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*Article*

# When We Thrive, How Will We Behave? A Meta-Analysis of Thriving and Work Behaviors Across Countries and Gender

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**Abstract**

This meta-analysis examines how cultural settings and gender roles moderate the behavioral outcomes of employee thriving at work. Drawing on 98 studies (total sample size, N = 35,756) from eight countries, we find that thriving promotes innovation, voice, organizational citizenship behavior (OCB), crafting, and proactive and career behaviors. Collective-oriented behavior was reinforced in Eastern collectivist cultures, whereas no significant cross-cultural differences were observed for individual-oriented behaviors.With respect to gender, thriving more strongly influences women's crafting behavior but has weaker effects on their OCB and proactive behavior than on men's. These findings offer insights for cross-cultural management and gender-inclusive organizational policies.

**Keywords:** thriving at work; work behavior; meta-analysis; gender difference; national culture
**JEL:** D23, J24, J16

## 1. Introduction

Thriving at work is a concept that has garnered significant attention in the field of organizational studies. It is defined as a psychological state characterized by the combined experience of vitality and learning (Spreitzer et al., 2005). Vitality is characterized by a sense of positive energy and a feeling of being fully alive (Nix et al., 1999), and learning refers to the continuous process of acquiring and applying new knowledge and skills within a professional context (Dweck, 1986; Elliott and Dweck, 1988). A substantial body of research has been conducted to explore the impact of thriving at work within organizational settings. The current research is grounded in the socially embedded model of thriving (Spreitzer et al., 2005), which has been further expanded through the lens of self-determination theory (Spreitzer and Porath, 2014). Empirical evidence indicates that workplace situational factors can foster a thriving environment, thereby enhancing individual performance, adaptability, and overall well-being. Additionally, thriving can be supported by self-determination, which includes a sense of autonomy, competence, and relatedness (Liu et al., 2021).

Although previous studies have made important contributions, the precise mechanisms linking workplace thriving to subsequent work behaviors remain inadequately delineated and need to be investigated further. The meta-analysis by Kleine et al. (2019) synthesized the effects of thriving on various outcomes, including employee health, attitudes, and performance. However, the links between employee thriving and subsequent work behaviors have not been fully examined. Thus, the specific behavioral manifestations of thriving remain unclear. Furthermore, potential variations across national cultures and gender groups are not yet understood. The considerable heterogeneity in effect sizes observed across primary studies (Kleine et al., 2019) further highlights the need for a comprehensive meta-analysis to clarify these relationships. A meta-analytic approach would not only provide a more precise estimate of the relationship between thriving and work behaviors but could also identify key moderators and boundary conditions. Such an analysis would, in turn, enhance the theoretical understanding and provide valuable insights for the development of interventions aimed at fostering positive work behaviors and improving organizational effectiveness.

Although previous research has confirmed the positive effects of thriving at work on employee health, attitudes, and performance (Kleine et al., 2019), two key questions remain. First, the pathways through which thriving at work translates into specific work behaviors remain scattered across studies. Second, the boundary conditions that shape these mechanisms, particularly broader national cultural contexts (Hofstede, 2001) and gender-based social roles (Eagly, 1987), have received limited attention. The socially embedded model of thriving posits that the immediate social environment shapes an individual's thriving, which in turn influences their behavior and performance (Spreitzer et al., 2005). Although research has extensively examined the influence of organizational context, the role of broader national cultural systems has not been adequately explored. For example, collectivist cultures (such as those of China and South Korea) emphasize group harmony and interdependence, whereas individualist cultures

(such as those of the United States and the United Kingdom) may channel energy from thriving more toward the pursuit of individual goals. Since national culture can influence the very nature and expression of thriving at work (Rozkwitalska, 2018), further investigation into these cross-cultural dynamics is warranted.

Similarly, differences in social roles can profoundly influence behavioral responses to thriving. For example, women with significant family roles (Greenhaus and Allen, 2011) may adapt their expression of thriving at work, whereas men often demonstrate commitment through direct organizational engagement (Eagly and Karau, 2002). Research indicates that compared with men, women often report greater satisfaction with self-regulation needs (Greenhaus and Allen, 2011). Women tend to exhibit stronger self-determination, including intrinsic motivation for stimulation, identified regulation, and introjected regulation, whereas men report higher levels of amotivation. This pattern suggests that women may be more driven by internal factors, potentially reflecting a stronger sense of autonomy and competence. These gender-based differences in self-determination manifest as distinct psychological experiences and behavioral responses in the workplace. Consequently, these differences highlight that gender is a significant moderator of the relationship between thriving and subsequent work behaviors. Therefore, to fully understand the mechanisms linking thriving to work behaviors, these gender-specific dynamics must be explored.

