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Article:

Hao, S., Song, L.J., Mostafa, A.M.S. et al. (Accepted: 2026) When does negative feedback promote or undermine employee learning? The interpersonal mechanism of goal-driven help-seeking. *Journal of Occupational and Organizational Psychology*. ISSN: 0963-1798 (In Press)

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When does negative feedback promote or undermine employee learning? The interpersonal mechanism of goal-driven help-seeking

Help-seeking following negative feedback

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Abstract:

Negative feedback is often intended to promote employee learning, yet its effects remain inconclusive. Help-seeking represents a promising but underexplored interpersonal mechanism that may explain how employees learn from negative feedback. This paper aims to investigate why and when negative feedback relates to learning performance through two distinct types of help-seeking behavior: autonomous and dependent. Drawing on achievement goal theory, we propose a moderated serial mediation model in which negative feedback influences learning performance through state goal orientations and help-seeking behaviors in sequence, with trait goal orientations as boundary conditions. We tested our model across two studies in China: a four-wave survey (N = 239 employees, 33 supervisors) and an experimental-causal-chain study (Study 2a: N = 120; Study 2b: N = 170). Results show that negative feedback promotes supervisor-rated learning performance by fostering state mastery goal orientation and autonomous help-seeking, particularly among employees high in trait mastery goal orientation. Conversely, employees high in trait performance-avoidance goal orientation tend to adopt state performance-avoidance goal orientation and engage in dependent help-seeking after receiving negative feedback, which in turn undermines learning. These findings underscore the importance of employees' motivational states and interpersonal responses in determining whether negative feedback promotes or undermines learning.

Keywords:

Negative feedback; Learning; Interpersonal behaviors; Help-seeking; Achievement goal theory

Data availability statement:

The data that support the findings of this study are available from the corresponding author upon reasonable request.

Acknowledgements:

Funding: This work was supported by National Natural Science Foundation of China under Grant 72271196.

Conflict of Interest Statement: The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

STATE OF CONTRIBUTIONS:

Shuwei Hao: Conceptualization, Data Curation, Formal Analysis, Investigation, Methodology, Resources Writing - Original Draft Preparation, Writing - Review & Editing.

Lynda Jiwen Song: Conceptualization, Methodology, Project Administration, Supervision, Writing - Review & Editing.

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Qiushi Wang: Methodology, Validation, Visualization, Writing - Review & Editing.

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Abstract

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Practitioner points

1. Help-seeking type matters: Autonomous help-seeking after negative feedback promotes employee learning performance, while dependent help-seeking undermines it.

2. Create feedback environments that encourage mastery-oriented states: Use growth-framed negative feedback, supportive practices, and role modeling to foster state mastery goal orientations and encourage autonomous help-seeking.

3. Tailor negative feedback to individual traits: Use personality assessments to align feedback with employees' motivational dispositions. For mastery-oriented employees, emphasize challenges to sustain their learning motivation; for performance-avoidant employees, frame feedback as developmental to reduce evaluative threat.

1 Introduction

Supervisor negative feedback refers to a supervisor informing employees that their performance falls short of organizational expectations (Kluger & DeNisi, 1996; Xing et al., 2023). Although negative feedback is often intended to promote workplace learning by highlighting areas in need of improvement (Simon et al., 2022), the existing literature remains inconclusive regarding its impact on employee learning. Some scholars contend that negative feedback provides learning opportunities, fosters employees' self-improvement motives, and encourages task reflection and experimentation (Anseel & Sherf, 2025; Belding et al., 2015). In contrast, others stress that negative feedback may adversely affect learning, as it can evoke negative emotions (Xing et al., 2021), threaten self-esteem (Kim & Kim, 2020), and trigger defensive reactions (Wilhelm et al., 2019). Reflecting this divide, prior research findings remain mixed, with some studies reporting a positive association between negative feedback and learning outcomes (e.g., Su et al., 2022; Xing et al., 2021) and others reporting a negative one (e.g., Guo et al., 2024; Motro et al., 2021). These inconsistent findings raise an important yet understudied question: Why and when do employees learn from negative feedback?

To address this inconsistency, recent research has started to focus on the role of intrapersonal cognitive and behavioral reactions (Alam & Singh, 2021; Xing et al., 2023; Zingoni & Byron, 2017). Studies have found that employees are more motivated to learn from negative feedback when they attribute the supervisor's motives as performance-driven rather than self-serving (Xing et al., 2023), when they perceive negative feedback as valuable rather than threatening (Zingoni & Byron, 2017), or when they engage in deep rather than surface emotion regulation (Alam & Singh, 2021). While insightful, prior studies may have overemphasized intrapersonal processes and overlooked that employees are embedded in interpersonal contexts where learning often occurs through social interactions (Froehlich et

al., 2017; Wilhelm et al., 2019). From an interpersonal perspective, help-seeking, defined as employees' efforts to solicit assistance from others when facing challenging work situations (Lim et al., 2020; Liu et al., 2022), represents a particularly salient strategy when employees attempt to cope with negative feedback (Mueller & Kamdar, 2011). Crucially, help-seeking is a multidimensional construct, with different types offering distinct insights into employee learning. Specifically, autonomous help-seeking reflects soliciting assistance to master problems independently, whereas dependent help-seeking reflects soliciting assistance to fix immediate problems (Liu et al., 2022; Nadler, 1998). Because they differ in the degree of personal motivation and involvement (Komissarouk & Nadler, 2014), which are critical for learning (Kozlowski & Salas, 2009), distinguishing between them provides an important interpersonal lens for understanding why and when negative feedback facilitates or hinders learning. To address the mixed findings regarding the impact of negative feedback on employee learning performance, defined as "the extent to which an employee acquires knowledge and skills to perform tasks" (Guo et al., 2024, p. 740), we investigate the mediating role of different types of help-seeking and the boundary conditions of this process.

Drawing on achievement goal theory (AGT; Vandewalle et al., 2019), we develop and test a moderated serial mediation model wherein trait goal orientations moderate the indirect relationship between negative feedback and learning performance through state goal orientations and help-seeking behaviors in sequence (see Figure 1). As negative feedback activates distinct motivational states (Belding et al., 2015; Kluger & DeNisi, 1996) and employees seek different types of help for different goals (Nadler, 1998), we argue that negative feedback influences employees' help-seeking behaviors by shaping their state goal orientations. Negative feedback may foster a state mastery goal orientation, defined by a focus on learning and improvement (Dweck, 1986), which in turn encourages autonomous help-seeking aimed at learning and ability development. Alternatively, it may elicit a state

performance-avoidance goal orientation, characterized by concerns about avoiding failures and negative evaluations (Vandewalle, 1997), thereby prompting dependent help-seeking focused on the immediate resolution of problems without deeper learning. To explain why employees translate the same feedback into different motivational goals, we integrate AGT with a person \times situation interaction framework (Mischel, 1973; Simon et al., 2022). Specifically, we propose that the extent to which negative feedback shapes state goal orientations depends on employees' corresponding trait goal orientations. Furthermore, we examine the downstream effects of help-seeking behaviors on learning performance. Effective learning requires active involvement and resource investment (Kozlowski & Salas, 2009). Because autonomous help-seeking involves seeking assistance to understand and master tasks, it is expected to facilitate learning. In contrast, dependent help-seeking may reduce employees' active involvement in the problem-solving process and thus be less conducive to learning (Komissarouk & Nadler, 2014).

Insert Figure 1 about here

To establish the internal and external validity of our findings, we test our model using a four-wave survey and an experimental-causal-chain study in China. The Chinese cultural setting, characterized by high relational interdependence and interpersonal harmony (Chen et al., 1998), provides a theoretically meaningful context for investigating interpersonal help-seeking behaviors. This paper contributes to the literature in three ways. First, it advances understanding of how negative feedback affects employee learning by introducing an interpersonal behavioral mechanism. Prior research has yielded inconsistent findings regarding the effects of negative feedback, largely focusing on intrapersonal cognitive or behavioral explanations (Alam & Singh, 2021; Xing et al., 2023; Zingoni & Byron, 2017).

We propose that interpersonal help-seeking behaviors serve as a key mechanism that determines whether negative feedback facilitates or impedes learning. Second, we extend the feedback literature by theorizing the motivational processes through which negative feedback shapes employees' help-seeking behaviors. Drawing on AGT, we identify state goal orientations as proximal motivational states that channel negative feedback into distinct interpersonal responses. Third, we identify trait goal orientations as critical boundary conditions that determine how employees respond to negative feedback. By articulating the person \times situation pattern that trait goal orientations interact with feedback to shape state goal orientations, our study provides a more nuanced understanding of AGT and bridges feedback and motivation literatures.

2 Theoretical background and hypotheses

There are three main elements that define the scope and assumptions of this research. First, we conceptualize negative feedback as the availability of task-relevant information indicating that an employee's performance falls short of organizational expectations (Anseel & Sherf, 2025; Xing et al., 2023). The performance criterion is primarily judgmental rather than intellectual. That is, supervisors provide subjective evaluations of employees' performance rather than objective assessments based on correct solutions. Feedback communication flows mainly downward from supervisors to employees, with upward communication beyond the scope of this paper. Temporally, the feedback concerns employees' past performance and aims to guide their future performance in the same task. Second, we focus on coworker-directed rather than supervisor-directed help-seeking, given that negative feedback delivered by supervisors can evoke threat perceptions that discourage further interaction (Kim & Kim, 2020; Thacker & Stoner, 2012). Third, our outcome reflects supervisor-rated learning performance, capturing socially evaluated learning outcomes rather than within-person growth trajectories.

