavior. That is, employees' emotional experience of frustration can effectively predict their desire to avoid rather than seek feedback. This finding is consistent with the work of Frederikson and Dewe (1996), who found that frustration leads to a greater use of the avoidance coping response.

By not using an aggregated affective dimension, Studies 2 and 3 offer a better understanding of the critical role that discrete emotions play in linking negative feedback and employee outcomes: negative feedback increases the experience of shame and frustration, which in turn impair well-being and long-term performance and lead to the use of avoidance behavioral strategies. Similar to the cognitive reactions, the affective processes resulting from negative feedback also have boundary conditions as discussed in what follows.

1.3 Boundary conditions of the effectiveness of negative feedback

Given the high failure rate of negative feedback, researchers have paid much attention to the circumstances under which negative feedback provides informational value without being overridden by other processes (e.g., Brown, Kulik, & Lim, 2016; O'Malley & Gregory,

2011). All three studies in this thesis examined boundary conditions to illuminate factors that impact on the effectiveness of negative feedback, including dispositional and contextual factors. Studies 1 and 3 respectively examined the moderating roles of core self-evaluation (CSE) and leader-member exchange (LMX) in cognitive processes, while Studies 2 and 3 focused on the moderating effects of LMX in affective processes. The empirical evidence provides support for these two factors in determining employees' responses to supervisor negative feedback.

Regarding the cognitive processes, Study 1 suggests that CSE determines the way that individuals make attributions around negative feedback, which goes on to influence their motivation to learn at work. For individuals with a strong positive self-evaluation, negative feedback has a "bright side", and is effective in facilitating employee motivation to learn. However for those who view themselves as weak and vulnerable, negative feedback exhibits its dark side, and it is detrimental to motivation to learn. At the same time, Study 3 found that the LMX buffers the decrease in employees' OBSE after negative feedback. That is, high-quality LMX relationships serve as a form of social support that has informative value and can mitigate the cognitive burden elicited by negative feedback.

Regarding the affective processes, Studies 2 and 3 both reveal the dark-side effect of LMX in eliciting more negative emotions after negative feedback. Study 2 indicates that LMX amplifies frustration and its further impact on FAB, while Study 3 indicates that LMX amplifies the experience of shame after negative feedback. That is, employees may perceive negative feedback as being more threatening to their goal attainment and work progress if they have a strong relationship with the supervisor. These results are consistent with previous findings that LMX magnifies the relationship between negative work events such as abusive supervision and affective status, including satisfaction (Lian, Ferris, & Brown, 2012) and emotional exhaustion (Wang, Burlacu, Truxillo, James, & Yao, 2015).

Taken together, these findings provide empirical evidence for the contingent roles of CSE and LMX in determining the effectiveness of negative feedback. High-CSE employees are able to interpret negative feedback in positive ways. Notably, the moderating effects of LMX depend on whether the process is cognitive or affective. Although high LMX can mitigate the negative effects on self-value perceptions, it can also exacerbate the depletion of affective resources and amplify negative feedback's impact on negative emotions.

2. Theoretical implications

The research program contributes to the feedback literature in a number of important ways. First, the thesis provides evidence of the construct validity of informal supervisor negative feedback across two countries and three sectors. The construct is relevant given the importance of continuous performance management, which has been increasingly emphasized in recent years in both scholarly and popular literature (Adler et al., 2016; Buckingham & Goodall, 2015). The thesis also extends the current research approach to negative feedback from an exclusively between-person perspective to the within-person level. Through examining the construct at both two levels, this thesis further deepens our understanding of the phenomenon of supervisor negative feedback. Particularly in Study 2, by acknowledging that negative feedback fluctuates at the within-person level, this research creates a new perspective, focusing on the short-term and the activity of individual days, to examine the effectiveness of negative feedback. Due to the dynamic nature of employee performance on a day-to-day basis (Binnewies, Sonnentag, & Mojza, 2009), supervisors often need to communicate their expectations and evaluations through regular, informal feedback with their subordinates (Steelman et al., 2004). The current thesis extends the feedback research perspective to some degree to take account of this.

Second, by investigating supervisor negative feedback processes from multiple perspectives, this research program allows for a more nuanced view of the way such

processes influence employee behavior. The research develops a detailed and systematic

model of supervisor negative feedback with the CAPS model as the theoretical foundation,

which offers a more comprehensive and complementary understanding of how such feedback

works. We enrich the current understanding of the cognitive responses towards negative

feedback by highlighting the role of motive attribution and OBSE. In addition, by

investigating the distinctive attributes of shame and frustration, the thesis enriches our

knowledge of the emotional processes associated with feedback beyond the notion of

generalized affect. In doing this, we provide a response to the increasing calls for more

research on discrete emotions instead of general affect (e.g., Ashkanasy & Dorris, 2017;

Gooty, Gavin, & Ashkanasy, 2009; Lindebaum & Jordan,

Fourth, by investigating the moderating roles of employee's CSE and LMX, the research

program deepens our understanding of *which* employees' positive work behaviors are

effectively promoted by supervisor negative feedback and *which* employees have their well-

being enhanced by supervisor negative feedback, and under what conditions2012).. Kluger

and DeNisi's (1996) meta-analysis of the effectiveness of feedback found a large variance in

the effect size between studies, suggesting the importance of boundary conditions in the

effectiveness. Understanding moderating effects is likely to reconcile discrepancies in the

existing literature. In the present research, we highlight the importance of employees'

characteristics, since they are the recipients of negative feedback and directly address the

feedback during appraisal and response process, and we also highlight the role of the context

where the feedback occurs, since feedback delivery and reception does not occur in a vacuum

but rather in contexts with a dynamic interaction between supervisors and employees. By

revealing the buffering effect of CSE and LMX in the process of the elicitation of negative

cognitive interpretations, as well as the intensifying effect of LMX in this same process, we

extend the current limited knowledge of the effectiveness of negative feedback.

3. Practical implications

The primary aim of negative feedback is to enhance employees' work motivation and performance. However, such feedback is often inefficacious, and obstacles must be overcome for negative feedback to be beneficial (Audia & Locke, 2003). The issue of how to remove obstacles to the effective use of negative feedback has received considerable attention among practitioners. By investigating the results of negative feedback from multiple perspectives, this research program provides a number of practical implications for managers and organizations. In general, the research suggests that a one-size-fit-all approach for feedback practice is not appropriate. The findings highlight the importance of a consideration of employees' psychological states associated with negative feedback in any attempt to increase the probability of beneficial outcomes.

First, the research reveals the intermediate mechanisms underlying negative feedback processes, and this offers insights into how feedback is effective or dysfunctional. Practical recommendations are thus feasible for facilitating or inhibiting the outcomes of negative feedback. The findings generally suggest that employees tend to experience negative emotions after negative feedback, and that they cognitively interpret negative feedback feedback in various ways. On the one hand, supervisors need to draw on strategies to deliver negative feedback in a more appropriate way, for example by offering employees the necessary support and resources and by providing a clear explanation of the negative feedback to highlight its constructive purpose. By doing this, supervisors can enhance employees' positive appraisal of such feedback, while avoiding it being interpreted as a devaluation of employees' self-concepts. On the other hand, supervisors also need to lessen the negative emotions that are elicited by negative feedback, as this can weaken its negative influence on well-being, coping strategies, and performance.

Second, the research highlighted two important boundary conditions of negative feedback processes, employees' dispositional characteristics (i.e., CSE) and the quality of their relationship with the supervisor (i.e., LMX). According to Studies 1 and 3, employees with high CSE or high LMX tend to retain their self-efficacy and appraise feedback as beneficial. Consequently, these employees are more likely to be motivated to improve their performance, by seeking further feedback and by actively learning at work. Given this, organizations and managers could look to find ways to enhance employees' positive self-assessment. High-CSE applicants could receive more attention in the recruitment and selection process. Organizations could design interventions to assist employees with low CSE, such as self-efficacy training (McNatt & Judge, 2008) and self-restorative activities (Wiesenfeld et al., 1999), which in general can help employees boost self-confidence and resilience. Supervisors could try to build better relationships with more subordinates and provide more guidance to those in low-quality relationships to maintain their positive self-concept; for instance, supervisors could keep in regular contact with their employees and show interest in them, which has been demonstrated to be effective in improving relationship quality (Maslyn & Uhl-Bien, 2001).

However, based on Studies 2 and 3, the moderating effects of LMX also suggest that a good relationship cannot offset the adverse emotions elicited by negative feedback. Rather, having a good relationship may even backfire by eliciting stronger feelings of shame and frustration. Supervisors thus need to be particularly cautious when delivering negative feedback to employees with whom they have a good relationship. Those employees are likely to be more valuable and also more sensitive to supervisor evaluations, and thus harmed more by negative feedback. In this situation, interventions as listed above such as displaying interactive empathy, the use of appreciative inquiries, and the establishment of learning goals

are particularly important for managers as they can be used to facilitate positive emotions and increase the effectiveness of negative feedback (O'Malley & Gregory, 2011).

4. Limitations and directions for future research

Several limitations common to the three studies need to be considered in the light of the current findings. The first limitation concerns the generalizability of the results. The results of these studies and the implications developed from them may subject to certain boundaries. For example, with the exception of part of the first study, these empirical studies were all conducted in China. Although the data in Study 1 were collected both in the USA and in China, the research focus did not take account of specific cultural factors in the testing of the model. The rationale behind the theories and arguments in this thesis are not restricted to particular cultural contexts, however there are clearly still opportunities for in-depth cross-cultural testing between countries. In contrast to employees in Western cultures, Chinese employees may be more influenced by supervisors due to differences in authority and social position between supervisors and employees (Farh, Hackett, & Liang, 2007; Kirkman, Chen, Farh, Chen, & Lowe, 2009). Another aspect that could impact on the generalizability of the findings is that the data in this thesis were obtained from a variety of different industries (Study 1: the nursing sector; Study 2: the financial sector; Study 3: the manufacturing sector). The characteristics of the sample should be taken into consideration when it comes to the generalization of the current results.

Another limitation is that the research design of the three studies did not allow us to examine the causality of the hypothesized relationships, although we applied a temporal design in all three papers. In Study 1, the predictor, mediators, and outcome were collected in three waves with two-week intervals between them. In Study 2, all variables except performance outcome were collected simultaneously in daily surveys. In Study 3, the predictor and mediators were collected at Time 1, and the outcomes were collected at Time 2,

with a two-month interval between the two. Consequently causality among the various variables must be interpreted with caution, and also leads to potential concerns about reverse causality. Although we hypothesized the relationships based on a certain theoretical logic, other inferences could be made regarding the direction of causality. In particular, as feedback is provided on an ongoing basis (Anseel, Beatty, Shen, Lievens, & Sackett, 2015), the relationship between negative feedback and employee behavior may be cyclical. Studies with a longitudinal research design and cross-lagged modeling are required before drawing more definitive conclusions.

Furthermore, all three studies relied on self-reported measures, which can induce common method bias that may influence the observed relationship between measures (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). We invited employees to report their own behavioral outcomes, such as in-role and extra-role performance, which may have induced a response bias. At the same time, however, we undertook several procedures to minimize potential common method bias. For example, we separated variables temporally, and used clear and easy scale instructions (Podsakoff, MacKenzie, & Podsakoff, 2012). Nonetheless, to enhance the probability of accurate responses, future research could use multi-source rating, such as collecting performance data from supervisors or colleagues to provide additional evidence for the relationships.

There are several important directions that researchers may consider to further advance the literature on feedback. First, this research program investigated negative feedback both at an individual level and at a daily level. Indeed, most studies on feedback are still conducted at individual level. However, although such studies offer valuable insights into how to avoid obstacles in order to promote individual performance, they fail to take modern forms of working into account. Nowadays, work is often carried out in teams (Ilgen, Hollenbeck, Johnson, & Jundt, 2005), which raises the question of how negative feedback influences team

performance. In contrast to work at an individual level, teamwork requires cooperation and interaction among team members, making team processes complicated. Although there have been studies investigating feedback at the team level (e.g., DeShon, Kozlowski, Schmidt, Milner, & Wiechmann, 2004; Hoever, Zhou, & van Knippenberg, 2018), the effect of informal supervisor negative feedback on team processes and performance are not well understood. Future research may benefit from extending negative feedback research to incorporate team and higher levels into consideration.