On the basis of self-determination theory (SDT), it can be seen that thriving at work satisfies three types of psychological needs that influence behavior (Deci and Ryan, 2000). Importantly, these three factors may influence the types of behaviors affected by thriving at work. The satisfaction of autonomy needs enables employees to reshape tasks or proactively plan their careers; competence needs stimulate innovation and proactive problem solving by enhancing self-efficacy; and relatedness needs drive collective-oriented behavior—for example, employees who are closely connected to the organization are more likely to offer suggestions or exhibit organizational citizenship behavior. However, the weighting of these needs on behavior may vary across cultures. From a cultural perspective, cultural norms influence the expression of psychological needs. In Eastern collectivist cultures, the fulfillment of relational needs is more likely to manifest through organizational citizenship behavior (OCB) and voice behavior, as these actions contribute to maintaining group harmony (Liu, 1998). In Western individualist cultures, the fulfillment of autonomy needs is more likely to manifest as career behavior or innovative behavior, as these behaviors encourage individual goal prioritization. From a gender perspective, social role theory (Eagly, 1987) suggests that women are more likely to channel their vitality into "care-oriented" behaviors (such as job crafting), whereas men are more likely to exhibit "tool-oriented" behaviors (such as proactive behaviors or career behaviors). Additionally, women, who often face more family role conflicts, may suppress the expression of their OCB and proactive behaviors (Greenhaus et al., 2012).

In this meta-analysis, we conduct a comprehensive examination of the relationships between thriving at work and a spectrum of six distinct work behaviors identified in the literature: innovative behavior, voice behavior, organizational citizenship behavior, crafting behavior, proactive behavior, and career behavior. We acknowledge that thriving at work could affect these behaviors to varying extents. The focus is on elucidating the relationship between thriving and various work behaviors by examining possible moderating variables. Specifically, we assess the influence of national culture, distinguishing between Eastern and Western contexts and between female and male samples. Understanding these contextual factors is crucial for organizations to tailor their management strategies effectively and to maximize the positive outcomes of thriving at work.

This meta-analytical review attempts to make three contributions to the literature. First, this research expands the theoretical model of the effects of thriving at work. We use meta-analytic techniques to establish the nomological network and effect sizes between thriving and work behaviors. Second, we compare the difference in Eastern and Western culture's impact on this relationship. It extends the socially embedded model of thriving and offers practical enlightenment for managing thriving employees in different cultural contexts. Third, we enrich the gender perspective of research on thriving at work. We analyze the gender difference in the behaviors of thriving employees. It offers insights into advancing gender equality and enhancing work performance.

## 2. Theory and Hypotheses

To integrate these diverse theoretical perspectives into a coherent framework, we position social embeddedness theory (Spreitzer et al., 2005) as the overarching macrolevel foundation. This theory emphasizes that thriving is not an isolated psychological state but is profoundly shaped by the broader environment, including organizational structures and, importantly, the national cultural context (Liu et al., 2021). We contend that national culture, as conceptualized by Hofstede's cultural dimensions theory (Hofstede, 2001), constitutes a critical layer of this embedded environment. It functions as a key moderator that influences which psychological needs—when satisfied through thriving—are most likely to be expressed and reinforced through behavior (Triandis, 2018). For example, collectivist cultures may accentuate behaviors stemming from relatedness needs (e.g., organizational citizenship behavior), whereas individualistic cultures may promote those arising from autonomy (e.g., career behavior).

Within this culturally embedded context, self-determination theory (SDT; Deci and Ryan, 2000) provides

a core microlevel mechanism explaining how thriving leads to varied work behaviors. Thriving, which is characterized by vitality and learning, fulfills the three basic psychological needs proposed by SDT: autonomy, competence, and relatedness. The satisfaction of these needs subsequently energizes and directs individuals toward specific behavioral pathways (e.g., autonomy facilitates career behavior; relatedness promotes organizational citizenship behavior).