2.1 Help-seeking

Employees seek valuable resources from others, including feedback, information, advice, and help (Lim et al., 2020; Sherf et al., 2024). While these seeking behaviors share common proactive attempts to obtain assistance, research on them has largely evolved in relative isolation, with each focusing on distinct social dynamics and motivations. Help-seeking, defined as “the effort to solicit assistance from others” (Liu et al., 2022, p. 558), could be a problem-induced response to cope with challenging work situations (Liu et al., 2022). When confronted with specific difficulties, such as negative feedback, help-seeking constitutes a proactive interpersonal coping strategy whereby employees actively solicit resources from others (Bamberger, 2009). For the past 45 years, scholars have distinguished between autonomous and dependent help-seeking, guided by the logic of “asking how to fish” versus “asking for fish” (Bamberger, 2009). It is only recently that scholars in organizational behavior have begun to pay attention to these two distinct types of help-seeking behavior (Geller & Bamberger, 2012; Liu et al., 2022). Autonomous help-seeking refers to the solicitation of assistance with the goal of independently mastering encountered problems, while dependent help-seeking refers to the solicitation of assistance with the goal of solving immediate problems (Liu et al., 2022; Nadler, 1998). The distinction between the two types of help-seeking behavior lies in their underlying goals and the extent of the help-seeker’s involvement in addressing the problem (Geller & Bamberger, 2012; Komissarouk & Nadler, 2014). Employees seeking autonomous help are driven by an aspiration for learning and mastery, and engage in the problem-solving process to learn how to resolve it independently in the future. In contrast, those seeking dependent help primarily focus on expediency and rely on others rather than themselves to solve problems.

2.2 Achievement goal theory

Achievement goal theory (AGT) explains individuals’ responses to challenges in achievement

situations, positing that their motivation and behavior are guided by the goals they pursue (Alexander & Van Knippenberg, 2014; Vandewalle et al., 2019). Within this framework, early scholars distinguished between two types of goal orientation: mastery goals (also referred to as learning goals) and performance goals (Dweck, 1986). Later, achievement goal theorists applied the concepts of approach and avoidance to performance goals, proposing a three-factor achievement goal model: mastery goals, performance-approach goals, and performance-avoidance goals (Elliot & Harackiewicz, 1996; Vandewalle, 1997). Mastery goals refer to goals “in which individuals seek to increase their competence, to understand or master something new” (Dweck, 1986, p. 1040). Performance-approach goals refer to “the desire to prove one’s competence and to gain favorable judgments about it,” whereas performance-avoidance goals refer to “the desire to avoid the disproving of one’s competence and to avoid negative judgments about it” (Vandewalle, 1997, p. 1000).

Individuals with high mastery goals adopt a development-focused mindset. They tend to exert greater effort at work (Dysvik & Kuvaas, 2013), employ deep learning strategies (Simons et al., 2004), and proactively seek feedback (Vandewalle & Cummings, 1997). In part because they evaluate competence against self-referential standards, they perceive interpersonal interactions as less risky and engage more readily in information and knowledge sharing (Vandewalle et al., 2019). In contrast, individuals with high performance-avoidance goals focus on avoiding negative competence evaluations. They typically exhibit low self-efficacy, strive to complete tasks with minimal effort (Kaplan & Maehr, 2007), evade risky activities (Smith, 2004), resist feedback-seeking (Vandewalle & Cummings, 1997), and employ surface learning strategies (Simons et al., 2004). While the effects of mastery and performance-avoidance goals tend to be relatively consistent, the effects of performance-approach goals are more equivocal. As Marquardt et al. (2021) note, performance-approach goals simultaneously involve adaptive processes linked to approach

motivation and maladaptive processes tied to competence demonstration via interpersonal comparison, leading to conceptual ambiguity and mixed empirical findings. For example, performance-approach goals have been positively associated with autonomous help-seeking (Tanaka et al., 2002), dependent help-seeking (Linnenbrink, 2005), and even avoidance of help-seeking (Linnenbrink, 2005). Given our focus on clarifying the relationship between negative feedback and learning through the interpersonal mechanism of help-seeking, we concentrate on mastery and performance-avoidance goals and include performance-approach goals as a control.

Our focus on the interpersonal mechanism of help-seeking is substantiated by a broader stream of research demonstrating that goal orientations shape social behaviors at work. Some studies have examined how goal orientations affect individuals' active efforts to influence others, such as information sharing (Poortvliet et al., 2007), knowledge management (Rhee & Choi, 2017), and leadership styles (Zheng et al., 2025). Other studies have focused on how goal orientations affect individuals' willingness to accept influence from others, such as information seeking (Tan et al., 2016) and resistance (Brett et al., 2016). A widely accepted view is that mastery goals promote adaptive interpersonal exchanges, whereas performance-oriented goals often lead to competitive or less constructive responses (Brett et al., 2016; Poortvliet et al., 2007).

Moreover, AGT conceptualizes goal orientations as both dispositional traits and situation-dependent states (Payne et al., 2007; Vandewalle et al., 2019). Trait goal orientations represent unconditional tendencies expressed consistently across contexts, whereas state goal orientations are malleable and influenced by contextual stimuli. Compared with traits, state goal orientations often exert stronger effects on distal outcomes (Alexander & Van Knippenberg, 2014; Payne et al., 2007). Prior research has documented that trait goal orientations (Payne et al., 2007) and contextual factors (Beck & Schmidt, 2013)

independently influence state goal orientations. There is also some evidence that trait goal orientations may interact with situational factors to influence work outcomes more broadly (Hirst et al., 2009). Nonetheless, it is surprising that relatively little research has systematically examined how traits and contextual stimuli jointly shape the emergence of state goal orientations. To our knowledge, only one study has provided preliminary evidence of such an interactive effect (Heidemeier & Bittner, 2012). Building on these insights, and drawing from the person \times situation interaction framework, which posits that personality and situational factors jointly influence behaviors (Mischel, 1973; Simon et al., 2022), we theorize that trait goal orientations interact with situational stimuli to shape individuals' state goal orientations, which in turn guide goal-directed behaviors.

2.3 The mediating roles of state goal orientations

Drawing on AGT, we argue that negative feedback affects help-seeking behaviors by shaping employees' state goal orientations. On the one hand, negative feedback may promote autonomous help-seeking by eliciting a state mastery goal orientation. Negative feedback highlights discrepancies between employees' current performance and organizational standards, creating a perceived need for increased effort (Kluger & DeNisi, 1996). It directs attention to deficiencies and signals improvement opportunities, motivating employees to reflect on past shortcomings and pursue future growth (Bakker et al., 2005). With this self-referential improvement focus, employees who receive negative feedback are likely to adopt a momentary mastery goal orientation centered on learning and skill development. These arguments align with feedback intervention theory, which posits that recognizing discrepancies motivates individuals to rectify prior failures and enhance future performance (Kluger & DeNisi, 1996). Empirical evidence also supports the potential positive association between negative feedback and state mastery goal orientation (Belding et al., 2015; Xing et al., 2023).

According to AGT, employees with a state mastery goal orientation tend to engage in learning-oriented behaviors (Payne et al., 2007). As an interpersonal learning strategy, help-seeking serves as an effective means for these employees to learn following negative feedback (Froehlich et al., 2017). When contemplating seeking help from coworkers, their primary aim is to develop necessary competencies—not merely to address immediate problems but also to avoid or manage any issues generating the initial problem. As such, they are more likely to seek autonomous help (Bamberger, 2009; Liu et al., 2022). Supporting this view, research in education has found positive associations between mastery goals and autonomous help-seeking among students and teachers (Butler, 2007; Tanaka et al., 2002). Taken together, we argue that negative feedback should stimulate employees' state mastery goal orientations, which in turn should foster autonomous help-seeking.

Hypothesis 1 (H1): State mastery goal orientation mediates the positive relationship between negative feedback and autonomous help-seeking.

On the other hand, negative feedback may promote dependent help-seeking by eliciting a state performance-avoidance goal orientation. While highlighting areas for improvement, negative feedback also threatens employees' abilities, image, and self-esteem (Belding et al., 2015; Kim & Kim, 2020; Kluger & DeNisi, 1996). In response, self-protection motives are activated (Alicke & Sedikides, 2009), prompting employees to avoid negative competence evaluations by adopting performance-avoidance goals. Consistent with this view, AGT research has shown that threatening events promote the situational adoption of performance-avoidance goal orientations (Beck & Schmidt, 2013). In turn, state performance-avoidance goal orientation is expected to foster dependent help-seeking. Negative feedback threatens self-views, prompting employees with heightened avoidance goals to withdraw from challenging tasks to protect their self-image. However, because they must still complete assigned work to maintain their organizational standing, they seek to minimize effort while

fulfilling demands (Kaplan & Maehr, 2007). As a result, they are more likely to seek dependent help, soliciting direct solutions from coworkers (Bamberger, 2009; Liu et al., 2022). It is noted that this prediction departs from educational research showing that students with performance-avoidance goals avoid help-seeking (Butler, 2007; Tanaka et al., 2002). We attribute this difference to autonomy: Whereas students can disengage from studying, employees are obligated to complete work tasks. Taken together, we argue that negative feedback should stimulate employees' state performance-avoidance goal orientations, which in turn should foster dependent help-seeking.

Hypothesis 2 (H2): State performance-avoidance goal orientation mediates the positive relationship between negative feedback and dependent help-seeking.