Second, we focused on employees' immediate supervisor as the source of negative feedback in this research program, while in fact employees can receive feedback from various sources (Steelman et al., 2004). Nowadays, flat organizational structures and team-based work increase the frequency of interaction with coworkers. There is accumulating evidence about how coworkers exert influence on focal employees' work experiences (Chiaburu & Harrison, 2008). Although some research has already explored coworker feedback (e.g., Eva, Meacham, Newman, Schwarz, & Tham, 2019; Whitaker, Dahling, & Levy, 2007), our theoretical understanding of the influence of coworker negative feedback is far from complete, and so there are opportunities for future research to demonstrate the effect of coworker negative feedback, especially any unique effects it may have that are distinct from those of supervisor feedback. Given the critical roles that supervisors and coworkers fill within an organizational context, the characteristics of both and interactions with each of these may significantly influence employees' thoughts and feelings of feedback. Thus, future research should examine the joint roles of supervisor and coworkers in shaping employees' responses towards negative feedback.

Last but not least, the focus on negative feedback in this thesis does not intend to imply that positive feedback is unimportant. Positive feedback lets employees know they are doing the right thing, and this can facilitate the maintenance of effective action. Compared to

negative feedback, positive feedback is more motivational and flows more freely within organizations, since individuals are naturally receptive to positive evaluations and inclined to tell others good news (Audia & Locke, 2003). However, as pointed out by Kluger and DeNisi (1996), positive feedback can also lose its effect after individuals are repeatedly exposed to it. Future research thus may also consider the perspective of dysfunctional positive feedback and delineate such feedback in a more nuanced view.

5. Overall conclusion

This research program aimed to answer the question: "How and when does negative feedback influence employees' work attitudes and behaviors?" Drawing from the cognitive-affective processing system framework, the research builds on the literature on negative feedback in three important ways. First, the present research explained feedback motive attribution as a cognitive mechanism that determines the influence of supervisor negative feedback on an employee's motivation to learn. Second, the research examined the process by which negative feedback differentially impacts well-being and performance through shame as an affective mechanism. Third, the research highlighted the conjoint mechanisms of OBSE and frustration in determining different types of behavioral responses towards negative feedback. Employees' CSE and leader-member exchange were investigated as the boundary conditions of these processes.

In attaining these major aims, this research program has made theoretical and practical contributions. The findings generally suggest that negative feedback works as a double-edged sword which has both bright and dark-side effects, depending on the underlying processes, the outcomes being considered, and the boundary conditions. Therefore, rather than merely a conundrum, negative feedback can be effectively used for beneficial outcomes. It is hoped the findings of this research will inform feedback theory and practice to assist supervisors to better deliver negative feedback and employees to better benefit from negative feedback.

6. References

Adler, S., Campion, M., Colquitt, A., Grubb, A., Murphy, K., Ollander-Krane, R., & Pulakos, E. D. (2016). Getting rid of performance ratings: Genius or folly? A debate. *Industrial and Organizational Psychology: Perspectives on Science and Practice, 9*(2), 219–252.

Anseel, F., Beatty, A. S., Shen, W., Lievens, F., & Sackett, P. R. (2015). How are we doing after 30 years? A meta-analytic review of the antecedents and outcomes of feedback-seeking behavior. *Journal of Management*, *41*(1), 318–348.

Ashford, S. J. (1986). Feedback-seeking in individual adaptation: A resource perspective. *Academy of Management Journal*, *29*(3), 465–487.

Ashkanasy, N. M., & Dorris, A. D. (2017). Emotions in the workplace. *Annual Review of Organizational Psychology and Organizational Behavior*, *4*, 67–90.

Audia, P. G., & Locke, E. A. (2003). Benefiting from negative feedback. *Human Resource Management Review*, *13*(4), 631−646.

Belschak, F. D., & Den Hartog, D. N. (2009). Consequences of positive and negative feedback: The impact on emotions and extra-role behaviors. *Applied Psychology*, *58*(2), 274−303.

Bernichon, T., Cook, K. E., & Brown, J. D. (2003). Seeking self-evaluative feedback: The interactive role of global self-esteem and specific self-views. *Journal of Personality and Social Psychology*, *84*(1), 194–204.

Binnewies, C., Sonnentag, S., & Mojza, E. J. (2009). Daily performance at work: Feeling recovered in the morning as a predictor of day-level job performance. *Journal of Organizational Behavior*, *30*(1), 67–93.

Brown, M., Kulik, C. T., & Lim, V. (2016). Managerial tactics for communicating negative performance feedback. *Personnel Review*, *45*(5), 969−987.

Buckingham, M., & Goodall, A. (2015). Reinventing performance management. *Harvard Business Review*, *93*(4), 40−50.

Chiaburu, D. S., & Harrison, D. A. (2008). Do peers make the place? Conceptual synthesis and meta-analysis of coworker effects on perceptions, attitudes, OCBs, and performance. *Journal of Applied Psychology*, *93*(5), 1082−1103.

Crocker, J., Karpinski, A., Quinn, D. M., & Chase, S. K. (2003). When grades determine self-worth: Consequences of contingent self-worth for male and female engineering and psychology majors. *Journal of Personality and Social Psychology*, *85*(3), 507–516.

DeShon, R. P., Kozlowski, S. W., Schmidt, A. M., Milner, K. R., & Wiechmann, D. (2004). A multiple-goal, multilevel model of feedback effects on the regulation of individual and team performance. *Journal of Applied Psychology*, *89*(6), 1035–1056.

Dimotakis, N., Mitchell, D., & Maurer, T. (2017). Positive and negative assessment center feedback in relation to development self-efficacy, feedback seeking, and promotion. *Journal of Applied Psychology*, *102*(11), 1514−1527.

Eva, N., Meacham, H., Newman, A., Schwarz, G., & Tham, T. L. (2019). Is coworker feedback more important than supervisor feedback for increasing innovative behavior? *Human Resource Management*, *58*(4), 383−396.

Farh, J. L., Hackett, R. D., & Liang, J. (2007). Individual-level cultural values as moderators of perceived organizational support–employee outcome relationships in China: Comparing the effects of power distance and traditionality. *Academy of Management Journal*, *50*(3), 715–729.

Frederikson, L. G., & Dewe, P. J. (1996). A longitudinal study of appraisal and coping using repeated measures of stressor, importance, frustration and coping response. *Stress Medicine*, *12*(2), 81–91.

Gooty, J., Gavin, M., & Ashkanasy, N. M. (2009). Emotions research in OB: The challenges that lie ahead. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, *30*(6), 833–838.

Hempel, P. S. (2008). Chinese reactions to performance feedback: Non-task attributions of feedback intentions. *Asia Pacific Journal of Human Resources*, *46*(2), 196−219.

Hewett, R., Shantz, A., Mundy, J., & Alfes, K. (2018). Attribution theories in Human Resource Management research: A review and research agenda. *The International Journal of Human Resource Management*, *29*(1), 87−126.

Hoever, I. J., Zhou, J., & van Knippenberg, D. (2018). Different strokes for different teams: The contingent effects of positive and negative feedback on the creativity of informationally homogeneous and diverse teams. *Academy of Management Journal*, *61*(6), 2159−2181.

Hu, S., Creed, P. A., & Hood, M. (2019). Does socioeconomic status shape young people's goal revision processes in the face of negative career feedback? *Journal of Vocational Behavior*, *110*, 89−101.

Ilgen, D. R., Hollenbeck, J. R., Johnson, M., & Jundt, D. (2005). Teams in organizations: From input-process-output models to IMOI models. *Annual Review of Psychology*, *56*, 517−543.

Ilies, R., & Judge, T. A. (2005). Goal regulation across time: The effects of feedback and affect. *Journal of Applied Psychology*, *90*(3), 453−467.

Ilies, R., Judge, T. A., & Wagner, D. T. (2010). The influence of cognitive and affective reactions to feedback on subsequent goals. *European Psychologist, 15*(2), 121−131.

Kim, S., Thibodeau, R., & Jorgensen, R. S. (2011). Shame, guilt, and depressive symptoms: A meta-analytic review. *Psychological Bulletin, 137*(1), 68–96.

Kirkman, B. L., Chen, G., Farh, J. L., Chen, Z. X., & Lowe, K. B. (2009). Individual power

distance orientation and follower reactions to transformational leaders: A cross-level,

cross-cultural examination. *Academy of Management Journal*, *52*(4), 744–764.

Kluger, A. N., & DeNisi, A. (1996). The effects of feedback interventions on performance: A

historical review, a meta-analysis, and a preliminary feedback intervention

theory. *Psychological Bulletin*, *119*(2), 254−284.

Lian, H., Ferris, D. L., & Brown, D. J. (2012). Does taking the good with the bad make things

worse? How abusive supervision and leader–member exchange interact to impact

need satisfaction and organizational deviance. *Organizational Behavior and Human

Decision Processes*, *117*(1), 41–52.

Lindebaum, D., & Jordan, P. J. (2012). Positive emotions, negative emotions, or utility of

discrete emotions? *Journal of Organizational Behavior*, *33*(7), 1027–1030.

Maslyn, J. M., & Uhl-Bien, M. (2001). Leader-member exchange and its dimensions: Effects

of self-effort and other's effort on relationship quality. *Journal of Applied

Psychology*, *86*(4), 697−708.

McNatt, D. B., & Judge, T. A. (2008). Self-efficacy intervention, job attitudes, and turnover:

A field experiment with employees in role transition. *Human Relations*, *61*(6),

783−810.

Mischel, W., & Shoda, Y. (1995). A cognitive-affective system theory of personality:

Reconceptualizing situations, dispositions, dynamics, and invariance in personality

structure. *Psychological Review*, *102*(2), 246−268.

Nishii, L. H., Lepak, D. P., & Schneider, B. (2008). Employee attributions of the "why" of

HR practices: Their effects on employee attitudes and behaviors, and customer

satisfaction. *Personnel Psychology*, *61*(3), 503−545.

O'Malley, A. L., & Gregory, J. B. (2011). Don't be such a downer: Using positive

psychology to enhance the value of negative feedback. *The Psychologist-Manager

Journal*, 14(4), 247−264.

Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in

social science research and recommendations on how to control it. *Annual Review of

Psychology, 63*, 539–569.

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method

biases in behavioral research: A critical review of the literature and recommended

remedies. *Journal of Applied Psychology*, 88(5), 879–903.

Silver, W. S., Mitchell, T. R., & Gist, M. E. 1995. Responses to successful and unsuccessful

performance: The moderating effect of self-efficacy on the relationship between

performance and attributions. *Organizational Behavior and Human Decision

Processes*, 62(3), 286−299.

Steelman, L. A., Levy, P. E., & Snell, A. F. (2004). The Feedback Environment Scale:

Construct definition, measurement, and validation. *Educational and Psychological

Measurement, 64*(1), 165−184.

Tolli, A. P., & Schmidt, A. M. (2008). The role of feedback, causal attributions, and self-

efficacy in goal revision. *Journal of Applied Psychology*, 93(3), 692−701.

Wang, M., Burlacu, G., Truxillo, D., James, K., & Yao, X. (2015). Age differences in

feedback reactions: The roles of employee feedback orientation on social awareness

and utility. *Journal of Applied Psychology*, 100(4), 1296−1308.

Whitaker, B. G., Dahling, J. J., & Levy, P. (2007). The development of a feedback

environment and role clarity model of job performance. *Journal of

Management*, 33(4), 570–591.

Young, S. F., Richard, E. M., Moukarzel, R. G., Steelman, L. A., & Gentry, W. A. (2017).

    How empathic concern helps leaders in providing negative feedback: A two-study

    examination. *Journal of Occupational and Organizational Psychology*, *90*(4), 535–

    558.

Complete List of References

Adler, S., Campion, M., Colquitt, A., Grubb, A., Murphy, K., Ollander-Krane, R., & Pulakos, E. D. (2016). Getting rid of performance ratings: Genius or folly? A debate. *Industrial and Organizational Psychology: Perspectives on Science and Practice, 9*(2), 219–252.

Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Thousand Oaks, CA: Sage.

Alam, M., & Singh, P. (2019). Performance feedback interviews as affective events: An exploration of the impact of emotion regulation of negative performance feedback on supervisor–employee dyads. *Human Resource Management Review*. doi: 10.1016/j.hrmr.2019.100740.

Alessandri, G., Borgogni, L., & Latham, G. P. (2017). A dynamic model of the longitudinal relationship between job satisfaction and supervisor-rated job performance. *Applied Psychology*, *66*(2), 207–232.

Allpress, J. A., Brown, R., Giner-Sorolla, R., Deonna, J. A., & Teroni, F. (2014). Two faces of group-based shame: Moral shame and image shame differentially predict positive and negative orientations to ingroup wrongdoing. *Personality and Social Psychology Bulletin*, *40*(10), 1270–1284.