Finally, social role theory (Eagly, 1987) introduces an essential individual-level boundary condition that operates in conjunction with cultural influences. This perspective asserts that, even within similar cultural settings, individuals' behavioral expressions of thriving are further guided by gender-based role expectations and differential resource allocation strategies. For instance, women—who often encounter greater family–work conflicts (Greenhaus et al., 2012)—may leverage thriving to cultivate personal resources through job crafting (a behavior driven by competence and autonomy). In contrast, men may use thriving to signal commitment to the organization through organizational citizenship behavior (a behavior often motivated by relatedness).

In summary, as shown in Fig. 1, our integrated model proposes that (a) the macrocultural environment (as per Hofstede) establishes normative expectations that privilege certain behaviors; (b) the micropsychological mechanism (as per SDT) explains the motivational energy and directional pathways through which thriving operates; and (c) individual-level role expectations (as per social role theory) further refine how individuals strategically deploy their psychological resources. The present meta-analysis examines this integrative model by testing both the direct relationships between thriving and work behaviors and the proposed moderating effects of culture and gender.

### *2.1 Thriving at Work and Innovative Behavior*

Thriving at work is a significant catalyst for innovative behavior. Vitality provides the affective foundation for employee innovation, whereas learning constitutes the cognitive foundation (Carmeli and Spreitzer, 2009). Innovative employees generate valuable novel ideas or develop valuable products by leveraging organizational resources along with their own knowledge and abilities (Wu and Shi, 2007). On the one hand, individuals who thrive at work possess high levels of vitality, which enables them to bring greater energy to their tasks. Employees with sufficient vitality can mitigate the energy depletion typically associated with problem solving during the innovation process (Wang, 2024; Yang et al., 2019). On the other hand, thriving employees tend to exhibit stronger desires and motivations for learning and broadening their perspectives. As a result, they are more likely to identify potential challenges and opportunities within the organization and subsequently generate innovative ideas. According to SDT, thriving promotes innovation through two primary pathways: autonomy provides employees with the freedom to explore unconventional methods (Scott and Bruce, 1994), and competence equips them with the knowledge needed to solve complex problems (Bandura, 2001). Together, these factors allow thriving employees to transcend their cognitive limitations and transform novel ideas into feasible solutions (Carmeli and Spreitzer, 2009). On the basis of this reasoning, we propose the following hypothesis:

Hypothesis 1: Thriving at work is positively related to innovative behavior.

### *2.2 Thriving at Work and Voice Behavior*

Thriving at work is expected to predict voice behaviors, as it implies feeling progress and momentum at what one does and establishing enrichment in one's talent reservoir (Koçak and Agun, 2019). The emergence of voice behavior requires employees to be in a specific state (Duan, 2011). Individuals with positive emotions can better control their emotions (May et al., 2004), weigh the pros and cons of voice behavior more rationally, and make correct decisions that are more in line with the interests of the organization and individuals. Employees who thrive at work have better emotional and psychological resources. Therefore, they have more energy to address the challenges and risks associated with voice (Sheng and Zhou, 2021) and have better motivation for voice behavior. SDT reveals that thriving at work provides psychological security for advice-giving behavior. On the one hand, the sense of relatedness resulting from thriving at work enhances organizational identification and reduces the perceived risk of giving advice (May et al., 2004). On the other hand, the competence enhanced by thriving at work improves employees' problem-diagnosis abilities and ensures the value of their suggestions (LePine and Van Dyne, 1998). Therefore, thriving employees are more likely to speak up strategically to improve the organization (Sheng and Zhou, 2021). On the basis of the above, we propose the following hypothesis:

Hypothesis 2: Thriving at work is positively related to voice behavior.

### *2.3 Thriving at Work and Organizational Citizenship Behavior*

Individuals who experience more thriving engage in more OCB (Spreitzer and Porath, 2014). Those who thrive are generally more intrinsically motivated. Employees with high vitality not only complete their own tasks effectively but also are more willing to proactively assume extrarole responsibilities. Furthermore, individuals who thrive tend to view such out-of-role tasks as opportunities for learning and development (Chu and Zhang, 2021). As thriving employees are often engaged in continuous learning and growth, they exhibit greater readiness and willingness to take on duties beyond their core job descriptions. From the perspective of SDT, OCB can be explained through the fulfillment of psychological needs: relatedness fosters a will-