2.4 The moderating roles of trait goal orientations

A key question then arises: Under what conditions do distinct state goal orientations emerge? Integrating a person \times situation interaction framework with AGT (Mischel, 1973; Payne et al., 2007), we propose that the effect of negative feedback on state goal orientations depends on employees' corresponding trait goal orientations. On the one hand, we predict that employees' trait mastery goal orientation moderates the effect of negative feedback on state mastery goal orientation. According to AGT, employees inherently oriented toward mastery are inclined to develop new abilities, prefer challenging tasks, construe difficulty as a signal for further improvement, and actively seek resources conducive to learning (Butler, 2007). Such employees tend to perceive stressful situations as opportunities for growth (Vandewalle et al., 2019). Accordingly, when receiving negative feedback from supervisors, they are more likely to interpret it as a learning opportunity and to adopt a mastery-oriented mindset in response. In contrast, employees low in trait mastery goal orientation lack an inherent drive to learn from challenges. When faced with negative feedback, they are more likely to respond defensively, downplay the importance of feedback, neglect opportunities for development and

fail to adopt a mastery-oriented state. Therefore, we hypothesize:

Hypothesis 3 (H3): Trait mastery goal orientation moderates the relationship between negative feedback and state mastery goal orientation, such that the relationship is more positive when trait mastery goal orientation is high than when it is low.

On the other hand, we predict that employees' trait performance-avoidance goal orientation moderates the effect of negative feedback on state performance-avoidance goal orientation. According to AGT, employees high in trait performance-avoidance goal orientation are primarily driven by concerns about avoiding negative evaluations of their abilities (Vandewalle, 1997). They tend to construe difficulty as indicative of low ability and refrain from exposing it (Butler, 2007). Consequently, they are prone to perceive stressful situations such as negative feedback as threats to their competence evaluations (Vandewalle et al., 2019). When confronted with negative feedback, these employees are more likely to experience heightened vigilance toward potential failure or criticism and, in turn, to adopt a performance-avoidance mindset. In contrast, employees low in trait performance-avoidance goal orientation are less likely to interpret negative feedback as a threat, thus being less concerned with negative competence evaluations. As a result, they might remain less influenced by negative feedback in terms of adopting situational performance-avoidance goal orientations. Therefore, we hypothesize:

Hypothesis 4 (H4): Trait performance-avoidance goal orientation moderates the relationship between negative feedback and state performance-avoidance goal orientation, such that the relationship is more positive when trait performance-avoidance goal orientation is high than when it is low.

2.5 The downstream effects on learning performance

We further examine the downstream effects of the two types of help-seeking behavior on employee learning performance, proposing that autonomous help-seeking is positively related

to learning performance, whereas dependent help-seeking is negatively related to it. Learning requires active individual involvement and resource investment (Kozlowski & Salas, 2009). In particular, effective learning processes involve self-awareness of one's limitations, the motivation to improve, and refinement of task execution methods (Zimmerman, 2002). These characteristics mirror the cognitive and motivational processes underpinning autonomous help-seeking, wherein individuals acquire and internalize knowledge or skills for independent application in future tasks, rather than relying on repeated external assistance (Nadler, 1998). Indeed, autonomous help-seeking has been positively associated with adaptive learning outcomes (Shim et al., 2016). For example, employees who engage in autonomous help-seeking are more likely to solicit explanations, insights, and expertise aimed at mastering underlying principles (Geller & Bamberger, 2012), thereby fostering deeper cognitive processing and enhanced understanding. This deeper engagement not only facilitates the development of more efficient problem-solving strategies but also strengthens employees' self-efficacy beliefs regarding their capability to address work-related challenges (Liu et al., 2022). In turn, higher self-efficacy enhances sustained effort in future learning activities, ultimately contributing to improved learning performance (Zimmerman, 2002). Therefore, we hypothesize:

Hypothesis 5 (H5): Autonomous help-seeking is positively related to learning performance.

In contrast, dependent help-seeking is driven by the desire to expedite task completion with minimal effort, rather than a genuine interest in learning (Shim et al., 2016). This lack of intrinsic learning motivation diminishes the effort and persistence necessary for addressing complex tasks, ultimately undermining learning performance (Zimmerman, 2002). In addition, compared to the relative independence of autonomous help-seekers, dependent help-seekers may become overly reliant on external assistance, which hampers the development of

self-confidence in their own abilities (Liu et al., 2022). Such overreliance fosters a passive approach to learning, whereby employees are less likely to engage proactively in their tasks or seek to overcome challenges independently, thereby restricting their potential for professional improvement and skill advancement. Empirical evidence corroborates these concerns, linking dependent help-seeking with maladaptive learning outcomes, including lower motivation, diminished self-efficacy, and poor long-term achievement (Liu et al., 2022; Shim et al., 2016). Therefore, we hypothesize:

Hypothesis 6 (H6): Dependent help-seeking is negatively related to learning performance.

Furthermore, by integrating the sequential mediation of state goal orientations and help-seeking behaviors in the relationship between negative feedback and learning performance, along with the moderating roles of trait goal orientations, we propose a moderated serial mediation model.

Hypothesis 7 (H7): Trait mastery goal orientation moderates the indirect effect of negative feedback on learning performance through state mastery goal orientation and autonomous help-seeking in sequence, such that the indirect effect is more positive when trait mastery goal orientation is high than when it is low.

Hypothesis 8 (H8): Trait performance-avoidance goal orientation moderates the indirect effect of negative feedback on learning performance through state performance-avoidance goal orientation and dependent help-seeking in sequence, such that the indirect effect is more negative when trait performance-avoidance goal orientation is high than when it is low.

3 Overview of studies

We tested our hypotheses across two studies in China. Study 1 employed a multiwave, multisource field survey, and Study 2 employed an experimental-causal-chain approach

(Spencer et al., 2005). We operationalized negative feedback in two forms: a routine form in Study 1, referring to the frequency of receiving messages about performance shortfalls (Xing et al., 2021), and an episodic form in Study 2, referring to negative performance messages conveyed in a specific event (Anseel & Sherf, 2025). Study 1 examined the full hypothesized model (H1–H8) via four waves of data from employees and their immediate supervisors. Study 2 was designed to establish causality. Study 2a manipulated negative feedback to assess its effect on state goal orientations, whereas Study 2b manipulated state goal orientations to assess their effects on help-seeking behaviors.

In both studies, we did not restrict participants by industry or occupation for three reasons. First, technological advancements and evolving work demands necessitate continuous learning across a wide range of industries. Second, the provision of negative feedback by supervisors is a common managerial practice across sectors. Third, help-seeking behaviors are pervasive across organizational contexts (Liu et al., 2022). Informed consent for participation and publication was obtained from all participants included in both studies.

4 Study 1

4.1 Method

4.1.1 Sample and procedure

We collected data from five companies in mainland China, operating across various industries including hardware and software development, education and training, and financial services. All data collection procedures adhered to standard institutional review board guidelines, ensuring voluntary participation and confidentiality. With the assistance of managers at each participating company, we administered surveys through a professional online platform (www.huajuetech.com), using precollected basic information to match employees with their immediate supervisors.

Initially, we recruited 267 employees working under 37 supervisors. Employees received

monetary incentives of CNY5.00, 10.00, and 20.00 for providing valid responses to the Time 1, Time 2, and Time 3 surveys, respectively, whereas supervisors received CNY20.00 for their participation. At Time 1, employees completed measures of negative feedback, trait goal orientations, and control variables (i.e., positive feedback and demographic information). We received 257 responses at Time 1 (response rate = 96.3%). One response was excluded for failing the attention check question (“please select ‘strongly agree’ for this question”), leaving 256 valid responses. At Time 2, two weeks after Time 1, employees rated their state goal orientations at work. We adopted a two-week time lag because prior research has shown that this interval is sufficient for capturing the effects of negative feedback on psychological processes (Xing et al., 2023). At Time 3, two weeks after Time 2, employees completed measures of their help-seeking behaviors and control variables (i.e., Big Five personality traits). At both Time 2 and Time 3, there was no attrition, and all 256 employees passed the attention check questions. At Time 4, one month after Time 3, 33 supervisors evaluated the learning performance of their corresponding employees (response rate = 89.2%). The four supervisors who did not complete the Time 4 survey collectively supervised 17 employees. Their responses of these employees were excluded as learning performance data were unavailable. Ultimately, the final sample comprised 239 employees and 33 supervisors.

Among the 239 employees, 51.0% were male. The average age was 30.20 years ($SD = 6.80$) and the average team tenure was 3.28 years ($SD = 4.03$). The majority (44.4%) had a college degree and 29.3% had a bachelor’s degree. Among the 33 supervisors, 54.5% were male. The average age was 41.21 years ($SD = 7.57$) and the average organizational tenure was 16.94 years ($SD = 8.68$). The majority (51.5%) had a bachelor’s degree and 33.3% had a postgraduate degree.

4.1.2 Measures

We measured all constructs using prevalidated scales. To translate the original English items

into Chinese, we conducted the standard back-translation procedure (Brislin, 1980). Unless otherwise indicated, all items were anchored on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Negative feedback. Following prior research (Xing et al., 2023; Xing et al., 2021), we adopted a frequency-based scale to assess the perceived frequency of negative feedback from supervisors. This approach captures information availability while de-emphasizing any implication that the employee's performance warrants such feedback. Negative feedback was measured using a four-item scale originally developed by Steelman et al. (2004) and revised by Xing et al. (2023). A sample item was "My supervisor lets me know that my job performance falls below what is expected" (1 = never, 5 = always; $\alpha = .85$).