Anderson, C. A., & Bushman, B. J. (2002). Human aggression. *Annual Review of Psychology, 53*, 27–51.

Andiola, L. M. (2014). Performance feedback in the audit environment: A review and synthesis of research on the behavioral effects. *Journal of Accounting Literature*, *33*(1-2), 1−36.

Anseel, F., Beatty, A. S., Shen, W., Lievens, F., & Sackett, P. R. (2015). How are we doing after 30 years? A meta-analytic review of the antecedents and outcomes of feedback-seeking behavior. *Journal of Management*, *41*(1), 318–348.

Ashford, S. J. (1986). Feedback-seeking in individual adaptation: A resource

perspective. *Academy of Management Journal*, *29*(3), 465−487.

Ashford, S. J., & Cummings, L. L. (1983). Feedback as an individual resource: Personal

strategies of creating information. *Organizational Behavior and Human*

Performance, *32*(3), 370–398.

Ashford, S. J., De Stobbeleir, K., & Nujella, M. (2016). To seek or not to seek: Is that the

only question? Recent developments in feedback-seeking literature. *Annual Review of*

Organizational Psychology and Organizational Behavior, *3*, 213–239.

Ashforth, B.E., & Johnson, S. A. (2001). Which hat to wear? The relative salience of multiple

identities in organizational contexts. In M. A. Hogg & D. J. Terry (Eds.), *Social identity*

processes in organizational contexts (pp. 31–48). Philadelphia, PA: Psychology Press.

Ashkanasy, N. M., & Dorris, A. D. (2017). Emotions in the workplace. *Annual Review of*

Organizational Psychology and Organizational Behavior, *4*, 67–90.

Ashkanasy, N. M., Zerbe, W. J., & Härtel, C. E. J. (2019). Introduction: Emotions in

leadership. In N. M. Ashkanasy, W. J. Zerbe, & C. E. J. Härtel (Eds.), *Emotions and*

leadership (pp. xix–xxv). Warrington, UK: Emerald Publishing.

Atwater, L. E., Camobreco, J. F., Dionne, S. D., Avolio, B. J., & Lau, A. N. (1997). Effects

of rewards and punishments on leader charisma, leader effectiveness and follower

reactions. *The Leadership Quarterly*, *8*(2), 133–152.

Audia, P. G., & Locke, E. A. (2003). Benefiting from negative feedback. *Human Resource*

Management Review, *13*(4), 631−646.

Bagozzi, R. P., & Edwards, J. R. (1998). A general approach for representing constructs in

organizational research. *Organizational Research Methods*, *1*(1), 45–87.

Bagozzi, R. P., Verbeke, W., & Gavino, J. C., Jr. (2003). Culture moderates the self-regulation of shame and its effects on performance: The case of salespersons in the Netherlands and the Philippines. *Journal of Applied Psychology*, *88*(2), 219–233.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.

Bannister, B. D. (1986). Performance outcome feedback and attributional feedback: Interactive effects on recipient responses. *Journal of Applied Psychology*, *71*(2), 203–210.

Baranik, L. E., Wang, M., Gong, Y., & Shi, J. (2017). Customer mistreatment, employee health, and job performance: Cognitive rumination and social sharing as mediating mechanisms. *Journal of Management*, *43*(4), 1261–1282.

Barclay, L. J., & Kiefer, T. (2014). Approach or avoid? Exploring overall justice and the differential effects of positive and negative emotions. *Journal of Management*, *40*(7), 1857–1898.

Baumeister, R. F., Tice, D. M., & Hutton, D. G. (1989). Self-presentational motivations and personality differences in self-esteem. *Journal of Personality*, *57*(3), 547–579.

Beal, D. J. (2015). ESM 2.0: State of the art and future potential of experience sampling methods in organizational research. *Annual Review of Organizational Psychology and Organizational Behavior*, *2*, 383–407.

Bear, J. B., Cushenbery, L., London, M., & Sherman, G. D. (2017). Performance feedback, power retention, and the gender gap in leadership. *The Leadership Quarterly*, *28*(6), 721–740.

Belschak, F. D., & Den Hartog, D. N. (2009). Consequences of positive and negative feedback: The impact on emotions and extra-role behaviors. *Applied Psychology*, *58*(2), 274–303.

Bernichon, T., Cook, K. E., & Brown, J. D. (2003). Seeking self-evaluative feedback: The interactive role of global self-esteem and specific self-views. *Journal of Personality and Social Psychology*, *84*(1), 194–204.

Bezuijen, X. M., van Dam, K., van den Berg, P. T., & Thierry, H. (2010). How leaders stimulate employee learning: A leader-member exchange approach. *Journal of Occupational and Organizational Psychology*, *83*(3), 673–693.

Bezuijen, X. M., van den Berg, P. T., van Dam, K., & Thierry, H. (2009). Pygmalion and employee learning: The role of leader behaviors. *Journal of Management*, *35*(5), 1248−1267.

Billett, S., & Newman, J. (2010). Learning practice: Conceptualising professional lifelong learning for the health-care sector. In H. Bradbury, N. Frost, S. Kilminster & M. Zukas (Eds.), *Beyond reflective practice: New approaches to professional lifelong learning* (pp. 172−185). London: Routledge.

Binnewies, C., Sonnentag, S., & Mojza, E. J. (2009). Daily performance at work: Feeling recovered in the morning as a predictor of day-level job performance. *Journal of Organizational Behavior*, *30*(1), 67–93.

Bohns, V. K., & Flynn, F. J. (2013). Guilt by design: Structuring organizations to elicit guilt as an affective reaction to failure. *Organization Science, 24*(4), 1157–1173.

Bolino, M. (1999). Citizenship and impression management: Good soldiers or good actors? *Academy of Management Review, 24*(1), 82–98.

Bolino, M., Long, D., & Turnley, W. (2016). Impression management in organizations: Critical questions, answers, and areas for future research. *Annual Review of Organizational Psychology and Organizational Behavior, 3*(1), 377–406.

Bond, M. H., Wan, K. C., Leung, K., & Giacalone, R. A. (1985). How are responses to verbal

    insult related to cultural collectivism and power distance? *Journal of Cross-Cultural*

    Psychology,*16*(1), 111−127.

Bonner, J. M., Greenbaum, R. L., & Quade, M. J. (2017). Employee unethical behavior to

    shame as an indicator of self-image threat and exemplification as a form of self-image

    protection: The exacerbating role of supervisor bottom-line mentality. *Journal of*

    Applied Psychology, *102*(8), 1203–1221.

Bono, J. E., & Colbert, A. E. (2005). Understanding responses to multi-source feedback: The

    role of core self-evaluations. *Personnel Psychology*, *58*(1), 171−203.

Booth, J. E., Shantz, A., Glomb, T. M., Duffy, M. K., & Stillwell, E. E. (2019). Bad bosses

    and self-verification: The moderating role of core self-evaluations with trust in

    workplace management. *Human Resource Management*. doi: 10.1002/hrm.21982

Bowling, N. A., Eschleman, K. J., Wang, Q., Kirkendall, C., & Alarcon, G. (2010). A meta-

    analysis of the predictors and consequences of organization-based self-esteem. *Journal*

    of Occupational and Organizational Psychology, *83*(3), 601–626.

Breevaart, K., Bakker, A. B., & Demerouti, E. (2014). Daily self-management and employee

    work engagement. *Journal of Vocational Behavior*, *84*(1), 31–38.

Brett, J. F., & Atwater, L. E. (2001). 360° feedback: Accuracy, reactions, and perceptions of

    usefulness. *Journal of Applied Psychology*, *86*(5), 930−942.

Brislin, R. W. (1980). Translation and content analysis of oral and written materials. In H.

    Triandis & J. W. Berry (Eds.), *Handbook of cross-cultural psychology* (Vol. 2, pp.

    389–444). Boston, MA: Allyn & Bacon.

Brown, M., Kulik, C. T., & Lim, V. (2016). Managerial tactics for communicating negative

    performance feedback. *Personnel Review*, *45*(5), 969−987.

Bryson, A., Forth, J., & Stokes, L. (2017). Does employees' subjective well-being affect workplace performance? *Human Relations*, *70*(8), 1017–1037.

Buckingham, M., & Goodall, A. (2015). Reinventing performance management. *Harvard Business Review*, *93*(4), 40−50.

Burmeister, A., Fasbender, U., & Gerpott, F. H. (2019). Consequences of knowledge hiding: The differential compensatory effects of guilt and shame. *Journal of Occupational and Organizational Psychology, 92*(2), 281–304.

Burton, J. P., Taylor, S. G., & Barber, L. K. (2014). Understanding internal, external, and relational attributions for abusive supervision. *Journal of Organizational Behavior*, *35*(6), 871−891.

Buttny, R. (1993). *Social accountability in communication*. London: Sage.

Cannon, M. D., & Witherspoon, R. (2005). Actionable feedback: Unlocking the power of learning and performance improvement. *Academy of Management Perspectives*, *19*(2), 120−134.

Carlson, K. D., & Wu, J. (2012). The illusion of statistical control: Control variable practice in management research. *Organizational Research Methods*, *15*(3), 413–435.

Carver, C. S. (2004). Self-regulation of action and affect. In R. F. Baumeister & K. D. Vohs (Eds.), *Handbook of self-regulation: Research, theory, and applications* (pp. 13−39). New York: The Guilford Press.

Carver, C. S., & Scheier, M. F. (1998). *On the self-regulation of behavior*. New York: Cambridge University Press.

Chang, C. H., Ferris, D. L., Johnson, R. E., Rosen, C. C., & Tan, J. A. (2012). Core self-evaluations: A review and evaluation of the literature. *Journal of Management*, *38*(1), 81–128.

Chawla, N., Gabriel, A. S., da Motta Veiga, S. P., & Slaughter, J. E. (2019). Does feedback matter for job search self-regulation? It depends on feedback quality. *Personnel Psychology*. doi: 10.1111/peps.12320.

Chen, X. P. (2002). Leader behaviors and employee turnover. In A. Tsui & C.-M. Lau, (Eds.), *The management of enterprises in the People's Republic of China*(pp. 325–345). Norwell, MA: Kluwer Academic Publishers.

Chen, X., Liao, J., Wu, W., & Zhang, W. (2017). Perceived insider status and feedback reactions: A dual path of feedback motivation attribution. *Frontiers in Psychology*, *8*, 668.

Chen, Z., Lam, W., & Zhong, J. A. (2007). Leader-member exchange and member performance: A new look at individual-level negative feedback-seeking behavior and team-level empowerment climate. *Journal of Applied Psychology*, *92*(1), 202–212.

Cheung, J. H., Burns, D. K., Sinclair, R. R., & Sliter, M. (2017). Amazon Mechanical Turk in organizational psychology: An evaluation and practical recommendations. *Journal of Business and Psychology*, *32*(4), 347−361.

Chiaburu, D. S., & Harrison, D. A. (2008). Do peers make the place? Conceptual synthesis and meta-analysis of coworker effects on perceptions, attitudes, OCBs, and performance. *Journal of Applied Psychology*, *93*(5), 1082−1103.

Chiang, F. F., & Birtch, T. A. (2007). Examining the perceived causes of successful employee performance: An east-west comparison. *The International Journal of Human Resource Management*, *18*(2), 232–248.

Choi, B. K., Moon, H. K., & Nae, E. Y. (2014). Cognition-and affect-based trust and feedback-seeking behavior: The roles of value, cost, and goal orientations. *The Journal of Psychology*, *148*(5), 603–620.

Chun, J. U., Choi, B. K., & Moon, H. K. (2014). Subordinates' feedback-seeking behavior in supervisory relationships: A moderated mediation model of supervisor, subordinate, and dyadic characteristics. *Journal of Management & Organization*, *20*(4), 463–484.

Colquitt, J. A., LePine, J. A., & Noe, R. A. (2000). Toward an integrative theory of training motivation: A meta-analytic path analysis of 20 years of research. *Journal of Applied Psychology*, *85*(5), 678−707.

Crocker, J., Karpinski, A., Quinn, D. M., & Chase, S. K. (2003). When grades determine self-worth: Consequences of contingent self-worth for male and female engineering and psychology majors. *Journal of Personality and Social Psychology*, *85*(3), 507–516.

Culbertson, S. S., Henning, J. B., & Payne, S. C. (2013). Performance appraisal satisfaction: The role of feedback and goal orientation. *Journal of Personnel Psychology*, *12*(4), 189−195.

Daniels, M. A., & Robinson, S. L. (2019). The shame of it all: A review of shame in organizational life. *Journal of Management*, *45*(6), 2448–2473.