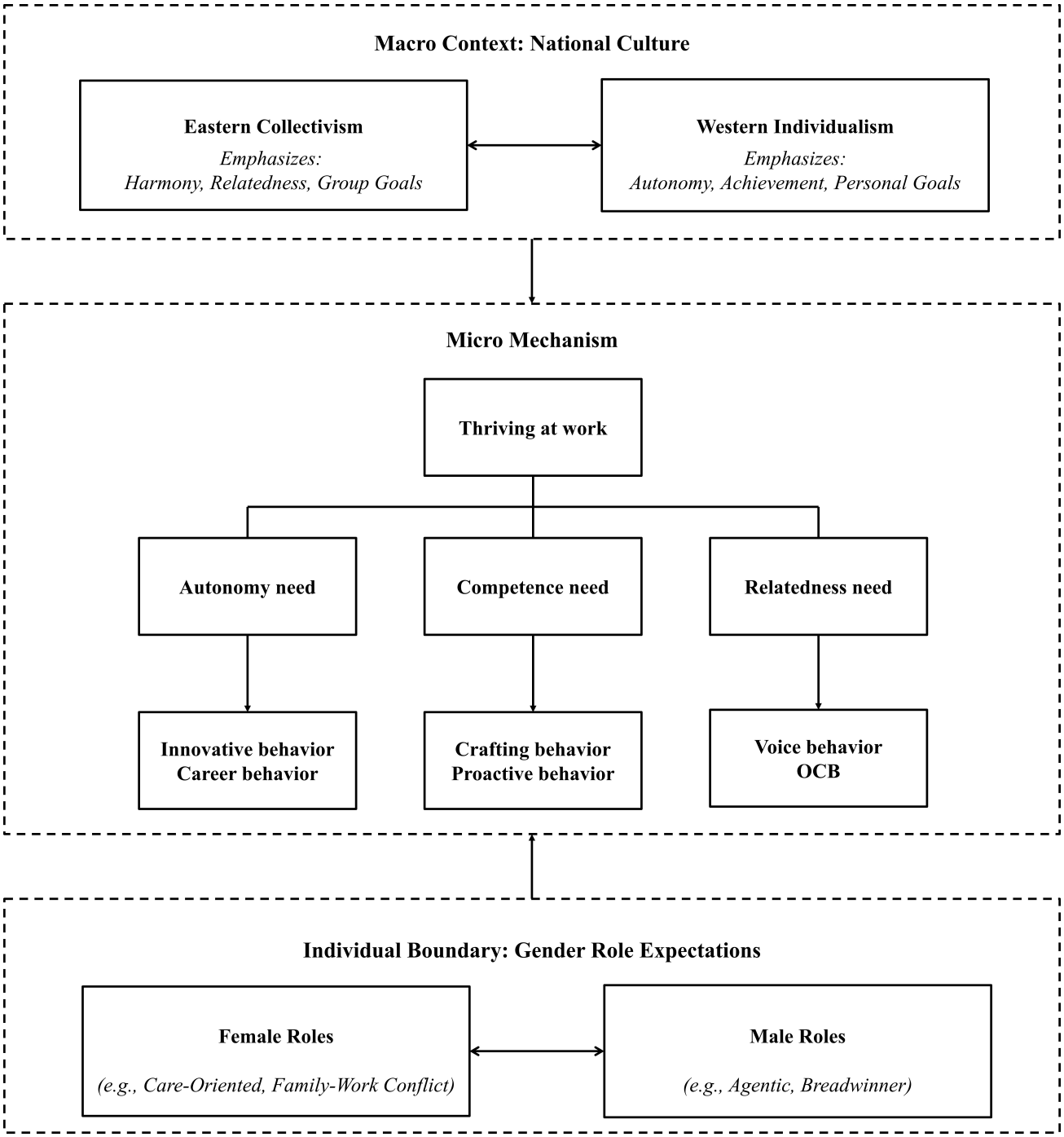


**Fig. 1. The integrated theoretical framework**. OCB, organizational citizenship behavior.

ingness to support the organization (Bateman and Organ, 1983), whereas autonomy encourages voluntary extrarole effort (Abid et al., 2018). Thriving at work strengthens these psychological mechanisms, thereby promoting OCB as conscious behavior aimed at sustaining organizational harmony (Spreitzer and Porath, 2014). On the basis of this reasoning, we propose the following hypothesis:

Hypothesis 3: Thriving at work is positively related to organizational citizenship behavior.