State goal orientations. We measured state goal orientations using the scales validated by Vandewalle (1997), with the items contextualized to capture participants' goal orientations at work during the previous two weeks (Beck & Schmidt, 2013). Following Rhee and Choi (2017), we selected three items with the highest factor loadings from each goal orientation dimension. Sample items included "I was willing to select a challenging work assignment that I can learn a lot from" (state mastery goal orientation, $\alpha = .86$), "I preferred to avoid a situation at work where I may perform poorly" (state performance-avoidance goal orientation, $\alpha = .74$), and "I enjoyed it when others at work were aware of how well I was doing" (state performance-approach goal orientation, $\alpha = .80$).

Trait goal orientations. We measured trait goal orientations using the same scales as those used for state goal orientations, with instructions modified to ask participants to indicate the extent to which each statement described them in general (trait mastery goal orientation: $\alpha = .97$; trait performance-avoidance goal orientation: $\alpha = .91$).

Help-seeking behaviors. Participants rated their help-seeking behaviors at work during the previous two weeks using two three-item scales from Liu et al. (2022). Sample items

included “I sought help from my teammates by asking them to share their experience with me so that I can solve similar issues on my own in the future” (autonomous help-seeking, $\alpha = .73$) and “I asked my teammates to solve my problems directly without teaching me the skills needed to solve similar problems on my own” (dependent help-seeking, $\alpha = .82$).

Learning performance. Learning performance was operationalized as supervisor-rated learning outcomes, reflecting supervisors’ perceptions of employees’ development in job-related KSAs (knowledge, skills, and abilities) during the previous month. We measured learning performance using a four-item scale (Van Hootegem et al., 2021). A sample item was “This person developed new skills, which enable him/her to do work more efficiently,” $\alpha = .94$.

Control variables. Following prior research on feedback (Kim & Kim, 2020; Xing et al., 2023), we controlled for positive feedback to disentangle the effects of negative and positive feedback. Positive feedback was measured using a four-item scale from Xing et al. (2023). A sample item was “my supervisor lets me know that I did a good job at work” (1 = never, 5 = always; $\alpha = .81$). Following Hair et al. (2010), one item was dropped because its factor loading was below .50 (“I did not receive praise from my supervisor”). We also controlled for participants’ demographic variables (gender, age, education, and team tenure) and the Big Five personality traits, because these factors significantly influence help-seeking behaviors (Liu et al., 2022; Wang et al., 2023). We measured the Big Five personality traits using the 20-item scale developed by Pathki et al. (2022).

4.1.3 Analytical strategy

Because employees were nested within supervisors, we employed random coefficient modeling (RCM) to account for the nonindependence of observations. RCM is useful for taking into account the nested nature of data by isolating within-supervisor effects and eliminating confounding due to between-supervisor differences (Bliese & Hanges, 2004). We

first estimated null models with state mastery goal orientation, state performance-avoidance goal orientation, autonomous help-seeking, dependent help-seeking, or learning performance as the dependent variable. Results indicated significant between-group variances in state mastery goal orientation ($ICC1 = .11$), state performance-avoidance goal orientation ($ICC1 = .17$), autonomous help-seeking ($ICC1 = .12$), and learning performance ($ICC1 = .22$), supporting the use of RCM as the appropriate analytical approach. Consistent with our focus on individual-level predictors and their interactions, all level 1 predictors were group-mean centered (Enders & Tofghi, 2007). Finally, we specified the intercept and slope for negative feedback as random, allowing these effects to vary across supervisors.

4.2 Results

4.2.1 Confirmatory factor analysis

We conducted a confirmatory factor analysis (CFA) with Mplus 7.0 (Muthén & Muthén, 1998–2012) to test the factor structure of our measurement model. The results of CFA suggested a good fit of the hypothesized eight-factor model to the data ($\chi^2(271) = 355.60$, $CFI = .98$, $TLI = .97$, $RMSEA = .04$, $SRMR = .04$). The eight-factor model fit the data better than other alternatives (see S1 of the supplementary materials). All factor loadings were significant on the appropriate construct at the .01 level.

4.2.2 Common method bias

Common method bias was assessed using Harman's single-factor test. The total variance explained by a single factor was 27.24%, which was considerably lower than 50% (Podsakoff et al., 2003). We also compared a one-factor model, where all items were loaded onto a single factor, with the hypothesized eight-factor model. The goodness-of-fit of the one-factor model was significantly poorer ($\chi^2(299) = 2891.87$, $CFI = .29$, $TLI = .23$, $RMSEA = .19$, $SRMR = .19$, $\Delta\chi^2(28) = 2536.27$, $p < .01$). Thus, common method bias was not a serious problem in this study.

4.2.3 Descriptive statistics and correlations

The descriptive statistics and correlations of our variables are shown in Table 1.

Insert Table 1 about here

4.2.4 Hypotheses testing

Results of the RCM analyses are presented in Table 2. For all models, the random slopes for negative feedback were not significant (variance components range from .00 to .07, all p s > .10), indicating that the effects of negative feedback did not vary significantly across supervisors. To test the significance of indirect effects, we used the PRODCLIN program (MacKinnon et al., 2007). H1 predicted that negative feedback is positively related to autonomous help-seeking through state mastery goal orientation. As shown in Models 1 and 6, negative feedback had a positive relationship with state mastery goal orientation ($\gamma = .13, p < .05$), and state mastery goal orientation had a marginally significant and positive relationship with autonomous help-seeking ($\gamma = .12, p < .10$). The PRODCLIN results showed that the indirect effect was positive and significant (indirect effect = .02, 95% CI [.001, .036]). Therefore, H1 was supported.

Insert Table 2 about here

H2 predicted that negative feedback is positively related to dependent help-seeking through state performance-avoidance goal orientation. As shown in Models 3 and 8, negative feedback had a negative relationship with state performance-avoidance goal orientation ($\gamma = -.17, p < .05$), and state performance-avoidance goal orientation had a positive relationship with dependent help-seeking ($\gamma = .43, p < .01$). The PRODCLIN results showed that the

indirect effect was negative (indirect effect = $-.06$, 95% CI [$-.166, -.006$]). Therefore, H2 was not supported.

H3 proposed that trait mastery goal orientation moderates the relationship between negative feedback and state mastery goal orientation. As shown in Model 2, the interaction term was positive and significant ($\gamma = .11, p < .01$). Thus, H3 was supported. Following recommended multilevel procedures (Preacher et al., 2006), we plotted the interaction pattern at high (+1 *SD*) and low (-1 *SD*) levels of trait mastery goal orientation in Figure 2. Consistent with H3, the relationship between negative feedback and state mastery goal orientation was positive when trait mastery goal orientation was high ($\gamma = .15, p < .05$) but nonsignificant when it was low ($\gamma = -.07, ns$).

Insert Figure 2 about here

H4 proposed that trait performance-avoidance goal orientation moderates the relationship between negative feedback and state performance-avoidance goal orientation. As shown in Model 4, the interaction term was positive and significant ($\gamma = .23, p < .05$). Thus, H4 was supported. The interaction pattern is shown in Figure 3. Consistent with H4, the relationship between negative feedback and state performance-avoidance goal orientation was nonsignificant when trait performance-avoidance goal orientation was high ($\gamma = .12, ns$) but negative when it was low ($\gamma = -.44, p < .01$).

Insert Figure 3 about here

H5 and H6 predicted that autonomous help-seeking is positively related to learning performance, whereas dependent help-seeking is negatively related. As shown in Model 10,

autonomous help-seeking had a positive relationship with learning performance ($\gamma = .30, p < .05$), whereas dependent help-seeking had a negative relationship ($\gamma = -.33, p < .01$).

Therefore, H5 and H6 were supported.

To test the moderated serial mediation model proposed in H7 and H8, we used Mplus 7.0. Given the nested nature of our data, we employed the TYPE = COMPLEX option with the MLR estimator (maximum likelihood estimation with robust standard errors) to account for the nonindependence. The results showed that the indirect effect of negative feedback on learning performance through state mastery goal orientation and autonomous help-seeking in sequence was moderated by trait mastery goal orientation at a marginally significant level. Specifically, the indirect effect was positive when trait mastery goal orientation was high (indirect effect = .01, 95% CI [-.002, .023], 90% CI [.000, .021]) but nonsignificant when it was low (indirect effect = -.01, 95% CI [-.023, .007], 90% CI [-.021, .004]). The difference between the two conditional indirect effects was positive ($\Delta = .02$, 95% CI [-.001, .039], 90% CI [.002, .036]), suggesting a marginally significant moderated serial mediation effect. This pattern may reflect limited statistical power due to the modest sample size. In addition, trait performance-avoidance goal orientation significantly moderated the indirect effect of negative feedback on learning performance through state performance-avoidance goal orientation and dependent help-seeking in sequence. The indirect effect was nonsignificant when trait performance-avoidance goal orientation was high (indirect effect = -.02, 95% CI [-.047, .015]) but positive when it was low (indirect effect = .05, 95% CI [.011, .083]). The difference between the two conditional indirect effects was significant ($\Delta = -.06$, 95% CI [-.116, -.010]). Therefore, H7 and H8 were supported.