Dansereau, F., Jr, Graen, G., & Haga, W. J. (1975). A vertical dyad linkage approach to leadership within formal organizations: A longitudinal investigation of the role making process. *Organizational Behavior and Human Performance*, *13*(1), 46–78.

Dasborough, M. T., & Ashkanasy, N. M. (2002). Emotion and attribution of intentionality in leader-member relationships. *The Leadership Quarterly*, *13*(5), 615−634.

De Hooge, I. E., Breugelmans, S. M., & Zeelenberg, M. (2008). Not so ugly after all: When shame acts as a commitment device. *Journal of Personality and Social Psychology, 95*(4), 933–943.

De Hooge, I. E., Zeelenberg, M., & Breugelmans, S. M. (2010). Restore and protect motivations following shame. *Cognition & Emotion, 24*(1), 111–127.

De Jonge, J., & Dormann, C. (2006). Stressors, resources, and strain at work: A longitudinal test of the triple-match principle. *Journal of Applied Psychology*, *91*(6), 1359–1374.

Deng, H., & Leung, K. (2014). Contingent punishment as a double-edged sword: A dual-pathway model from a sense-making perspective. *Personnel Psychology*, *67*(4), 951−980.

Deng, H., Coyle-Shapiro, J., & Yang, Q. (2018). Beyond reciprocity: A conservation of resources view on the effects of psychological contract violation on third parties. *Journal of Applied Psychology*, *103*(5), 561–577.

DeNisi, A., & Sockbeson, C. E. S. (2018). Feedback sought vs feedback given: A tale of two literatures. *Management Research: Journal of the Iberoamerican Academy of Management*, *16*(4), 320–333.

DeShon, R. P., Kozlowski, S. W., Schmidt, A. M., Milner, K. R., & Wiechmann, D. (2004). A multiple-goal, multilevel model of feedback effects on the regulation of individual and team performance. *Journal of Applied Psychology*, *89*(6), 1035–1056.

Dienesch, R. M., & Liden, R. C. (1986). Leader-member exchange model of leadership: A critique and further development. *Academy of Management Review*, *11*(3), 618–634.

Dimotakis, N., Mitchell, D., & Maurer, T. (2017). Positive and negative assessment center feedback in relation to development self-efficacy, feedback seeking, and promotion. *Journal of Applied Psychology*, *102*(11), 1514−1527.

Dionisi, A. M., & Barling, J. (2019). What happens at home doesn't stay at home: The role of family and romantic partner conflict in destructive leadership. *Stress and Health*, *35*(3), 304−317.

Donovan, J. J., & Williams, K. J. (2003). Missing the mark: Effects of time and causal attributions on goal revision in response to goal-performance discrepancies. *Journal of Applied Psychology*, *88*(3), 379−390.

Dulebohn, J. H., Bommer, W. H., Liden, R. C., Brouer, R. L., & Ferris, G. R. (2012). A

meta-analysis of antecedents and consequences of leader-member exchange: Integrating

the past with an eye toward the future. *Journal of Management*, *38*(6), 1715–1759.

Eberly, M. B., Holley, E. C., Johnson, M. D., & Mitchell, T. R. (2011). Beyond internal and

external: A dyadic theory of relational attributions. *Academy of Management*

Review, *36*(4), 731−753.

Ehrhart, M. G., & Klein, K. J. (2001). Predicting followers' preferences for charismatic

leadership: The influence of follower values and personality. *The Leadership*

Quarterly, *12*(2), 153−179.

Eissa, G., & Lester, S. W. (2017). Supervisor role overload and frustration as antecedents of

abusive supervision: The moderating role of supervisor personality. *Journal of*

Organizational Behavior, *38*(3), 307–326.

Elfenbein, H. (2007). Emotion in organizations: A review and theoretical integration. *The*

Academy of Management Annals, *1*(1), 315–386.

Eva, N., Meacham, H., Newman, A., Schwarz, G., & Tham, T. L. (2019). Is coworker

feedback more important than supervisor feedback for increasing innovative

behavior? *Human Resource Management*, *58*(4), 383−396.

Fang, C., Kim, J. H., & Milliken, F. J. (2014). When bad news is sugarcoated: Information

distortion, organizational search and the behavioral theory of the firm. *Strategic*

Management Journal, *35*(8), 1186−1201.

Farh, J. L., Hackett, R. D., & Liang, J. (2007). Individual-level cultural values as moderators

of perceived organizational support–employee outcome relationships in China:

Comparing the effects of power distance and traditionality. *Academy of Management*

Journal, *50*(3), 715–729.

Fedor, D. B., Buckley, M. R., & Eder, R. W. (1990). Measuring subordinate perceptions of

supervisor feedback intentions: Some unsettling results. *Educational and

Psychological Measurement*, *50*(1), 73−89.

Fedor, D. B., Davis, W. D., Maslyn, J. M., & Mathieson, K. (2001). Performance

improvement efforts in response to negative feedback: The roles of source power and

recipient self-esteem. *Journal of Management*, *27*(1), 79−97.

Fedor, D. B., Eder, R. W., & Buckley, M. R. (1989). The contributory effects of supervisor

intentions on subordinate feedback responses. *Organizational Behavior and Human

Decision Processes*, *44*(3), 396−414.

Feitosa, J., Joseph, D. L., & Newman, D. A. (2015). Crowdsourcing and personality

measurement equivalence: A warning about countries whose primary language is not

English. *Personality and Individual Differences*, *75*, 47−52.

Ferris, G. R., Bhawuk, D. P. S., Fedor, D. F., & Judge, T. A. (1995). Organizational politics

and citizenship: Attributions of intentionality and construct definition. In M. J.

Martinko (Ed.), *Advances in attribution theory: An organizational perspective* (pp.

231−252). Delray Beach, FL: St. Lucie Press.

Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to

theory and research*. Reading, MA: Addison-Wesley.

Fletcher, C., & Kerslake, C. (1992). The impact of assessment centers and their outcomes on

participants' self-assessments. *Human Relations*, *45*(3), 281−289.

Fodor, E. M., & Carver, R. A. (2000). Achievement and power motives, performance

feedback, and creativity. *Journal of Research in Personality*, *34*(4), 380−396.

Forgas, J. P., & George, J. M. (2001). Affective influences on judgments and behavior in

organizations: An information processing perspective. *Organizational Behavior and

Human Decision Processes*, *86*(1), 3−34.

Fox, S., Spector, P. E., & Miles, D. (2001). Counterproductive work behavior (CWB) in response to job stressors and organizational justice: Some mediator and moderator tests for autonomy and emotions. *Journal of Vocational Behavior*, *59*(3), 291–309.

Frederikson, L. G., & Dewe, P. J. (1996). A longitudinal study of appraisal and coping using repeated measures of stressor, importance, frustration and coping response. *Stress Medicine*, *12*(2), 81–91.

Fredrickson, B. L. (1998). What good are positive emotions? *Review of General Psychology, 2*(3), 300–319.

Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist, 56*(3), 218–226.

Fritz, C., & Sonnentag, S. (2006). Recovery, well-being, and performance-related outcomes: The role of workload and vacation experiences. *Journal of Applied Psychology*, *91*(4), 936–945.

Fulmer, C. A., & Ostroff, C. (2017). Trust in direct leaders and top leaders: A trickle-up model. *Journal of Applied Psychology*, *102*(4), 648−657.

Furst, S. A., & Cable, D. M. (2008). Employee resistance to organizational change: Managerial influence tactics and leader-member exchange. *Journal of Applied Psychology*, *93*(2), 453–462.

Gabriel, A. S., Daniels, M. A., Diefendorff, J. M., & Greguras, G. J. (2015). Emotional labor actors: A latent profile analysis of emotional labor strategies. *Journal of Applied Psychology*, *100*(3), 863−879.

Gabriel, A. S., Podsakoff, N. P., Beal, D. J., Scott, B. A., Sonnentag, S., Trougakos, J. P., & Butts, M. M. (2019). Experience sampling methods: A discussion of critical trends and considerations for scholarly advancement. *Organizational Research Methods*, *22*(4), 969–1006.

Gaddis, B., Connelly, S., & Mumford, M. D. (2004). Failure feedback as an affective event: Influences of leader affect on subordinate attitudes and performance. *The Leadership Quarterly*, *15*(5), 663−686.

Gardner, D. G., & Pierce, J. L. (2010). The Core Self-Evaluation scale: Further construct validation evidence. *Educational and Psychological Measurement*, *70*(2), 291−304.

Gausel, N., & Leach, C. W. (2011). Concern for self-image and social image in the management of moral failure: Rethinking shame. *European Journal of Social Psychology, 41*(4), 468–478.

Gausel, N., Leach, C. W., Vignoles, V. L., & Brown, R. (2012). Defend or repair? Explaining responses to in-group moral failure by disentangling feelings of shame, rejection, and inferiority. *Journal of Personality and Social Psychology, 102*(5), 941–960.

George, J. M., & Zhou, J. (2001). When openness to experience and conscientiousness are related to creative behavior: An interactional approach. *Journal of Applied Psychology*, *86*(3), 513–524.

Goel, S., Bell, G. G., & Pierce, J. L. (2005). The perils of Pollyanna: Development of the over-trust construct. *Journal of Business Ethics*, *58*(1–3), 203−218.

González-Gómez, H. V., & Richter, A. W. (2015). Turning shame into creativity: The importance of exposure to creative team environments. *Organizational Behavior and Human Decision Processes, 126*, 142–161.

Goodman, J. S., & Blum, T. C. (1996). Assessing the non-random sampling effects of subject attrition in longitudinal research. *Journal of Management*, *22*(4), 627–652.

Gooty, J., Gavin, M., & Ashkanasy, N. M. (2009). Emotions research in OB: The challenges that lie ahead. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, *30*(6), 833–838.

Graen, G. B., & Uhl-Bien, M. (1995). Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective. *The Leadership Quarterly*, *6*(2), 219–247.

Grant, A. M., & Sonnentag, S. (2010). Doing good buffers against feeling bad: Prosocial impact compensates for negative task and self-evaluations. *Organizational Behavior and Human Decision Processes*, *111*(1), 13–22.

Green, T. D., Bailey, R. C., Zinser, O., & Williams, D. E. (1994). Causal attribution and affective response as mediated by task performance and self-acceptance. *Psychological Reports*, *75*, 1555−1562.

Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (Vol. 2, pp. 105–117). Thousand Oaks, Calif: Sage Publications.

Guo, Y., Zhang, Y., Liao, J., Guo, X., Liu, J., Xue, X., … & Zhang, Y. (2017). Negative feedback and employee job performance: Moderating role of the Big Five. *Social Behavior and Personality: An International Journal*, *45*(10), 1735−1744.

Haidt, J. (2003). The moral emotions. In R. J. Davidson, K. R. Scherer, & H. H. Goldsmith (Eds.), *Handbook of affective sciences* (pp. 852–870). Oxford, UK: Oxford University Press.

Halbesleben, J. R., Neveu, J. P., Paustian-Underdahl, S. C., & Westman, M. (2014). Getting to the 'COR': Understanding the role of resources in conservation of resources theory. *Journal of Management*, *40*(5), 1334–1364.

Harris, R. B., Harris, K. J., & Harvey, P. (2008). An examination of the impact of supervisor on the relationship between job strains and turnover intention for computer workers. *Journal of Applied Social Psychology*, *38*(8), 2108–2131.

Harvey, P., & Harris, K. J. (2010). Frustration-based outcomes of entitlement and the influence of supervisor communication. *Human Relations*, *63*(11), 1639–1660.

Harvey, P., Madison, K., Martinko, M., Crook, T. R., & Crook, T. A. (2014). Attribution theory in the organizational sciences: The road traveled and the path ahead *Academy of Management Perspectives*, *28*(2), 128−146.

Hayes, A. F. (2012). *PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling*. Retrieved from http://www.afhayes.com/

He, Y., Yao, X., Wang, S., & Caughron, J. (2016). Linking failure feedback to individual creativity: The moderation role of goal orientation. *Creativity Research Journal*, *28*(1), 52−59.

Heider, F. (1958). *The psychology of interpersonal relations*. New York: Wiley.

Hempel, P. S. (2008). Chinese reactions to performance feedback: Non-task attributions of feedback intentions. *Asia Pacific Journal of Human Resources*, *46*(2), 196−219.

Hetty van Emmerik, I. J., Bakker, A. B., & Euwema, M. C. (2008). What happens after the developmental assessment center? Employees' reactions to unfavorable performance feedback. *Journal of Management Development*, *27*(5), 513−527.