### *2.4 Thriving at Work and Crafting Behavior*

Job crafting refers to the physical and cognitive changes that individuals make in the task or relational boundaries of their work (Wrzesniewski and Dutton, 2001). Individuals who thrive at work tend to hold more positive perceptions of their job tasks. The high level of vitality characteristic of thriving employees leads to more active engagement in their work, which facilitates positive changes in work-related cognition (Rudolph et al., 2017) and enhances their experience of meaning and satisfaction derived

from job tasks. Moreover, employees who thrive possess richer resource reservoirs for undertaking work tasks. Their strong learning orientation ensures that they acquire sufficient knowledge and skills to proactively design and reshape their roles (Qi et al., 2019). Moreover, thriving individuals often exhibit greater self-efficacy and stronger motivation to adjust their work in response to changes in the external environment (Tims et al., 2014). Job crafting can be viewed as an expression of autonomy, driving employees to redefine their task boundaries (Wrzesniewski and Dutton, 2001), while competence provides the necessary skills to implement these adjustments effectively (Tims et al., 2014). Thriving at work strengthens both autonomy and competence, thereby enabling employees to proactively improve their person–job fit (Rudolph et al., 2017). On the basis of this reasoning, we propose the following hypothesis:

Hypothesis 4: Thriving at work is positively related to job crafting behavior.

### *2.5 Thriving at Work and Proactive Behavior*

Thriving at work can increase employees' willingness and ability to engage in proactive behavior. Thriving employees have more ability and passion and are more willing to implement proactive behavior to obtain more valuable organizational resources (Hu et al., 2023). In addition, the two dimensions of thriving at work, vitality and learning, are themselves two beneficial resources (Hildenbrand et al., 2018) that can help employees implement proactive behavior. Employees with a high level of vitality have more energy and passion to address challenges in implementing proactive behaviors and actively communicate with others for help. Employees with learning experience are more confident in engaging in proactive behavior (Jiang et al., 2021). SDT explains the forward-looking motivation behind proactive behavior, whereby thriving at work increases competence and autonomy by improving the ability to anticipate problems (McCormick et al., 2019) and by motivating people to take action in advance (Hu et al., 2023). As a result, employees who thrive at work are more likely to plan ahead than react passively (Parker and Collins, 2010). On the basis of the above, we propose the following hypothesis:

Hypothesis 5: Thriving at work is positively related to proactive behavior.

### *2.6 Thriving at Work and Career Behavior*

Thriving at work energizes employees to learn and grow in their careers (Porath et al., 2012). The career self-management model suggests that learning experience is the key source of efficacy information and outcome expectations that drive individuals to further progress in their careers (Lent and Brown, 2013). On this basis, thriving, reflective of vigorous learning, may foster signs of efficacy and outcome expectations (Jiang et al., 2020) and further encourage individuals to engage in career management behavior. Moreover, employees who are thriving at work constantly update their knowledge and skills to better facilitate their self-development (Paterson et al., 2014). Thriving employees with high vitality believe in their own energetic persistence in managing difficult career situations (Jiang et al., 2020). Thus, thriving employees are less susceptible to burnout and more likely to take an active role in developing a successful career path (Porath et al., 2012) and engaging in positive career behavior. Career behavior depends on the long-term integration of self-determination resources. Thriving at work gives employees autonomy and competence, which supports their career self-planning (Lent and Brown, 2013) and provides them with the confidence to cope with career challenges (Jiang et al., 2020). This enables employees who thrive at work to actively manage their career trajectories (Porath et al., 2012). On the basis of the above, we propose the following hypothesis:

Hypothesis 6: Thriving at work is positively related to career behavior.