4.2.5 Robustness tests

To ensure the robustness of our findings, we repeated the analyses without control variables, and similar results were obtained (see S2 of the supplementary materials). We also examined

state performance-approach goal orientation as an alternative mediator, and found it was unrelated to negative feedback ($\gamma = .10, se = .07, p > .10$) and the indirect effects were not significant for either autonomous (indirect effect = .02, 95% CI [-.003, .038]) or dependent (indirect effect = -.02, 95% CI [-.057, .007]) help-seeking.

5 Study 2

Using an experimental-causal-chain approach (Spencer et al., 2005), we conducted two separate experiments to further test the causal links between negative feedback and help-seeking behaviors through state goal orientations. Study 2a tested the causal effect of negative feedback on state goal orientations and the moderating roles of trait goal orientations. Study 2b tested the causal effect of state goal orientations on help-seeking behaviors. Together, these two experiments enable us to make causal inferences about the indirect effect of negative feedback on help-seeking behaviors through state goal orientations.

5.1 Study 2a

5.1.1 Method: sample, procedure, and measures

We preregistered this study at: <https://aspredicted.org/8zk4-7xjn.pdf>. We conducted an a priori power analysis using G*Power for a linear regression model testing the moderation effect (Faul et al., 2007). Assuming a medium effect size ($f^2 = .15$), $\alpha = .05$, and power = .80, the analysis indicated a minimum required sample size of 92 participants. We recruited 120 full-time Chinese employees through Credamo (www.credamo.com), a professional online survey platform widely used in social science research. Participants received CNY1.00 as compensation for their participation. Among the 120 employees, 21.7% were male. The average age was 33.30 years ($SD = 7.35$) and the average team tenure was 9.09 years ($SD = 6.80$). The majority (71.7%) had a bachelor's degree and 10.8% had a postgraduate degree.

Participants first completed a measure of trait goal orientations using the same scale as in Study 1 (1 = strongly disagree, 7 = strongly agree; trait mastery goal orientation: $\alpha = .90$;

trait performance-avoidance goal orientation: $\alpha = .88$). They were then randomly assigned to negative feedback ($N = 59$) or no feedback ($N = 61$) conditions. All participants read a vignette describing a workplace scenario and were asked to imagine themselves as new employees at a large consulting firm who had recently submitted a consulting report to their supervisor, Mr. Zhang. In the negative feedback condition, participants were told that they had received an email from Mr. Zhang stating: “This report is not well done. Your recent work performance has also been unsatisfactory. Overall, I’m quite disappointed in your performance. Perhaps you’re not particularly good at handling this type of task.” In the no feedback condition, participants were told that Mr. Zhang had been on a business trip and had not yet reviewed the report, and therefore they had received no feedback.

After reading the scenario, participants reported their state goal orientations (1 = strongly disagree, 7 = strongly agree). We adapted items from Elliot and Church (1997) by revising the wording of each item to reflect the workplace setting described in our scenario and selecting three items with the highest factor loadings for each dimension. Sample items included “I want to learn as much as possible from this project” (state mastery goal orientation, $\alpha = .84$) and “I’m worried about the possibility of performing poorly on this project” (state performance-avoidance goal orientation, $\alpha = .87$). For the manipulation check, participants were asked whether they received feedback from Mr. Zhang. Those who responded “yes” were further asked how they felt about the feedback they received on a scale from 1 (extremely negative) to 7 (extremely positive).

5.1.2 Results

We verified the effectiveness of the negative feedback manipulation. First, all participants in the no feedback condition reported not receiving supervisor feedback. Second, participants in the negative feedback condition rated the feedback they received as negative ($M = 2.12$, $SD = .85$), significantly below the scale midpoint of 4, $t(53) = 16.95$, $p < .01$. To address

concerns about potential overlap among the trait and state goal orientation measures, we conducted a CFA with Mplus 7.0. The four-factor model showed a good fit ($\chi^2(48) = 57.84$, CFI = .99, TLI = .99, RMSEA = .04, SRMR = .06), and fit better than other alternatives (e.g., a three-factor model that combined trait and state mastery goal orientation: $\chi^2(51) = 96.66$, CFI = .96, TLI = .95, RMSEA = .09, SRMR = .07), providing support for discriminant validity.

We applied the PROCESS macro for SPSS 26.0 to test the moderating effect of trait goal orientations on the relationship between negative feedback and state goal orientations (Hayes, 2012). For state mastery goal orientation, negative feedback showed a positive main effect ($b = .45, p < .01$) and a positive interaction with trait state mastery goal orientation ($b = .32, p < .05$). A simple slope analysis (Figure 4) indicated that the effect of negative feedback on state mastery goal orientation was more positive when trait mastery goal orientation was high ($b = .81, p < .01$) than when it was low ($b = .10, ns$). For state performance-avoidance goal orientation, negative feedback showed a positive main effect ($b = .16, p < .01$) and a positive interaction with trait performance-avoidance goal orientation ($b = .19, p < .01$). A simple slope analysis (Figure 5) indicated that the effect of negative feedback on state performance-avoidance goal orientation was more positive when trait performance-avoidance goal orientation was high ($b = .40, p < .01$) than when it was low ($b = -.07, ns$). These results establish the causal effects of negative feedback on state goal orientations and provide further support for the moderating roles of trait goal orientations.

Insert Figure 4 about here

Insert Figure 5 about here

5.2 Study 2b

5.2.1 Method: sample, procedure, and measures

We preregistered this study at: <https://aspredicted.org/nyhm-ncn2.pdf>. We conducted an a priori power analysis using G*Power for a two-tailed independent samples t-test (Faul et al., 2007). Assuming a medium effect size ($d = .50$), $\alpha = .05$, and power = .80, the analysis indicated a minimum required sample size of 128 participants (64 per condition). We recruited 170 full-time Chinese employees through Credamo. Participants received CNY1.00 as compensation for their participation. Among the 170 employees, 33.5% were male. The average age was 33.68 years ($SD = 7.61$) and the average team tenure was 9.34 years ($SD = 6.90$). The majority (72.4%) had a bachelor's degree and 17.1% had a postgraduate degree.

Participants read the same vignette used in Study 2a, with all participants receiving negative feedback. To create a context in which help-seeking would be relevant, participants were further informed that they were required to revise the report within the next two days. They were then randomly assigned to state mastery goal orientation ($N = 85$) or state performance-avoidance goal orientation ($N = 85$) conditions. In the state mastery goal orientation, participants read: "People often adopt different goals when dealing with difficult work tasks especially after receiving negative feedback. One such goal is a 'mastery' goal. People with a mastery goal tend to treat these challenges as opportunities to grow, to deepen their understanding, and to improve their skills. They focus on learning from feedback, rather than avoiding failure. For this report revision task, we encourage you to adopt a mastery goal." In the state performance-avoidance goal orientation, participants read: "People often adopt different goals when dealing with difficult work tasks especially after receiving negative feedback. One such goal is a 'performance-avoidance' goal. People with a performance-avoidance goal tend to focus on avoiding further negative judgments and on not

letting others think poorly of their competence. They typically strive to complete tasks with minimal effort to avoid showing weakness or incompetence. For this report revision task, we encourage you to adopt a performance-avoidance goal.”

After reading the scenario, participants reported their help-seeking intentions rather than actual behavior because the experimental scenario did not permit real help-seeking actions, and intention measures are commonly used as valid proximal indicators of behavior in such contexts (Liu et al., 2022). Help-seeking behavior was assessed using six items adapted from Liu et al. (2022) on a seven-point Likert scale (1 = very unlikely, 7 = very likely), including three items for autonomous help-seeking (e.g., “ask my coworkers if they have any useful materials that I can review so that I can try to revise the report by myself,” $\alpha = .83$) and three items for dependent help-seeking (e.g., “ask my coworkers if they are willing to directly revise the difficult parts of the report for me so that I can proceed with the task,” $\alpha = .82$). For the manipulation check of negative feedback, we employed the same procedure as in Study 2a. For the manipulation check of state goal orientations, participants answered two questions on a seven-point Likert scale (1 = strongly disagree, 7 = strongly agree): “I tried to learn as much as I could from this report revision task” and “My main concern was to avoid making further mistakes.”

5.2.2 Results

We assessed the effectiveness of the manipulation of negative feedback and state goal orientations. Participants rated the feedback they received as negative ($M = 2.04$, $SD = .86$), significantly below the scale midpoint of 4, $t(169) = 29.93$, $p < .01$. As expected, participants in the state mastery goal orientation condition reported higher mastery goal orientation ($M = 6.29$, $SD = .72$) than those in the state performance-avoidance goal orientation condition ($M = 4.49$, $SD = 1.76$, $t(168) = 8.74$, $p < .01$). In contrast, participants in the state performance-avoidance goal orientation condition reported higher performance-avoidance goal orientation

($M = 6.20$, $SD = .97$) than those in the state mastery goal orientation condition ($M = 3.53$, $SD = 1.56$, $t(168) = 13.42$, $p < .01$).

We conducted an independent sample t-test to examine the effects of state goal orientations on help-seeking behaviors. The results showed that participants in the state mastery goal orientation condition reported a greater likelihood of engaging in autonomous help-seeking ($M = 5.87$, $SD = .69$) than those in the state performance-avoidance goal orientation condition ($M = 4.76$, $SD = 1.48$, $t(168) = 6.25$, $p < .01$). In contrast, participants in the performance-avoidance goal orientation condition reported a greater likelihood of engaging in dependent help-seeking ($M = 4.95$, $SD = 1.34$) than those in the state mastery goal orientation condition ($M = 3.37$, $SD = 1.47$, $t(168) = 7.27$, $p < .01$). These results establish the causal effects of state goal orientations on help-seeking behaviors.