Hewett, R., Shantz, A., & Mundy, J. (2019). Information, beliefs, and motivation: The antecedents to human resource attributions. *Journal of Organizational Behavior*, *40*(5), 570−586.

Hewett, R., Shantz, A., Mundy, J., & Alfes, K. (2018). Attribution theories in Human Resource Management research: A review and research agenda. *The International Journal of Human Resource Management*, *29*(1), 87−126.

Hillman, L. W., Schwandt, D. R., & Bartz, D. E. (1990). Enhancing staff members'
performance through feedback and coaching. *Journal of Management
Development*, *9*(3), 20−27.

Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing
stress. *American Psychologist*, *44*(3), 513–524.

Hoever, I. J., Zhou, J., & van Knippenberg, D. (2018). Different strokes for different teams:
The contingent effects of positive and negative feedback on the creativity of
informationally homogeneous and diverse teams. *Academy of Management
Journal*, *61*(6), 2159−2181.

Hofmann, D. A., Griffin, M. A., & Gavin, M. B. (2000). The application of hierarchical
linear modeling to organizational research. In K. J. Klein & S. W. J. Kozlowski (Eds.),
Multilevel theory, research, and methods in organizations (pp. 467–511). San Francisco:
Jossey-Bass.

Hu, S., Creed, P. A., & Hood, M. (2019). Does socioeconomic status shape young people's
goal revision processes in the face of negative career feedback? *Journal of Vocational
Behavior*, *110*, 89−101.

Hu, S., Hood, M., & Creed, P. A. (2018). Career goal importance as a moderator in the
relationship between career feedback and career-related stress. *Journal of Career
Development*, *45*(1), 3–18.

Hu, S., Hood, M., & Creed, P. A. (2018). Negative career feedback and career outcomes: The
mediating roles of self-regulatory processes. *Journal of Vocational Behavior*, *106*，
180−191.

Hu, X., Chen, Y., & Tian, B. (2016). Feeling better about self after receiving negative
feedback: When the sense that ability can be improved is activated. *The Journal of
Psychology*, *150*(1), 72−87.

Huang, X., Wright, R. P., Chiu, W. C., & Wang, C. (2008). Relational schemas as sources of

evaluation and misevaluation of leader-member exchanges: Some initial

evidence. *The Leadership Quarterly*, *19*(3), 266−282.

Humphrey, R. H., Burch, G. F., & Adams, L. L. (2016). The benefits of merging leadership

research and emotions research. *Frontiers in Psychology*, *7*, 1022.

Ilgen, D. R., & Davis, C. (2000). Bearing bad news: Reactions to negative performance

feedback. *Applied Psychology*, *49*(3), 550−565.

Ilgen, D. R., Fisher, C. D., & Taylor, M. S. (1979). Consequences of individual feedback on

behavior in organizations. *Journal of Applied Psychology*, *64*(4), 349−371.

Ilgen, D. R., Hollenbeck, J. R., Johnson, M., & Jundt, D. (2005). Teams in organizations:

From input-process-output models to IMOI models. *Annual Review of*

Psychology, *56*, 517−543.

Ilies, R., & Judge, T. A. (2005). Goal regulation across time: The effects of feedback and

affect. *Journal of Applied Psychology*, *90*(3), 453−467.

Ilies, R., De Pater, I. E., & Judge, T. (2007). Differential affective reactions to negative and

positive feedback, and the role of self-esteem. *Journal of Managerial*

Psychology, *22*(6), 590−609.

Ilies, R., Judge, T. A., & Wagner, D. T. (2010). The influence of cognitive and affective

reactions to feedback on subsequent goals. *European Psychologist, 15*(2), 121−131.

Johnson, G., & Connelly, S. (2014). Negative emotions in informal feedback: The benefits of

disappointment and drawbacks of anger. *Human Relations*, *67*(10), 1265–1290.

Judge, T. A, & Kammeyer-Mueller, J. D. (2011). Implications of core self-evaluations for a

changing organizational context. *Human Resource Management Review*, *21*(4),

331−341.

Judge, T. A., Erez, A., & Bono, J. E. (1998). The power of being positive: The relation

    between positive self-concept and job performance. *Human Performance*, *11*(2–3),

    167−187.

Judge, T. A., Erez, A., Bono, J. E., & Thoresen, C. J. (2003). The Core Self-Evaluation Scale:

    Development of a measure. *Personnel Psychology*, *56*(2), 303−331.

Judge, T. A., Locke, E. A., & Durham, C. C. (1997). The dispositional causes of job

    satisfaction: A core evaluations approach. *Research in Organizational Behavior*, *19*,

    151−188.

Kabat-Farr, D., Cortina, L. M., & Marchiondo, L. A. (2018). The emotional aftermath of

    incivility: Anger, guilt, and the role of organizational commitment. *International*

    Journal of Stress Management, 25(2), 109–128.

Kacmar, K. M., Collins, B. J., Harris, K. J., & Judge, T. A. (2009). Core self-evaluations and

    job performance: The role of the perceived work environment. *Journal of Applied*

    Psychology, *94*(6), 1572−1580.

Kammeyer-Mueller, J. D., Judge, T. A., & Scott, B. A. (2009). The role of core self-

    evaluations in the coping process. *Journal of Applied Psychology*, *94*(1), 177−195.

Karasek, R. A. (1979). Job demands, job decision latitude, and mental strain: Implications for

    job redesign. *Administrative Science Quarterly*, *24*, 285−308.

Kelley, H. H. (1967). Attribution theory in social psychology. In D. Levine (Ed.), *Nebraska*

    symposium on motivation (Vol. 15) (pp. 192−238). Lincoln, NE: University of

    Nebraska Press.

Kelley, H. H., & Michela, J. L. (1980). Attribution theory and research. *Annual Review of*

    Psychology, *31*(1), 457−501.

Keltner, D. (1996). Evidence for the distinctness of embarrassment, shame, and guilt: A study of recalled antecedents and facial expressions of emotion. *Cognition & Emotion*, *10*(2), 155–172.

Kernis, M. H., & Johnson, E. K. (1990). Current and typical self-appraisals: Differential responsiveness to evaluative feedback and implications for emotions. *Journal of Research in Personality*, *24*(2), 241–257.

Kim, S., Thibodeau, R., & Jorgensen, R. S. (2011). Shame, guilt, and depressive symptoms: A meta-analytic review. *Psychological Bulletin, 137*(1), 68–96.

Kim, Y. J., & Kim, J. (in press). Is negative feedback good or bad for creativity? The role of the direction of feedback flow. *Academy of Management Journal*.

Kirkman, B. L., Chen, G., Farh, J. L., Chen, Z. X., & Lowe, K. B. (2009). Individual power distance orientation and follower reactions to transformational leaders: A cross-level, cross-cultural examination. *Academy of Management Journal*, *52*(4), 744–764.

Kluger, A. N., & DeNisi, A. (1996). The effects of feedback interventions on performance: A historical review, a meta-analysis, and a preliminary feedback intervention theory. *Psychological Bulletin*, *119*(2), 254−284.

Kluger, A. N., Lewinsohn, S., & Aiello, J. R. (1994). The influence of feedback on mood: Linear effects on pleasantness and curvilinear effects on arousal. *Organizational Behavior and Human Decision Processes*, *60*(2), 276−299.

Koopman, J., Lanaj, K., & Scott, B. A. (2016). Integrating the bright and dark sides of OCB: A daily investigation of the benefits and costs of helping others. *Academy of Management Journal*, *59*(2), 414–435.

Kunda, Z. (1999). *Social cognition: Making sense of people*. Cambridge, MA: MIT Press.

Kuvaas, B., Buch, R., & Dysvik, A. (2017). Constructive supervisor feedback is not sufficient: Immediacy and frequency is essential. *Human Resource Management*, *56*(3), 519–531.

Lam, L. W., Peng, K. Z., Wong, C. S., & Lau, D. C. (2017). Is more feedback seeking always better? Leader-member exchange moderates the relationship between feedback-seeking behavior and performance. *Journal of Management*, *43*(7), 2195–2217.

Larson, J. R., Jr (1984). The performance feedback process: A preliminary model. *Organizational Behavior and Human Performance*, *33*(1), 42−76.

Larson, J. R., Jr (1986). Supervisors' performance feedback to subordinates: The impact of subordinate performance valence and outcome dependence. *Organizational Behavior and Human Decision Processes*, *37*(3), 391−408.

Lazarus, R. S. (1991). *Emotion and adaptation*. New York, NY: Oxford University Press.

Lazarus, R. S. (2006). *Stress and emotion: A new synthesis*. New York, NY: Springer.

Lazarus, R. S., & Cohen-Charash, Y. (2001). Discrete emotions in organizational life. In R. Payne & C. L. Cooper (Eds.), *Emotions in organizations* (pp. 45–81). Chichester: Wiley.

Leach, C. W., & Cidam, A. (2015). When is shame linked to constructive approach orientation? A meta-analysis. *Journal of Personality and Social Psychology, 109*(6), 983–1002.

Lee, J., & Peccei, R. (2007). Perceived organizational support and affective commitment: The mediating role of organization-based self-esteem in the context of job insecurity. *Journal of Organizational Behavior*, *28*(6), 661–685.

Lee, K., & Allen, N. J. (2002). Organizational citizenship behavior and workplace deviance: The role of affect and cognitions. *Journal of Applied Psychology*, *87*(1), 131–142.

Leung, K., Su, S., & Morris, M. W. (2001). When is criticism not constructive? The roles of fairness perceptions and dispositional attributions in employee acceptance of critical supervisory feedback. *Human Relations*, *54*(9), 1155−1187.

Li, C., Wu, K., Johnson, D. E., & Avey, J. (2017). Going against the grain works: An attributional perspective of perceived ethical leadership. *Journal of Business Ethics*, *141*(1), 87−102.

Li, G., Liu, H., Shang, Y., & Xi, Y. (2014). Leader feedback and knowledge sharing: A regulatory focus theory perspective. *Journal of Management & Organization*, *20*(6), 749−763.

Lian, H., Ferris, D. L., & Brown, D. J. (2012). Does taking the good with the bad make things worse? How abusive supervision and leader-member exchange interact to impact need satisfaction and organizational deviance. *Organizational Behavior and Human Decision Processes, 117*(1), 41–52.

Lickel, B., Kushlev, K., Savalei, V., Matta, S., & Schmader, T. (2014). Shame and the motivation to change the self. *Emotion, 14*(6), 1049–1061.

Liden, R. C., & Mitchell, T. R. (1985). Reactions to feedback: The role of attributions. *Academy of Management Journal*, *28*(2), 291−308.

Liden, R. C., Sparrowe, R. T., & Wayne, S. J. (1997). Leader-member exchange theory: The past and potential for the future. *Research in Personnel and Human Resources Management*, *15*, 47–120.

Liden, R. C., Wayne, S. J., & Stilwell, D. (1993). A longitudinal study on the early development of leader-member exchanges. *Journal of Applied Psychology*, *78*(4), 662–674.

Lindebaum, D., & Jordan, P. J. (2012). Positive emotions, negative emotions, or utility of discrete emotions? *Journal of Organizational Behavior*, *33*(7), 1027–1030.

Litman, L., Robinson, J., & Abberbock, T. (2017). TurkPrime.com: A versatile

   crowdsourcing data acquisition platform for the behavioral sciences. *Behavior*

   Research Methods, *49*(2), 433−442.

Liu, D., Liao, H., & Loi, R. (2012). The dark side of leadership: A three-level investigation of

   the cascading effect of abusive supervision on employee creativity. *Academy of*

   Management Journal, *55*(5), 1187−1212.

Liu, W., & Xiang, S. (2018). The positive impact of guilt: How and when feedback affect

   employee learning in the workplace. *Leadership & Organization Development*

   Journal, *39*(7), 883−898.

Liu, Y., Wang, M., Chang, C. H., Shi, J., Zhou, L., & Shao, R. (2015). Work-family conflict,

   emotional exhaustion, and displaced aggression toward others: The moderating roles of

   workplace interpersonal conflict and perceived managerial family support. *Journal of*

   Applied Psychology, *100*(3), 793–808.

Loi, R., Ngo, H. Y., Zhang, L., & Lau, V. P. (2011). The interaction between leader-member

   exchange and perceived job security in predicting employee altruism and work

   performance. *Journal of Occupational and Organizational Psychology*, *84*(4), 669–685.

London, M. (2003). *Job feedback: Giving, seeking and using feedback for performance*

   improvement (2nd ed.). Mahwah, NJ: Lawrence Erlbaum.