### *2.7 Moderating Effects of National Culture and Gender*

According to the social embeddedness theory of thriving, the essence of thriving at work is adaptation to the external environment. Therefore, external environmental factors play important roles in the formation of thriving at work. As an important environmental factor, national culture has attracted our attention. The cultural differences between the East and West are multifaceted and deeply rooted in their respective histories, philosophies, and social structures. Eastern cultures, often influenced by Confucianism, Taoism, and Buddhism, emphasize the importance of harmony, collective well-being, and respect for authority and tradition. These societies tend to prioritize group goals over individual desires and foster a sense of interdependence among community members. In contrast, Western cultures, particularly those influenced by the Enlightenment and democratic ideals, strongly emphasize individualism, personal freedom, and the pursuit of self-fulfillment. Western societies often encourage the open expression of ideas, competition, and the questioning of authority (Liu, 1998; Luo, 2000). These differences may lead to different behaviors under thriving. According to Hofstede's (2001) cultural dimensions theory, there are systematic differences between Eastern and Western cultures along the individualism–collectivism dimension: Eastern cultures (such as China and South Korea) exhibit high collectivism (individualism index, IDV <40) and high power distance (power distance index, PDI >50), whereas Western cultures (such as the United States and Australia) exhibit high individualism (IDV >60). This cultural difference reinforces the impact of thriving at work on specific behaviors through two mechanisms. On the one hand, collective interdependence in Eastern cultures enhances altruistic behaviors driven by relatedness (such as OCB and voice behaviors), and employees are more willing to repay the organization for its support (Triandis, 2018). On the other hand, the high power

distance in Eastern cultures leads to strict hierarchical relationships, which makes it difficult for employees to exercise their self-motivation. In addition, Eastern culture emphasizes obedience to norms and tends to devalue individual-oriented behaviors. Therefore, innovative behavior, crafting behavior, career behavior, and proactive behavior may be inhibited. On the basis of the above, we propose the following hypothesis:

Hypothesis 7a: Thriving at work has a stronger positive effect on collective-oriented behaviors (voice behavior and OCB) in Eastern cultures than in Western cultures.

Hypothesis 7b: Thriving at work has a weaker positive effect on individual-oriented behaviors (innovative, crafting, career, and proactive behaviors) in Eastern cultures than in Western cultures.

Gender roles have a significant effect on the actions individuals choose to take within a specific environment (Eagly, 1987). In our research, we hypothesize that gender dynamics could influence the connection between personal thriving at work and work-related conduct. The evolving status of women in the context of modernization has led to a greater acquisition of social resources, including educational opportunities, career advancement, and involvement in social decision-making and management. These developments have progressively heightened women's awareness of their societal gender roles and behavior differently in terms of their thriving status (Wu, 2014). According to social role theory (Eagly, 1987), gender role expectations lead to differences in resource allocation. Females prioritize investing resources for thriving at work in "core developmental behaviors" (such as job crafting, career planning, and innovation), as this directly enhances career capital (Rudolph et al., 2017). Males, on the other hand, use thriving at work more to display "signals of organizational commitment" (such as OCB, voice behavior, proactive behavior) to reinforce leadership evaluations (Kidder and Parks, 2001). This differentiation stems from the following: Women face family–work conflicts and must focus on high-performance behaviors (Grandey and Krannitz, 2016), whereas men use OCB to signal loyalty in competitive environments (Luksyte et al., 2018). On the basis of the above, we propose the following hypothesis:

Hypothesis 8a: Compared with thriving male employees, thriving female employees exhibit higher levels of job crafting, innovative behavior, and voice behavior.

Hypothesis 8b: Compared with thriving female employees, thriving male employees exhibit higher levels of OCB, proactive behavior, and career behavior.

## 3. Method

### *3.1 Literature Search*

A comprehensive search strategy was employed to ensure that all relevant studies were included. Given the date on which the concept of "thriving at work" was first formally proposed (Spreitzer et al., 2005), the search start date was set to January 2005. Articles published in databases, journals, and conferences from 2005 to May 2024 in both English and Chinese were identified using a set of predefined search terms, including "thriving at work", "thriving", "work thriving", and "thrive". To avoid omissions, we used truncation symbols (*) and synonym expansion. All keywords were independently verified by two researchers, and any discrepancies were resolved through discussion. If no consensus could be reached through discussion, a third researcher was invited to participate in the decision-making process.

The initial search was conducted across seven electronic databases, namely, Web of Science, Google Scholar, China National Knowledge Infrastructure (CNKI), EBSCOhost, Scopus, American Psychological Association (APA) PsycINFO and ProQuest. These databases were selected for their comprehensive coverage of academic literature in both English and Chinese. Furthermore, we conducted a comparative analysis of the references cited in high-impact literature reviews, such as that of Goh et al. (2022). Second, we conducted a search of the most prominent journals in the fields of psychology and management, including the Journal of Organizational Behavior, the Journal of Applied Psychology, the Journal of Vocational Behavior, and Human Resource Management. Third, we conducted a search for articles presented at major management academic conferences, including the Academy of Management and the International Association of Chinese Management Research. Finally, we contacted scholars who had published in the field of thriving at work, requesting unpublished manuscripts, raw data, or other information for the meta-analysis. A comprehensive search was conducted for relevant studies in both Chinese and English, and the search was concluded in May 2024. A total of 1171 articles were collected.