6 General discussion

In this paper, we investigate why and under what conditions negative feedback influences employee learning performance through two different types of help-seeking: autonomous and dependent. Consistent with previous findings that autonomous help-seeking tends to facilitate adaptive outcomes, whereas dependent help-seeking is linked to maladaptive outcomes (Nadler, 1998; Shim et al., 2016), findings from Study 1 showed that autonomous help-seeking was positively related to supervisor-rated learning performance, whereas dependent help-seeking was negatively related to learning performance. Regarding autonomous help-seeking, findings across both Study 1 and Study 2 revealed that negative feedback was positively related to state mastery goal orientation, which in turn was positively related to autonomous help-seeking. Moreover, we found that trait mastery goal orientation moderated the effect of negative feedback on state mastery goal orientation. Employees higher in trait mastery goal orientation were more likely to respond to negative feedback with heightened state mastery goal orientation.

Turning to dependent help-seeking, we found that state performance-avoidance goal orientation was positively related to dependent help-seeking across studies. However, evidence for the relationship between negative feedback and state performance-avoidance goal orientation was less consistent. In Study 1, negative feedback was negatively related to state performance-avoidance goal orientation. By contrast, in Study 2a, negative feedback was positively related to state performance-avoidance goal orientation, as predicted. We first tested the potential curvilinear relationship between negative feedback and state performance-avoidance goal orientation, but the results were nonsignificant ($\gamma = .01$, $se = .09$, $p > .10$). We then speculated that the discrepancy between the findings of Study 1 and Study 2a might stem from differences in their temporal frames. In the field study (Study 1), employees were expected to continue performing their jobs after receiving feedback, which may lead them to focus on improving rather than avoiding performance. In contrast, the hypothetical scenario in Study 2a did not extend into the future, meaning that participants faced no ongoing performance expectations and thus had greater discretion to adopt situational performance-avoidance goals. This reasoning aligns with Anseel and Sherf's (2025) argument that temporal framing is critical for understanding the effects of negative feedback. Nevertheless, this explanation should be viewed as tentative and warrants further investigation. Across both studies, findings consistently demonstrated that trait performance-avoidance goal orientation moderated the effect of negative feedback on state performance-avoidance goal orientation. Employees higher in trait performance-avoidance goal orientation were more likely to respond to negative feedback with heightened state performance-avoidance goal orientation. These findings have important implications for both theory and practice, which we discuss below.

6.1 Theoretical implications

First, we advance the literature on negative feedback by introducing an interpersonal

behavioral mechanism to explain the controversial relationship between negative feedback and employee learning. Prior studies have reported mixed findings regarding the effects of negative feedback on learning (e.g., positive: Su et al., 2022; Xing et al., 2021; negative: Guo et al., 2024; Motro et al., 2021) and have primarily sought to resolve these inconsistencies through intrapersonal cognitive or behavioral explanations (Alam & Singh, 2021; Xing et al., 2023; Zingoni & Byron, 2017). Yet the role of interpersonal processes remains less understood, which is important because social contexts shape employees' responses to feedback and learning often occurs through social interactions (Wilhelm et al., 2019). Our findings demonstrate that employees' help-seeking behaviors play a key role in determining whether negative feedback facilitates or impedes learning. Specifically, employees may respond to negative feedback by engaging in autonomous or dependent help-seeking, which have opposing implications for subsequent learning performance. By identifying interpersonal help-seeking as a key explanatory mechanism, our study offers a new perspective on how employees learn from negative feedback and underscores the importance of seeking behaviors in the feedback–learning relationship. This interpersonal perspective also encourages future research to examine whether other forms of seeking behaviors operate in similar ways.

Second, we reveal the motivational mechanisms through which negative feedback influences employees' help-seeking behaviors. Evidence from education (Hattie & Timperley, 2007) and entrepreneurship (Lenz et al., 2021) suggests that negative feedback can motivate individuals to seek assistance for improvement, yet this process and its underlying mechanisms have received surprisingly limited attention in the workplace context. Extending this line of inquiry, our study identifies state goal orientations as a proximal mechanism linking negative feedback to distinct forms of help-seeking. In line with previous findings in AGT regarding interpersonal outcomes of different goal orientations (Brett et al., 2016;

Poortvliet et al., 2007), we find that mastery goal orientation fosters autonomous help-seeking, whereas performance-avoidance goal orientation promotes dependent help-seeking. By revealing these differential pathways, our findings clarify why employees engage in different interpersonal behaviors in response to negative feedback.

Third, we contribute to the literature on both negative feedback and AGT by investigating how employees' trait goal orientations moderate the effects of negative feedback on state goal orientations. Prior research has shown that dispositional goal orientations moderate the relationship between negative feedback and task-related outcomes (Cianci et al., 2010; He et al., 2016), yet the psychological processes driving this moderation remain unclear. Building on this foundation, we extend prior research by elucidating how such interaction occurs. Integrating a person \times situation interaction framework with AGT, we theorize and demonstrate that trait goal orientations interact with situational stimuli (i.e., negative feedback) to shape employees' state goal orientations, which subsequently guide goal-directed behaviors. In doing so, we also advance AGT by clarifying the process underlying the emergence of state goal orientations and by offering a more nuanced account of how stable traits and situational factors jointly shape situationally induced states, an issue that has long been acknowledged but rarely tested in prior research (Vandewalle et al., 2019).

6.2 Practical implications

Autonomous help-seeking driven by state mastery goal orientations facilitates learning performance, whereas dependent help-seeking driven by state performance-avoidance goal orientations hinders it. For organizations aiming to promote employee learning following negative feedback, it is therefore critical to attend to how employees seek help. Organizations should create a feedback environment that encourages mastery-oriented states in the aftermath of negative feedback. Because state goal orientations are malleable and responsive to situational cues (Payne et al., 2007), managers can play a central role in fostering such

states. Concrete practices include framing feedback as an opportunity for growth, providing explicit support for developmental efforts, and modeling learning goals through their own behavior (Bardach et al., 2020). These efforts can help employees adopt state mastery goal orientations, thereby encouraging autonomous help-seeking and ultimately enhancing learning.

Moreover, employees' dispositional goal orientations shape how they respond to negative feedback. Employees with a stronger mastery orientation were more likely to engage in autonomous help-seeking and achieve higher learning outcomes, whereas those high in performance-avoidance orientation tended to rely on dependent help-seeking, which was less conducive to learning. These findings underscore the importance of tailoring feedback delivery to individual differences in goal orientation to foster adaptive responses.

Psychometrically validated personality assessments can be used to gain a clearer understanding of employees' trait goal orientations (Vandewalle, 1997). Managers can leverage this information to align feedback delivery with individual motivational dispositions. In particular, for mastery-oriented employees, managers can emphasize challenges and growth opportunities to sustain learning motivation. For performance-avoidant employees, managers should take care to reduce elements that threaten self-esteem or signal incompetence, while emphasizing opportunities for growth and development instead, thereby helping employees shift their attention from self-protection to improvement. However, we note that such tailoring is likely most potent in hierarchical contexts (e.g., the Chinese contexts in our research), where supervisor evaluations carry significant weight. Thus, managers should apply these strategies with sensitivity to their specific organizational cultures.

6.3 Limitations and future directions

First, endogeneity cannot be fully ruled out in Study 1, as employees' reports of negative

feedback frequency may partly reflect prior performance or relational quality with supervisors. This concern is partially mitigated by features of our design. Specifically, we controlled for team tenure and positive feedback as proxies of prior standing in Study 1, and replicated our findings employing an experimental design in Study 2a, where feedback conditions were randomly assigned. Nevertheless, future research could more rigorously establish the causal effects of negative feedback and partial out potential performance or relational confounding variables. Second, in Study 1 learning performance was rated by supervisors to mitigate common method bias. However, supervisors' evaluations may reflect their attitudes toward employees rather than employees' actual learning outcomes. In particular, supervisors might view dependent help-seeking as a signal of low competence, thereby basing their evaluations on behavioral impressions rather than actual learning outcomes. Future research could incorporate more objective indicators of learning or peer evaluations to reduce potential criterion contamination. Third, explicitly instructing participants to adopt a specific goal orientation in Study 2b might have introduced demand characteristics, as participants could infer the study purpose and adjust their behaviors accordingly. Nevertheless, this approach was intentionally chosen to ensure the activation of the intended goal orientation and similar procedures have been widely employed in prior research (e.g., Ikeda et al., 2015; Senko & Harackiewicz, 2005). Moreover, the convergence of results across the two studies helps mitigate concerns about this limitation. Future research could adopt more subtle induction methods or incorporate implicit manipulation checks to further minimize such concerns. Fourth, the generalization of our findings derived from Chinese samples should be cautious because people seek social support differently in different cultures (Kim et al., 2008). Future research could enhance generalizability by taking cultural differences in how individuals seek help into account. Fifth, we examined negative feedback as a single construct without distinguishing between its constructive and destructive

forms. Prior research suggests that constructive feedback promotes growth, whereas destructive feedback leads to dysfunctional behaviors (London, 1995). Future research could build on and extend our findings by examining how different characteristics of negative feedback influence subsequent motivation, help-seeking, and learning. Finally, although we focused on employees' help-seeking from coworkers, modern technologies—particularly generative artificial intelligence (AI)—are increasingly becoming alternative sources of assistance in the workplace. Help-seeking from AI warrants special attention, as AI-generated support can be difficult to detect and may exert complex effects on organizational outcomes (Lee et al., 2023). Accordingly, a promising direction for future research is to explore how employees seek help from AI technologies following negative feedback and how such help-seeking behaviors influence subsequent learning outcomes.