London, M., & Smither, J. W. (2002). Feedback orientation, feedback culture, and the

   longitudinal performance management process. *Human Resource Management*

   Review, *12*(1), 81−100.

Lonsdale, D. J. (2016). The effects of leader-member exchange and the feedback

   environment on organizational citizenship and withdrawal. *The Psychologist-Manager*

   Journal, *19*(1), 41–59.

Lyubomirsky, S., & Nolen-Hoeksema, S. (1995). Effects of self-focused rumination on negative thinking and interpersonal problem solving. *Journal of Personality and Social Psychology*, *69*(1), 176–190.

MacKenzie, S. B., Podsakoff, P. M., & Fetter, R. (1991). Organizational citizenship behavior and objective productivity as determinants of managerial evaluations of salespersons' performance. *Organizational Behavior and Human Decision Processes*, *50*(1), 123–150.

Major, D. A, Turner, J. E., & Fletcher, T. D. (2006). Linking proactive personality and the Big Five to motivation to learn and development activity. *Journal of Applied Psychology*, *91*(4), 927−935.

Manuti, A., Pastore, S., Scardigno, A. F., Giancaspro, M. L., & Morciano, D. (2015). Formal and informal learning in the workplace: A research review. *International Journal of Training and Development*, *19*(1), 1−17.

Martin, L., & Tesser, A. 2006. Extending the goal progress theory of rumination: Goal reevaluation and growth. In L. J. Sanna & E. C. Chang (Eds.), *Judgments over time: The interplay of thoughts, feelings, and behaviors* (pp. 145–160). New York: Oxford University Press.

Martinko, M. J., & Gardner, W. L. (1987). The leader/member attribution process. *Academy of Management Review*, *12*(2), 235−249.

Martinko, M. J., Douglas, S. C., & Harvey, P. (2006). Attribution theory in industrial and organizational psychology: A review. In G. P. Hodgkinson & K. J. Ford (Eds.), *International review of industrial and organizational psychology* (pp. 127−187). Chicester, England: Wiley.

Maslyn, J. M., & Uhl-Bien, M. (2001). Leader-member exchange and its dimensions: Effects of self-effort and other's effort on relationship quality. *Journal of Applied Psychology*, *86*(4), 697−708.

Mason, W., & Suri, S. (2012). Conducting behavioral research on Amazon's Mechanical Turk. *Behavior Research Methods*, *44*(1), 1−23.

McCarthy, J. M., Trougakos, J. P., & Cheng, B. H. (2016). Are anxious workers less productive workers? It depends on the quality of social exchange. *Journal of Applied Psychology*, *101*(2), 279–291.

McNatt, D. B., & Judge, T. A. (2008). Self-efficacy intervention, job attitudes, and turnover: A field experiment with employees in role transition. *Human Relations*, *61*(6), 783−810.

Meade, A. W., & Craig, S. B. (2012). Identifying careless responses in survey data. *Psychological Methods*, *17*(3), 437−455.

Merriman, K. K. (2017). Extrinsic work values and feedback: Contrary effects for performance and well-being. *Human Relations*, *70*(3), 339–361.

Miller, D. L., & Karakowsky, L. (2005). Gender influences as an impediment to knowledge sharing: When men and women fail to seek peer feedback. *The Journal of Psychology*, *139*(2), 101–118.

Mischel, W., & Shoda, Y. (1995). A cognitive-affective system theory of personality: Reconceptualizing situations, dispositions, dynamics, and invariance in personality structure. *Psychological Review*, *102*(2), 246−268.

Mischel, W., & Shoda, Y. (1998). Reconciling processing dynamics and personality dispositions. *Annual Review of Psychology*, *49*(1), 229−258.

Moss, S. E., & Sanchez, J. I. (2004). Are your employees avoiding you? Managerial strategies for closing the feedback gap. *Academy of Management Perspectives*, *18*(1), 32–44.

Moss, S. E., Sanchez, J. I., Brumbaugh, A. M., & Borkowski, N. (2009). The mediating role of feedback avoidance behavior in the LMX–performance relationship. *Group & Organization Management*, *34*(6), 645–664.

Moss, S. E., Song, M., Hannah, S. T., Wang, Z., & Sumanth, J. J. (2019). The duty to improve oneself: How duty orientation mediates the relationship between ethical leadership and followers' feedback-seeking and feedback-avoiding behavior. *Journal of Business Ethics*. doi: 10.1007/s10551-018-4095-8

Moss, S. E., Valenzi, E. R., & Taggart, W. (2003). Are you hiding from your boss? The development of a taxonomy and instrument to assess the feedback management behaviors of good and bad performers. *Journal of Management*, *29*(4), 487–510.

Motowidlo, S. J., & Van Scotter, J. R. (1994). Evidence that task performance should be distinguished from contextual performance. *Journal of Applied Psychology*, *79*(4), 475–480.

Motro, D., Comer, D. R., & Lenaghan, J. A. (2020). Examining the effects of negative performance feedback: The roles of sadness, feedback self-efficacy, and grit. *Journal of Business and Psychology*. doi: 10.1007/s10869-020-09689-1.

Mulder, R., & Ellinger, A. D. (2013). Perceptions of quality of feedback in organizations: Characteristics, determinants, outcomes of feedback, and possibilities for improvement: Introduction to a special issue. *European Journal of Training and Development*, *37*(1), 4−23.

Murphy, S. A., & Kiffin-Petersen, S. (2017). The exposed self: A multilevel model of shame and ethical behavior. *Journal of Business Ethics*, *141*(4), 657–675.

Muthén, L. K., & Muthén, B. O. (1998-2015). *Mplus user's guide*. Los Angeles, CA: Muthén and Muthén.

Nahum-Shani, I., Henderson, M. M., Lim, S., & Vinokur, A. D. (2014). Supervisor support: Does supervisor support buffer or exacerbate the adverse effects of supervisor undermining? *Journal of Applied Psychology*, *99*(3), 484–503.

Niemann, J., Wisse, B., Rus, D., Van Yperen, N. W., & Sassenberg, K. (2014). Anger and attitudinal reactions to negative feedback: The effects of emotional instability and power. *Motivation and Emotion*, *38*(5), 687−699.

Nikula, R. E. (1999). Organisational learning within health care organisations. *International Journal of Medical Informatics*, *56*(1–3), 61−66.

Nishii, L. H., Lepak, D. P., & Schneider, B. (2008). Employee attributions of the "why" of HR practices: Their effects on employee attitudes and behaviors, and customer satisfaction. *Personnel Psychology*, *61*(3), 503−545.

O'Malley, A. L., & Gregory, J. B. (2011). Don't be such a downer: Using positive psychology to enhance the value of negative feedback. *The Psychologist-Manager Journal*, 14(4), 247−264.

Ohly, S., Sonnentag, S., Niessen, C., & Zapf, D. (2010). Diary studies in organizational research. *Journal of Personnel Psychology*, *9*(2), 79–93.

Paauwe, J. (2009). HRM and performance: Achievements, methodological issues and prospects. *Journal of Management Studies*, *46*(1), 129–142.

Pampino, R. N., Jr., MacDonald, J. E., Mullin, J. E., & Wilder, D. A. (2004). Weekly feedback vs. daily feedback: An application in retail. *Journal of Organizational Behavior Management*, *23*(2–3), 21–43.

Pan, S. Y., & Lin, K. J. (2015). Behavioral mechanism and boundary conditions of transformational process. *Journal of Managerial Psychology*, *30*(8), 970–985.

Pan, S. Y., & Lin, K. J. (2018). Who suffers when supervisors are unhappy? The roles of leader–member exchange and abusive supervision. *Journal of Business Ethics*, *151*(3), 799–811.

Peng, A., Schaubroeck, J., Chong, S., & Li, Y. (2019). Discrete emotions linking abusive supervision to employee intention and behavior. *Personnel Psychology*.

Peng, J. C., & Lin, J. (2016). Linking supervisor feedback environment to contextual performances: The mediating effect of leader-member exchange. *Leadership & Organization Development Journal*, *37*(6), 802–820.

Peters, L. H., O'Connor, E. J., & Rudolf, C. J. (1980). The behavioral and affective consequences of performance-relevant situational variables. *Organizational Behavior and Human Performance*, *25*(1), 79–96.

Pierce, J. L., & Gardner, D. G. (2004). Self-esteem within the work and organizational context: A review of the organization-based self-esteem literature. *Journal of Management*, *30*(5), 591–622.

Pierce, J. L., Gardner, D. G., Cummings, L. L., & Dunham, R. B. (1989). Organization-based self-esteem: Construct definition, measurement, and validation. *Academy of Management Journal*, *32*(3), 622–648.

Podsakoff, P. M., & Farh, J. L. (1989). Effects of feedback sign and credibility on goal setting and task performance. *Organizational Behavior and Human Decision Processes*, 44(1), 45−67.

Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual Review of Psychology, 63*, 539–569.

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, *88*(5), 879–903.

Porter, C. O., Outlaw, R., Gale, J. P., & Cho, T. S. (2019). The use of online panel data in management research: A review and recommendations. *Journal of Management*, *45*(1), 319−344.

Poulson, C. F. (2000). Shame and work. In N. M. Ashkanasy, W. Zerbe & C. E. J. Härtel (Eds.), *Emotions in the workplace: Research, theory, and practice* (pp. 490–541). Westport, CT: Quorum Books.

Preacher, K. J., Curran, P. J., & Bauer, D. J. (2006). Computational tools for probing interactions in multiple linear regression, multilevel modeling, and latent curve analysis. *Journal of Educational and Behavioral Statistics*, *31*(4), 437–448.

Preacher, K. J., Ducker, D. D., & Hayes, A. F. (2007). Addressing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate Behavioral Research*, *42*(1), 185−227.

Prem, R., Kubicek, B., Diestel, S., & Korunka, C. (2016). Regulatory job stressors and their within-person relationships with ego depletion: The roles of state anxiety, self-control effort, and job autonomy. *Journal of Vocational Behavior, 92*, 22–32.

Pulakos, E. D., & O'Leary, R. S. (2011). Why is performance management broken? *Industrial and Organizational Psychology* , *4*(2), 146−164.

Qin, X., Huang, M., Johnson, R. E., Hu, Q., & Ju, D. (2018). The short-lived benefits of abusive supervisory behavior for actors: An investigation of recovery and work engagement. *Academy of Management Journal*, *61*(5), 1951–1975.

Raftery, J. N., & Bizer, G. Y. (2009). Negative feedback and performance: The moderating effect of emotion regulation. *Personality and Individual Differences*, *47*(5), 481−486.

Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical linear models* (2nd ed.). Thousand Oaks, CA: Sage.

Regan, D. T. (1978). Attributional aspects of interpersonal attraction. In J. H. Harvey, W. Ickes & R. F. Kidd (Eds.), *New directions in attribution research*, *Vol. 2* (pp. 207−233). Hillsdale, NJ: Lawrence Erlbaum.

Reijntjes, A., Thomaes, S., Kamphuis, J. H., Bushman, B. J., De Castro, B. O., & Telch, M. J. (2011). Explaining the paradoxical rejection-aggression link: The mediating effects of hostile intent attributions, anger, and decreases in state self-esteem on peer rejection-induced aggression in youth. *Personality and Social Psychology Bulletin*, *37*(7), 955−963.

Reis, H. T. (2012). Why researchers should think "real-world": A conceptual rationale. In M. R. Mehl & T. S. Conner (Eds.), *Handbook of research methods for studying daily life* (pp. 3–21). New York: Guilford Press.

Restubog, S. L. D., Bordia, P., Tang, R. L., & Krebs, S. A. (2010). Investigating the moderating effects of leader-member exchange in the psychological contract breach–employee performance relationship: A test of two competing perspectives. *British Journal of Management*, *21*(2), 422−437.

Rode, J. C., Judge, T. A., & Sun, J. M. (2012). Incremental validity of core self-evaluations in the presence of other self-concept traits: An investigation of applied psychology criteria in the United States and China. *Journal of Leadership and Organizational Studies*, *19*(3), 326−340.

Ross, L. (1977). The intuitive psychologist and his shortcomings: Distortions in the attribution process. *Advances in Experimental Social Psychology*, *10*, 173−220.

Russell, J. A. (1980). A circumplex model of affect. *Journal of Personality and Social Psychology*, *39*(6), 1161−1178.

Schaubroeck, J. M., & Shao, P. (2012). The role of attribution in how followers respond to the emotional expression of male and female leaders. *The Leadership Quarterly*, *23*(1), 27−42.