### *3.2 Inclusion Criteria*

For a study to be included in this meta-analysis, it had to meet the following screening criteria. First, each study had to be empirical and report the correlation coefficient between thriving at work and work behavior. Second, the variables involved in the study had to be the core variables hypothesized in this paper. Studies that did not address the relationship between thriving at work and six types of work behavior were excluded. Third, thriving at work is an antecedent variable in the study. Studies in which thriving at work was the outcome variable were excluded from our meta-analysis. Fourth, studies had to use scales designed to measure thriving at work. Studies that used other alternatives (e.g., the Work Initiative Scale) were excluded. After excluding noncompliant articles in accordance with the above criteria, we proposed 98 studies for inclusion in this meta-analysis. The references included in this meta-analysis are uploaded as online supplementary material (https://osf.io/veb27/). The study selection

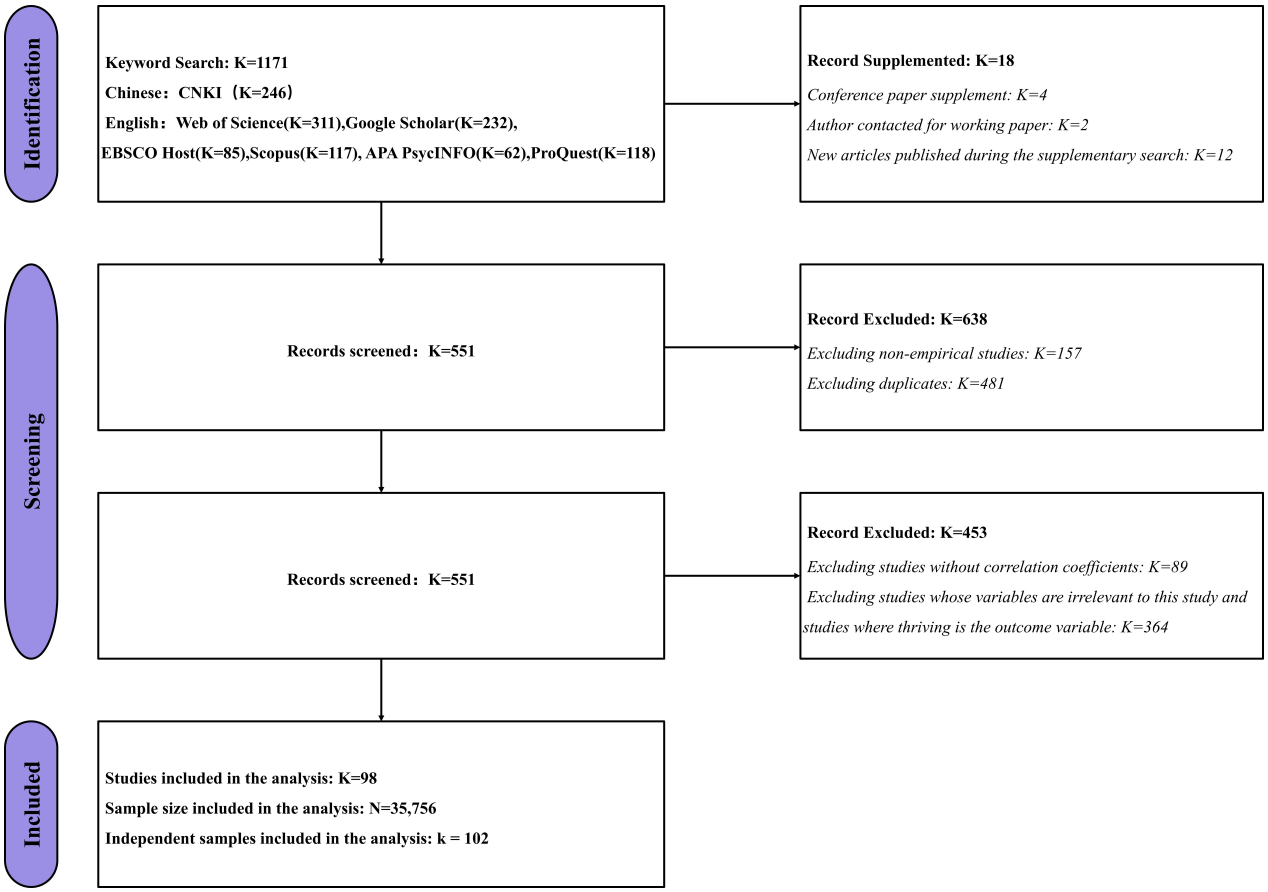


**Fig. 2. Outline of the literature search process**. K, number of studies; N, sample size.

process, which followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines, is illustrated in Fig. 2. The figure details the number of records identified, included, and excluded at each stage, with reasons for exclusion explicitly provided.