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Tables

Table 1 Descriptive statistics, correlations, and reliabilities (Study 1)

Variables	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1 Gender ^a	1.49	.50																			
2 Age ^b	30.20	6.80	.08																		
3 Education ^c	3.29	.90	.11	.21**																	
4 Team tenure ^d	3.28	4.03	.07	.65**	.03																
5 Agreeableness	3.98	.62	.11	.22**	.10	.26**	(.83)														
6 Conscientiousness	4.28	.61	.06	.16*	-.02	.23**	.71**	(.86)													
7 Extraversion	3.81	.66	-.05	-.08	-.15*	.02	.54**	.50**	(.76)												
8 Openness	3.84	.68	-.04	.14*	.01	.24**	.67**	.56**	.65**	(.81)											
9 Emotional stability	3.58	.77	.11	.10	-.08	.15*	.56**	.41**	.47**	.44**	(.84)										
10 Positive feedback	3.61	.71	-.19**	-.02	.01	.02	.17*	.10	.26**	.17**	.14*	(.81)									
11 Negative feedback	4.25	.69	-.13*	-.14*	-.13*	-.01	.13	.08	.17**	.17**	.12	.30**	(.85)								
12 Trait mastery goal orientation	4.16	1.11	-.01	.08	.03	.08	.14*	.09	.12	.17**	.11	.11	.33**	(.97)							
13 Trait performance-avoidance goal orientation	3.39	1.21	.04	-.01	.03	-.02	-.13*	-.09	-.07	-.07	-.13*	-.01	.00	-.08	(.91)						
14 State mastery goal orientation	4.07	.66	.05	.15*	-.05	.23**	.14*	.22**	.10	.24**	.16*	.02	.22**	.59**	-.09	(.86)					
15 State performance-avoidance goal orientation	3.12	.79	.00	.02	.10	-.03	-.20**	-.20**	-.18**	-.09	-.23**	-.14*	-.17**	-.10	.48**	-.07	(.74)				
16 State performance-approach goal orientation	3.97	.69	.06	.15*	.01	.19**	.04	.13*	.06	.15*	.12	.00	.15*	.36**	.13	.63**	.20**	(.80)			
17 Autonomous help-seeking	3.90	.39	.05	.02	.10	.06	.02	.06	-.07	.07	-.01	-.07	-.01	.19**	-.02	.34**	.15*	.38**	(.73)		
18 Dependent help-seeking	2.44	.97	-.05	-.06	-.14*	-.11	-.12	-.17**	-.03	-.05	-.15*	-.12	-.04	-.12	.20**	-.18**	.35**	-.09	-.15*	(.82)	
19 Learning performance	3.89	.79	.02	.15*	.20**	.05	.08	.11	-.05	.10	.05	-.02	-.08	.11	-.05	.13*	.02	.13*	.25**	-.38**	(.94)

Note: $N = 239$. ^a 1 = male, 2 = female; ^{b, d} in years; ^c 1 = middle school or below, 2 = high school / secondary school, 3 = college, 4 = university, 5 = postgraduate. Cronbach's alphas are presented in parentheses on the diagonal.

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

Table 2 Results of random coefficient modeling analyses (Study 1)

Variables	State mastery goal orientation		State performance-avoidance goal orientation		Autonomous help-seeking		Dependent help-seeking		Learning performance	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
Gender	.08 (.09)	.06 (.07)	-.02 (.08)	-.07 (.07)	.02 (.05)	.00 (.05)	-.07 (.15)	-.04 (.14)	-.04 (.10)	-.05 (.10)
Age	.00 (.01)	-.00 (.01)	.01 (.01)	.01 (.01)	-.00 (.01)	-.00 (.00)	.01 (.01)	.01 (.01)	.01 (.01)	.02 (.01)
Education	-.03 (.04)	-.02 (.04)	.03 (.05)	.03 (.05)	.04 [†] (.02)	.04 [†] (.02)	-.20** (.07)	-.23** (.07)	.13* (.06)	.05 (.06)
Team tenure	.02 [†] (.01)	.03** (.01)	-.01 (.01)	-.02 (.01)	.00 (.01)	-.00 (.01)	-.03 (.02)	-.02 (.02)	-.01 (.02)	-.02 (.02)
Agreeableness	-.25** (.09)	-.24** (.09)	-.13 (.15)	-.08 (.13)	-.07 (.05)	.01 (.06)	.15 (.16)	.12 (.13)	-.13 (.13)	-.03 (.12)
Conscientiousness	.21* (.09)	.21** (.07)	-.17 [†] (.10)	-.14 (.10)	.07 (.05)	.03 (.05)	-.36* (.15)	-.24* (.12)	.17 [†] (.10)	.08 (.08)
Extraversion	-.10 (.09)	-.10 (.07)	.01 (.10)	-.01 (.08)	-.08 (.08)	-.07 (.07)	.08 (.11)	.08 (.10)	-.16 (.12)	-.12 (.11)
Openness	.22* (.09)	.18** (.06)	.12 (.10)	.13 (.09)	.08 [†] (.05)	.04 (.05)	.11 (.11)	.10 (.10)	.09 (.10)	.08 (.10)
Emotional stability	.09 (.07)	.08 (.07)	-.10 (.08)	-.06 (.07)	.02 (.04)	-.00 (.04)	-.21* (.10)	-.12 (.09)	.10 (.09)	.03 (.07)
Positive feedback	-.02 (.06)	-.03 (.05)	-.10 (.08)	-.11 (.06)	.01 (.03)	.02 (.02)	-.19* (.09)	-.15 [†] (.09)	.01 (.07)	-.04 (.06)
Negative feedback	.13 [†] (.05)	.04 (.05)	-.17* (.08)	-.16* (.07)	-.02 (.05)	-.04 (.05)	-.09 (.11)	.02 (.11)	.06 (.09)	.04 (.09)
State mastery goal orientation						.12 [†] (.06)		-.16 (.11)		-.02 (.10)
State performance-approach goal orientation						.13** (.05)		-.14 (.12)		.03 (.08)
State performance-avoidance goal orientation						.04 (.03)		.43** (.08)		.12 (.09)
Autonomous help-seeking										.30* (.12)
Dependent help-seeking										-.33** (.07)
Trait mastery goal orientation		.38** (.04)								
Trait performance-avoidance goal orientation				.26** (.05)						
Negative feedback × Trait mastery goal orientation		.11** (.04)								
Negative feedback × Trait performance-avoidance goal orientation				.23* (.09)						
Individual-level variance σ^2	.38	.25	.50	.38	.14	.12	.84	.72	.49	.38
Change in variance $\Delta\sigma^2$.13		.12		.02		.12		.11
R^2		.34		.24		.13		.14		.22

Note: $N = 239$. Values in parentheses are standard errors.

$^{\dagger} p < .10$, $* p < .05$, $** p < .01$.