Schmitt, A., Den Hartog, D. N., & Belschak, F. D. (2015). Is outcome responsibility at work emotionally exhausting? Investigating employee proactivity as a moderator. *Journal of Occupational Health Psychology*, *20*(4), 491–500.

Schreurs, B. H., van Emmerik, IJ. H., Günter, H., & Germeys, F. (2012). A weekly diary study on the buffering role of social support in the relationship between job insecurity and employee performance. *Human Resource Management*, *51*(2), 259–279.

Schroeder, J., & Fishbach, A. (2015). How to motivate yourself and others? Intended and unintended consequences. *Research in Organizational Behavior*, *35*, 123−141.

Scott, K. A., & Zweig, D. (2016). Understanding and mitigating cynicism in the workplace. *Journal of Managerial Psychology*, *31*(2), 552−569.

Seo, M. G., Barrett, L. F., & Bartunek, J. M. (2004). The role of affective experience in work motivation. *Academy of Management Review*, *29*(3), 423−439.

Shantz, A., & Booth, J. E. (2014). Service employees and self-verification: The roles of occupational stigma consciousness and core self-evaluations. *Human Relations*, *67*(12), 1439−1465.

Shantz, A., Arevshatian, L., Alfes, K., & Bailey, C. (2016). The effect of HRM attributions on emotional exhaustion and the mediating roles of job involvement and work overload. *Human Resource Management Journal*, *26*(2), 172–191.

Shao, B., Wang, L., & Tse, H. M. (2018). Motivational or dispositional? The type of inference shapes the effectiveness of leader anger expressions. *The Leadership Quarterly*, *29*(6), 709−723.

Shockley, K. M., Ispas, D., Rossi, M. E., & Levine, E. L. (2012). A meta-analytic investigation of the relationship between state affect, discrete emotions, and job performance. *Human Performance*, *25*(5), 377–411.

Shu. R. & Liang, J. (2015). Unpacking the motivational process of ethical leadership: A self-concept perspective. *Chinese Journal of Management*, *12*(7), 1012–1020.

Silver, W. S., Mitchell, T. R., & Gist, M. E. 1995. Responses to successful and unsuccessful performance: The moderating effect of self-efficacy on the relationship between performance and attributions. *Organizational Behavior and Human Decision Processes*, *62*(3), 286−299.

Smither, J. W., London, M., & Reilly, R. R. (2005). Does performance improve following multisource feedback? A theoretical model, meta-analysis, and review of empirical findings. *Personnel Psychology*, *58*(1), 33−66.

Song, M., Moss, S. E., & Gok, K. (2013). Antecedents and consequences of feedback avoiding behavior. *Academy of Management Proceedings*, *2013*(1), 11096.

Sparr, J. L., & Sonnentag, S. (2008). Fairness perceptions of supervisor feedback, LMX, and employee well-being at work. *European Journal of Work and Organizational Psychology*, *17*(2), 198–225.

Sparrowe, R. T., Soetjipto, B. W., & Kraimer, M. L. (2006). Do leaders' influence tactics relate to members' helping behavior? It depends on the quality of the relationship. *Academy of Management Journal*, *49*(6), 1194–1208.

Spector, P. E. (1997). The role of frustration in antisocial behavior at work. In R. A. Jiacalone, & J. Greenberg (Eds.), *Anti-social behavior in organizations* (pp. 1–17). Thousand Oaks, CA: Sage.

Steelman, L. A., & Rutkowski, K. A. (2004). Moderators of employee reactions to negative feedback. *Journal of Managerial Psychology*, *19*(1), 6−18.

Steelman, L. A., Levy, P. E., & Snell, A. F. (2004). The Feedback Environment Scale: Construct definition, measurement, and validation. *Educational and Psychological Measurement, 64*(1), 165−184.

Sue-Chan, C., Chen, Z., & Lam, W. (2011). LMX, coaching attributions, and employee performance. *Group & Organization Management*, *36*(4), 466−498.

Swann, W. B., Jr. (1987). Identity negotiation. *Journal of Personality and Social Psychology*,*53*(6), 1038−1051.

Tangney, J. P. (1995). Shame and guilt in interpersonal relationships. In J. P. Tangney & K. W. Fischer (Eds.), *Self-conscious emotions: The psychology of shame, guilt, embarrassment and pride* (pp. 114–142). New York: Guilford Press.

Tangney, J. P., Miller, R. S., Flicker, L., & Barlow, D. H. (1996). Are shame, guilt, and embarrassment distinct emotions? *Journal of Personality and Social Psychology, 70*(6), 1256–1269.

Taris, T. W., Kompier, M. A., De Lange, A. H., Schaufeli, W. B., & Schreurs, P. J. (2003). Learning new behaviour patterns: A longitudinal test of Karasek's active learning hypothesis among Dutch teachers. *Work & Stress*, *17*(1), 1−20.

Tata, J. (2002). The influence of managerial accounts on employees' reactions to negative feedback. *Group & Organization Management*, *27*(4), 480−503.

Tepper, B. J., Moss, S. E., Lockhart, D. E., & Carr, J. C. (2007). Abusive supervision, upward maintenance communication, and subordinates' psychological distress. *Academy of Management Journal*, *50*(5), 1169–1180.

Tesser, A., & Rosen, S. (1975). The reluctance to transmit bad news. In L. Berkowitz (Ed.), *Advances in experimental psychology* (Vol. 8, pp. 193−232). New York: Academic Press.

Thomas, K. M., & Mathieu, J. E. (1994). Role of causal attributions in dynamic self-regulation and goal processes. *Journal of Applied Psychology*, *79*(6), 812−818.

Thomas, K. W., & Pondy, L. R. (1977). Toward and "intent" model of conflict management among principal parties. *Human Relations*,*30*(12), 1089−1102.

Thompson, E. R. (2007). Development and validation of an internationally reliable short-form of the Positive and Negative Affect Schedule (PANAS). *Journal of Cross-cultural Psychology*, *38*(2), 227–242.

Tolli, A. P., & Schmidt, A. M. (2008). The role of feedback, causal attributions, and self-efficacy in goal revision. *Journal of Applied Psychology*, *93*(3), 692–701.

Tracy, J. L., Robins, R. W., & Tangney, J. P. (2007). The self-conscious emotions: Theory and research. New York: Guilford Press.

Tse, H. M., Troth, A. C., Ashkanasy, N. M., & Collins, A. L. (2018). Affect and leader-member exchange in the new millennium: A state-of-art review and guiding framework. *The Leadership Quarterly*, *29*(1), 135–149.

Van De Voorde, K., & Beijer, S. (2015). The role of employee HR attributions in the relationship between high-performance work systems and employee outcomes. *Human Resource Management Journal*, *25*(1), 62−78.

Van Dijk, D., & Kluger, A. N. (2004). Feedback sign effect on motivation: Is it moderated by regulatory focus? *Applied Psychology*, *53*(1), 113−135.

Van Dijk, D., & Kluger, A. N. (2011). Task type as a moderator of positive/negative feedback effects on motivation and performance: A regulatory focus perspective. *Journal of Organizational Behavior*, *32*(8), 1084−1105.

Van Kleef, G. A., Homan, A. C., Beersma, B., Van Knippenberg, D., Van Knieppenberg, B., & Damen, F. (2009). Searing sentiment or cold calculation? The effects of leader

emotional displays on team performance depend on follower epistemic motivation. *Academy of Management Journal*, *52*(3), 562–580.

Vancouver, J. B., & Tischner, E. C. (2004). The effect of feedback sign on task performance depends on self-concept discrepancies. *Journal of Applied Psychology*, *89*(6), 1092−1098.

Vande Walle, D. (2003). A goal orientation model of feedback-seeking behavior. *Human Resource Management Review*, *13*(4), 581–604.

Walter, S. L., Seibert, S. E., Goering, D., & O'Boyle, E. H. (2019). A tale of two sample sources: Do results from online panel data and conventional data converge? *Journal of Business and Psychology*, *34*(4), 425−452.

Walther, E., & Trasselli, C. (2003). I like her, because I like myself: Self-evaluation as a source of interpersonal attitudes. *Experimental Psychology*, *50*(4), 239−246.

Wang, M., Burlacu, G., Truxillo, D., James, K., & Yao, X. (2015). Age differences in feedback reactions: The roles of employee feedback orientation on social awareness and utility. *Journal of Applied Psychology*, *100*(4), 1296−1308.

Wang, Z., Xing, L., Xu, H., & Hannah, S. T. (2019). Not all followers socially learn from ethical leaders: The roles of followers' moral identity and leader identification in the ethical leadership process. *Journal of Business Ethics*. doi: 10.1007/s10551-019-04353-y.

Weiner, B. (1986). *An attributional theory of motivation and emotion*. New York: Springer-Verlag.

Weiner, B. (2011). Ultimate and proximal determinants of motivation given an attribution perspective and the metaphors guiding attribution theory. *Group & Organization Management*, *36*(4), 526−532.

Weiss, H. M., & Beal, D. J. (2005). Reflections on affective events theory. In N. M. Ashkanasy, W. J. Zerbe & C. E. J. Härtel (Eds.), *Research on emotion in organizations* (Vol. 1, pp. 1–22). San Diego, CA: Elsevier.

Weiss, H. M., & Cropanzano, R. (1996). Affective events theory: A theoretical discussion of the structure, causes, and consequences of affective experiences at work. In B. M. Staw & L. L. Cummings (Eds.), *Research in organizational behavior* (Vol. 18, pp. 1–74). Greenwich, CT: JAI Press.

Whitaker, B. G., & Levy, P. (2012). Linking feedback quality and goal orientation to feedback seeking and job performance. *Human Performance*, *25*(2), 159–178.

Whitaker, B. G., Dahling, J. J., & Levy, P. (2007). The development of a feedback environment and role clarity model of job performance. *Journal of Management*, *33*(4), 570–591.

White, B. A., & Turner, K. A. (2014). Anger rumination and effortful control: Mediation effects on reactive but not proactive aggression. *Personality and Individual Differences*, *56*, 186–189.

Whitman, M. V., Halbesleben, J. R., & Holmes, O., IV (2014). Abusive supervision and feedback avoidance: The mediating role of emotional exhaustion. *Journal of Organizational Behavior*, *35*(1), 38–53.

Wiesenfeld, B. M., Brockner, J., & Martin, C. (1999). A self-affirmation analysis of survivors' reactions to unfair organizational downsizings. *Journal of Experimental Social Psychology*, *35*(5), 441−460.

Wright, T. A., & Cropanzano, R. (1998). Emotional exhaustion as a predictor of job performance and voluntary turnover. *Journal of Applied Psychology*, *83*(3), 486–493.

Wu, P., & Leung, K. (2000). Negative feedback and responses from subordinates. *Journal of Human Resource Costing and Accounting*, *5*(1), 37−44.

Xanthopoulou, D., Baker, A. B., Heuven, E., Demerouti, E., & Schaufeli, W. B. (2008). Working in the sky: A diary study on work engagement among flight attendants. *Journal of Occupational Health Psychology*, *13*(4), 345–356.

Xu, A. J., Loi, R., & Lam, L. W. (2015). The bad boss takes it all: How abusive supervision and leader–member exchange interact to influence employee silence. *The Leadership Quarterly*, *26*(5), 763−774.

Young, S. F., & A. Steelman, L. A. (2014). The role of feedback in supervisor and workgroup identification. *Personnel Review*, 43(2), 228–245.

Young, S. F., Richard, E. M., Moukarzel, R. G., Steelman, L. A., & Gentry, W. A. (2017). How empathic concern helps leaders in providing negative feedback: A two-study examination. *Journal of Occupational and Organizational Psychology*, *90*(4), 535–558.

Yukl, G. (1998). *Leadership in organizations* (4th ed.). Upper Saddle River, NJ: Prentice-Hall.

Zenger, J. & Folkman, J. (2017, May 2). Why do so many managers avoid giving praise? *Harvard Business Review*. Retrieved from https://hbr.org/2017/05/why-do-so-many-managers-avoid-giving-praise

Zhang, H., Kwan, H. K., Zhang, X., & Wu, L. Z. (2014). High core self-evaluators maintain creativity: A motivational model of abusive supervision. *Journal of Management*, *40*(4), 1151−1174.

Zhang, X., & Bartol, K. M. (2010). Linking empowering leadership and employee creativity: The influence of psychological empowerment, intrinsic motivation, and creative process engagement. *Academy of Management Journal, 53*(1), 107–128.

Zhang, Y., Sun, J. M. J., Lin, C. H. V., & Ren, H. (2020). Linking core self-evaluation to creativity: The roles of knowledge sharing and work meaningfulness. *Journal of Business and Psychology*, *35*, 257−270.

Zhou, J. (1998). Feedback valence, feedback style, task autonomy, and achievement orientation: Interactive effects on creative performance. *Journal of Applied Psychology*, *83*(2), 261−276.

Zhou, Z. E., Yan, Y., Che, X. X., & Meier, L. L. (2015). Effect of workplace incivility on end-of-work negative affect: Examining individual and organizational moderators in a daily diary study. *Journal of Occupational Health Psychology*, *20*(1), 117−130.

Zimmerman, R. D., Swider, B. W., Woo, S. E., & Allen, D. G. (2016). Who withdraws? Psychological individual differences and employee withdrawal behaviors. *Journal of Applied Psychology*, *101*(4), 498−519.

Zingoni, M., & Byron, K. (2017). How beliefs about the self influence perceptions of negative feedback and subsequent effort and learning. *Organizational Behavior and Human Decision Processes*, *139*, 50−62.

Appendix A. Measures for Study 1

A. Supervisor Feedback (Steelman et al., 2004)

Please indicate how often do your supervisor …(1 = never and 5 = always)

1. lets me know that I didn't meet some deadlines

2. tells me that my work performance does not meet organizational standards.

3. lets me know that my job performance falls below what is expected.

4. tells me that I made a mistake at work.

5. praises my performance.

6. (I) receive praise from my supervisor.

7. lets me know that I did a good job at work.

8. (I) receive positive feedback from my supervisor.

B. Feedback Motive Attribution (Hempel, 2008)

Above you have answered the questions of supervisor feedback. To what extent, do you agree that the following may be the reason for or cause of your supervisor's negative feedback towards you? (1 = strongly disagree and 5 = strongly agree)

1. Help company improve productivity

2. Company faces pressure from competitors

3. To pass on information about my performance from other sources (i.e., clients or customers)

4. Due to his/her emotions

5. To demonstrate his/her authority

6. Because he/she dislikes me

C. Core Self-Evaluation (Judge et al., 2003)

Below are several statements about yourself with which you may agree or disagree. Please indicate the extent to which you agree with each statement. (1 = strongly disagree and 5 = strongly agree)

1. I am confident I get the success I deserve in life.

2. Sometimes I feel depressed.

3. When I try, I generally succeed.

4. Sometimes when I fail I feel worthless.

5. I complete tasks successfully.

6. Sometimes, I do not feel in control of my work.

7. Overall, I am satisfied with myself.

8. I am filled with doubts about my competence.

9. I determine what will happen in my life.

10. I do not feel in control of my success in my career.

11. I am capable of coping with most of my problems.

12. There are times when things look pretty bleak and hopeless to me.

D. Engagement in Learning Activities (Bezuijen et al., 2010)

Below are several statements regarding your learning at work. Please indicate your level of agreement with each statement. (1 = strongly disagree and 5 = strongly agree)

1. I spend time following a course or educational program.
2. I am working to extend my knowledge and skills.
3. I perform learning tasks that are not part of my job.
4. I spend time planning and realizing my career.
5. I go to my supervisor to discuss how I can make progress.
6. Within my task responsibilities, I actively look for methods to improve my work.
7. Within my job, I look for activities from which I can learn.
8. I continually learn new skills for my job.

E. Demographics
Please answer these last few questions about you.

Your age?

Your gender? Male (1) Female (2)

How long have you been working with your current supervisor?
____ Years ____ Months

Your education level? High school or less (1) Diploma (2) Undergraduate (3) Master (4) Doctor (5)

Appendix B. Measures for Study 2

Pre-survey

A. Leader-Member Exchange (Graen & Uhl-Bien, 1995)

This questionnaire contains items that ask you to describe your relationship with either your supervisor or one of your subordinates. For each of the items, indicate the degree to which you think the item is true for you.

1. Do you know where you stand with your supervisor and do you usually know how satisfied your supervisor is with what you do? (1= rarely to 6 = very often)
2. How well does your supervisor recognize your potential? (1 = not at all to 6 = fully)
3. How well does your supervisor understand your job problems and needs? (1= not a bit to 6 = a great deal)
4. Regardless of how much formal authority your supervisor has built into his or her position, what are the chances that your supervisor would use his or her power to help you solve problems in your work? (1 = none to 6= very high)
5. Again,regardless of the amount of formal authority your supervisor has, what are the chances that he or she would "bail you out" at his or her expense? (1= none to 6 = very high)
6. I have enough confidence in my supervisor that I would defend and justify his/her decision if he/she were not present to do so. (1 = strongly disagree to 6 = strongly agree)
7. How would you characterize your working relationship with your supervisor? (1= extremely ineffective to 6= extremely effective).

B. Demographics

Your age?

Your gender? Male (1) Female (2)

How long have you been working with your current supervisor?
_____ Years _____ Months

Morning survey

PANAS (Thompson, 2007)

To what extent do you feel right now: (1 = not at all to 6 = very much)
1. Upset
2. Hostile
3. Alert
4. Ashamed
5. Inspired
6. Nervous
7. Determined
8. Attentive
9. Afraid
10. Active

Afternoon survey

A. Supervisor Feedback (Steelman et al., 2004)

Please indicate how often …(1 = never to 6 = very much)
1. Today, my supervisor told me that I didn't meet some deadlines.
2. Today, my supervisor told me that my work performance does not meet organizational standards.
3. Today, my supervisor told me that my job performance falls below what is expected.
4. Today, my supervisor told me that I made a mistake at work.
5. Today, my supervisor praised my performance.
6. Today, I received praise from my supervisor.
7. Today, my supervisor told me that I did a good job at work.
8. Today, I received positive feedback from my supervisor.

B. Shame
To what extent do you feel shame during today's work? (1 = not at all to 6 = very much)

C. Emotional Exhaustion (Koopman et al., 2016)
1. I feel emotionally drained from my work right now.
2. I feel frustrated by my job right now.
3. I feel that I'm working too hard on my job right now.
4. I feel burned out from my work right now.
5. I feel that working with people directly put too much stress on me right now.

D. In-Role and Extra-Role Performance (Schreurs et al., 2012)
Please indicate how well each of the following statements describes your behavior at work today. (1 = strongly disagree to 6 = strongly agree).
1. Today, I performed well in my job by carrying out tasks as expected.
2. Today, I fulfilled all the requirements for my job.
3. Today, I achieved the objectives of my job.
4. Today, I voluntarily did more than was required of me.
5. Today, I helped my colleagues when they had too much work to do.
6. Today, I willingly attended functions not required by the organization.

Appendix C. Measures for Study 3

A. Supervisor Feedback (Steelman et al., 2004)

Please indicate how often do your supervisor …(1 = never and 6 = always)

1. lets me know that I didn't meet some deadlines
2. tells me that my work performance does not meet organizational standards.
3. lets me know that my job performance falls below what is expected.
4. tells me that I made a mistake at work.
5. praises my performance.
6. (I) receive praise from my supervisor.
7. lets me know that I did a good job at work.
8. (I) receive positive feedback from my supervisor.

B. Leader-Member Exchange (Graen & Uhl-Bien, 1995)

This questionnaire contains items that ask you to describe your relationship with either your supervisor or one of your subordinates. For each of the items, indicate the degree to which you think the item is true for you.

1. Do you know where you stand with your supervisor and do you usually know how satisfied your supervisor is with what you do? (1= rarely to 6 = very often)
2. How well does your supervisor recognize your potential? (1 = not at all to 6 = fully)
3. How well does your supervisor understand your job problems and needs? (1= not a bit to 6 = a great deal)
4. Regardless of how much formal authority your supervisor has built into his or her position, what are the chances that your supervisor would use his or her power to help you solve problems in your work? (1 = none to 6= very high)
5. Again,regardless of the amount of formal authority your supervisor has, what are the chances that he or she would "bail you out" at his or her expense? (1= none to 6 = very high)
6. I have enough confidence in my supervisor that I would defend and justify his/her decision if he/she were not present to do so. (1 = strongly disagree to 6 = strongly agree)
7. How would you characterize your working relationship with your supervisor? (1= extremely ineffective to 6= extremely effective).

C. Organization-Based Self-Esteem (Pierce et al., 1989)

Please indicate how well each of the following statements describes your feelings at work. (1 = strongly disagree to 6 = strongly agree).

1. I count around here.
2. I am taken seriously.
3. I am important.
4. I am trusted.
5. I am valuable.
6. I am helpful.
7. I am efficient.
8. I am cooperative.

D. Frustration (Peters et al., 1980)

Please indicate how well each of the following statements describes your feelings at work. (1 = strongly disagree to 6 = strongly agree).
1. Trying to get this job done was a very frustrating experience

E. Feedback-Seeking Behavior (Ashford, 1986)
This next set of items is intended to evaluate how you receive information about your performance. Please use the scale below to indicate how frequently you …. (1 = very infrequently to 6 = very frequently)
1. Seek information from your co-workers about your work performance?
2. Observe what performance behaviors your supervisor rewards and use this as feedback on your own performance?
3. Pay attention to how your supervisor acts toward you in order to understand how he/she perceives and evaluates your work?
4. Seek feedback from your supervisor about your work performance?
5. Compare yourself with peers in your organization (i.e., persons at your level within the organization)?
6. Seek feedback from your supervisor about potential for advancement in your organization?
7. Observe the characteristics of people who are rewarded by your supervisor and use this information?

F. Feedback-Avoiding Behavior (Moss et al., 2003)
Please visualize yourself in a situation at work in which you have not performed as well as you would have liked. Perhaps you miss a deadline or the quality of your work is not up to par. What would you do in this case? Assume you are working for your current supervisor and keep this scenario in mind as you answer the following questions. (1 = very unlikely and 6 = very likely).
1. I would try to schedule outside appointments to avoid my supervisor.
2. I would go the other way when I saw my supervisor coming.
3. I would pretend to be sick and stay home in order to avoid negative feedback from my boss.
4. I would hide from my supervisor.
5. I would take one or more of my vacation/sick days in order to avoid any interaction with my supervisor.
6. I would try to avoid eye contact with my supervisor so that s/he didn't start a conversation with me about my performance.

G. Demographics
Please answer these last few questions about you.
Your age?
Your gender? Male (1) Female (2)
How long have you been working with your current supervisor? _____ Years _____ Months
Your education level? High school or less (1) Diploma (2) Undergraduate (3) Master (4) Doctor (5)

Appendix D. Ethics Approval Letter

Business and Economics Subcommittee
Macquarie University, North Ryde
NSW 2109, Australia

MACQUARIE
University

02/05/2019

Dear Associate Professor Jepsen,

Reference No: 5201950198285
Project ID: 5019
Title: The influences of supervisor feedback on performance: A multilevel perspective

Thank you for submitting the above application for ethical review. The Business and Economics Subcommittee has considered your application.

I am pleased to advise that ethical approval has been granted for this project to be conducted by Associate Professor Denise Jepsen, and other personnel: Miss Lu Xing.

This research meets the requirements set out in the National Statement on Ethical Conduct in Human Research 2007, (updated July 2018).

Standard Conditions of Approval:

1. Continuing compliance with the requirements of the National Statement, available from the following website:
   https://nhmrc.gov.au/about-us/publications/national-statement-ethical-conduct-human-research-2007-updated-2018.

2. This approval is valid for five (5) years, subject to the submission of annual reports. Please submit your reports on the anniversary of the approval for this protocol. You will be sent an automatic reminder email one week from the due date to remind you of your reporting responsibilities.

3. All adverse events, including unforeseen events, which might affect the continued ethical acceptability of the project, must be reported to the subcommittee within 72 hours.

4. All proposed changes to the project and associated documents must be submitted to the subcommittee for review and approval before implementation. Changes can be made via the Human Research Ethics Management System.

The HREC Terms of Reference and Standard Operating Procedures are available from the Research Services website:
https://www.mq.edu.au/research/ethics-integrity-and-policies/ethics/human-ethics.

It is the responsibility of the Chief Investigator to retain a copy of all documentation related to this project and to forward a copy of this approval letter to all personnel listed on the project.

Should you have any queries regarding your project, please contact the Faculty Ethics Officer.

The Business and Economics Subcommittee wishes you every success in your research.

Yours sincerely,

Associate Professor Jana Bowden

Chair, Business and Economics Subcommittee

The Faculty Ethics Subcommittees at Macquarie University operate in accordance with the National Statement on Ethical Conduct in Human Research 2007, (updated July 2018), [Section 5.2.22].