Figures

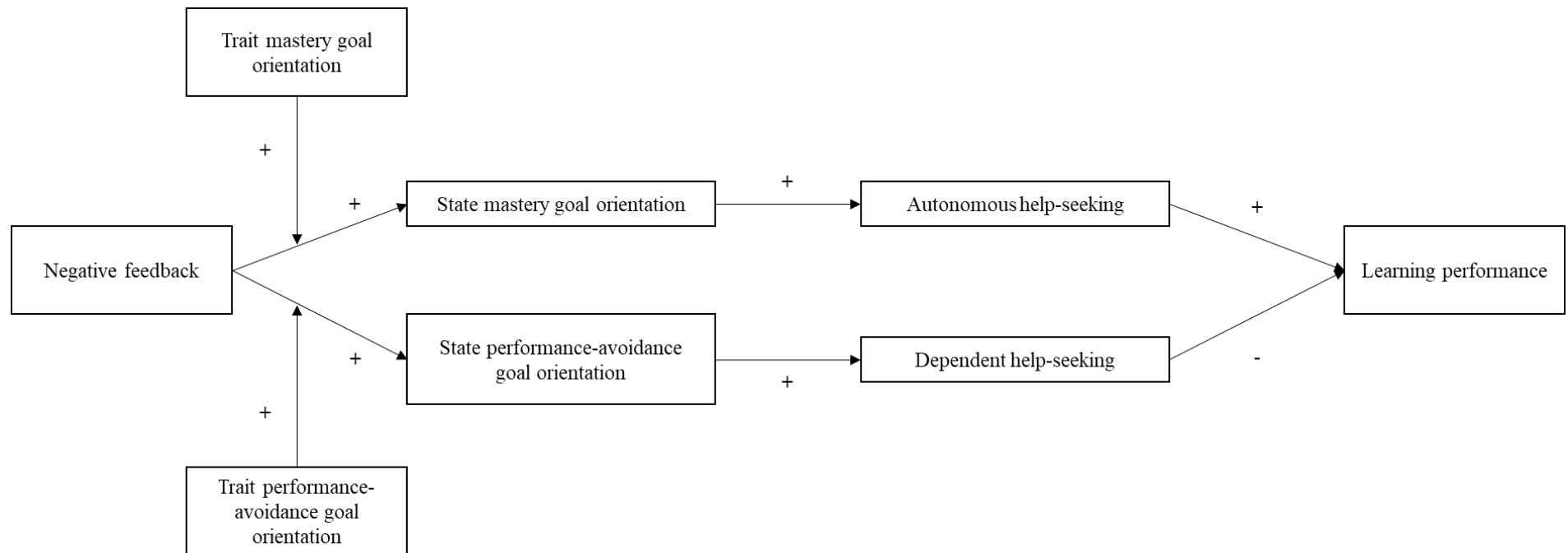


Figure 1. The theoretical model

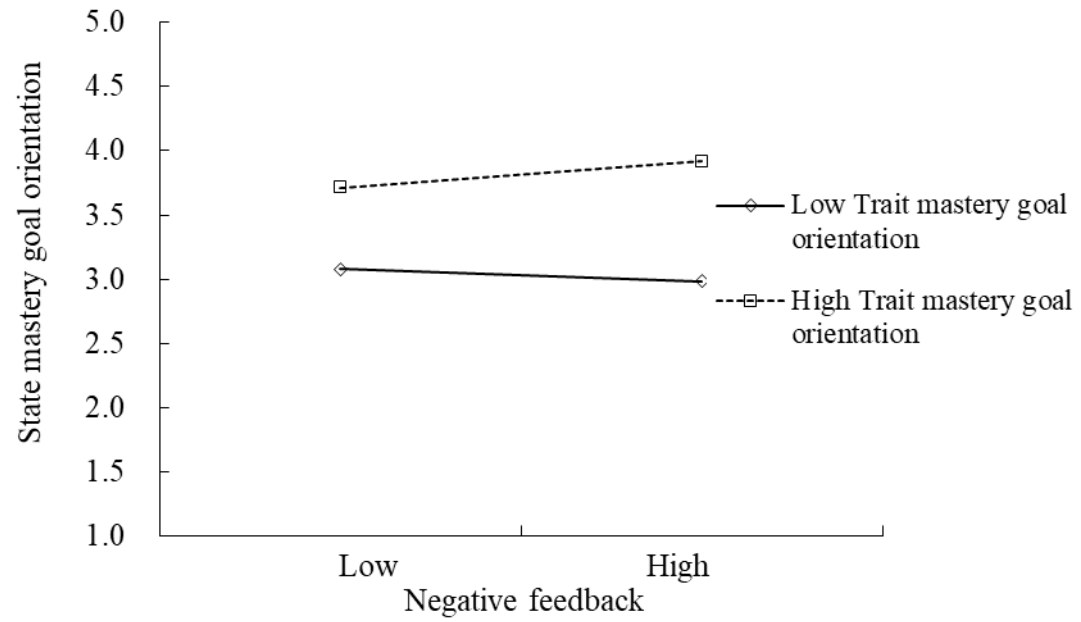


Figure 2. Simple slope for the interaction effect of negative feedback and trait mastery goal orientation on state mastery goal orientation (Study 1)

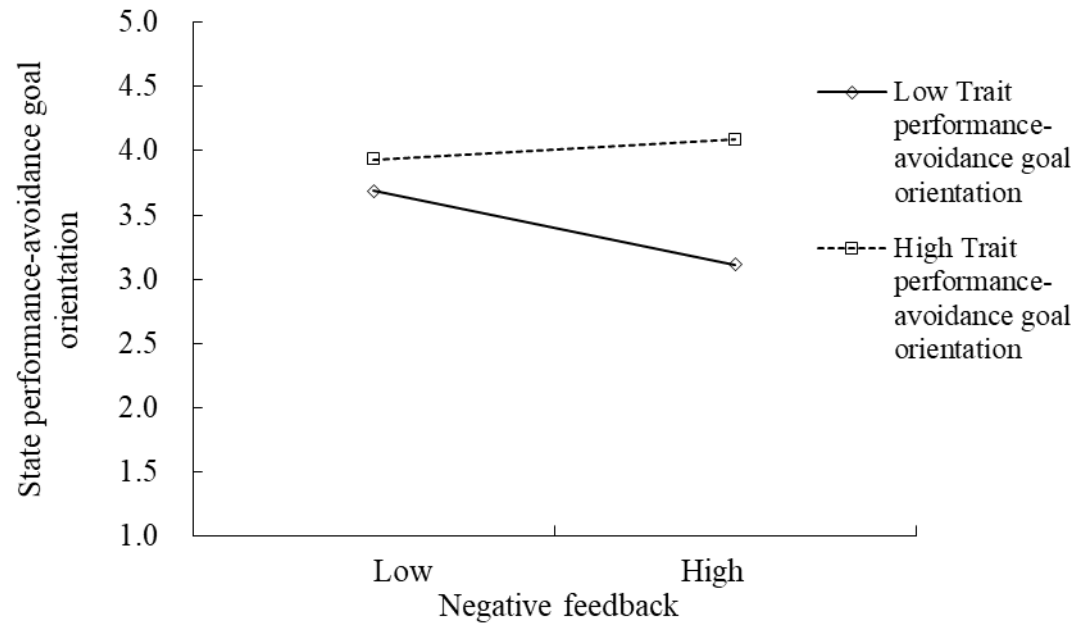


Figure 3. Simple slope for the interaction effect of negative feedback and trait performance-avoidance goal orientation on state performance-avoidance goal orientation (Study 1)

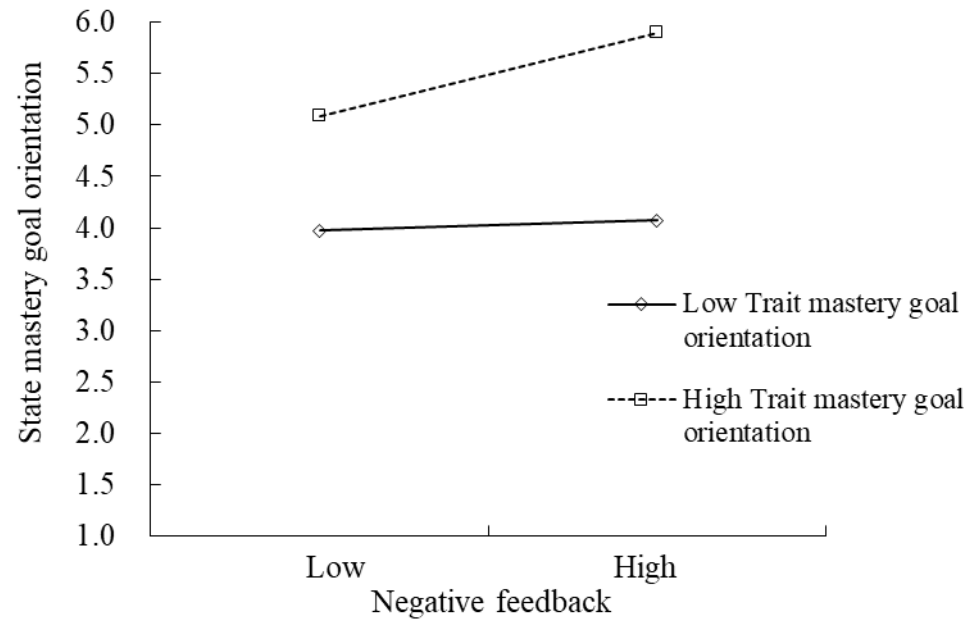


Figure 4. Simple slope for the interaction effect of negative feedback and trait mastery goal orientation on state mastery goal orientation (Study 2a)

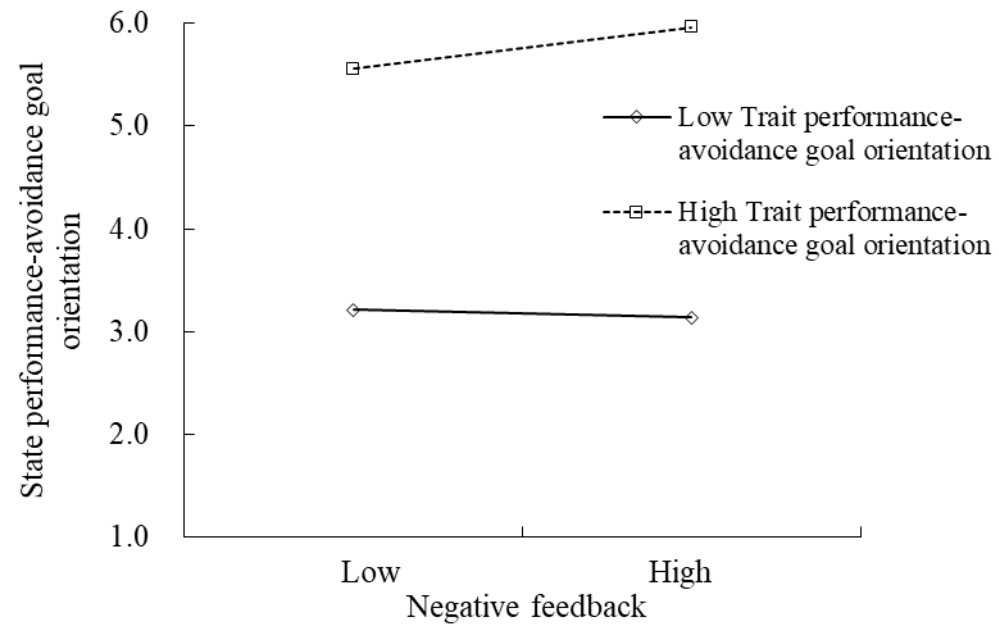


Figure 5. Simple slope for the interaction effect of negative feedback and trait performance-avoidance goal orientation on state performance-avoidance goal orientation (Study 2a)