### *3.3 Small Sample Robustness Protocol*

To address the robustness challenges posed by small sample sizes (k <5), we took the following measures. On the one hand, we used Hunter and Schmidt's (2004) correction method for small sample effect sizes to correct $\rho$ and calculated the confidence interval after bias correction using bootstrap resampling. The correction adjusts for potential overestimation when the number of independent samples is small. On the other hand, we used leave-one-out sensitivity analysis to test the stability index (SI) by sequentially removing samples (Viechtbauer, 2010). SI reflects the degree of fluctuation in the effect size after deleting a single study; a value greater than 15% indicates high volatility.

### *3.4 Coding Procedures*

First, we tested the validity of the coding form through precoding. After the coding form was refined, the research team conducted formal coding. Second, we extracted basic information (e.g., sample size, sample source country, sample gender and age, etc.) and key information (e.g., correlation coefficients, scale reliability coefficients, etc.) from the articles. All the articles included in this meta-analysis reported correlation coefficients. For missing reliability coefficients, we filled in by calculating the weighted average of the remaining sample reliabilities. For the samples that reported effect values for only the two subdimensions of thriving at work, vitality and learning, individually, we integrated them into one overall effect value by using the following formula.

$$r_{xy} = \frac{\sum_{j=1}^{n} r_{xy_j}}{\sqrt{n + n\,(n-1)\,\bar{r}_{yy}}} \tag{1}$$

(Note: $n$, number of variable dimensions; $\bar{r}_{yy}$, average of correlation coefficients between subdimensions; $\sum_{j=1}^{n} r_{xy_j}$, sum of correlation coefficients between subdimensions and the outcome variable.)

Third, we summarized the similar constructs of the study variables on the basis of the research hypotheses, and a summary of the outcome variables and their similar constructs is detailed in the supplementary material at the end of this paper. To ensure the quality of coding, we had a

coder meet prior to coding so that each coder had a consistent understanding of what to code. We ensured that the two coders were coding at the same time, coding each sample independently. The initial coding consistency was 94%. To further assess intercoder reliability, two independent coders extracted data from a random subset of 30 studies. We computed Cohen's kappa (κ) to account for chance agreement. The resulting κ was 0.87, indicating excellent agreement. Coders resolved coding discrepancies through discussion. When the two coders could not agree after discussion, the other author of this paper was invited to join the discussion to resolve the staging. Eventually, all coding differences were resolved, and a full consensus was reached.

### *3.5 Definitions and Coding of Outcome Variables*

To ensure conceptual clarity and coding reliability, we established clear operational definitions for each outcome variable on the basis of the predominant conceptualizations in the literature. The following rules were applied during the coding process. For all the variables, if a primary study reported correlations for multiple subdimensions separately, we first calculated a composite correlation using Eqn.1 to represent the overall construct before it was included in the meta-analysis.

Innovative behavior is defined as an individual's intentional generation, promotion, and realization of new ideas within a work role, group, or organization (Scott and Bruce, 1994). This broad definition encompasses a spectrum of activities aimed at achieving beneficial change. We included studies measuring the overarching construct ("innovative behavior", "innovative work behavior", "employee innovation behavior") and their Chinese equivalents. Crucially, for studies that measured specific subdimensions, we treated them as distinct constructs if they originated from separate articles and reported unique correlations. In the only study reporting "exploratory innovation" and "exploitative innovation", they were combined into a composite correlation to represent the overall innovative behavior construct to avoid unit-of-analysis error. "Deviant innovation" was included, as its ultimate aim is to benefit the organization, aligning with the core of innovative work behavior. However, owing to its conceptually distinct nature, studies measuring "deviant innovation" were coded and analyzed as a separate outcome variable, distinct from general innovative behavior. "Employee innovativeness" measures were included, as in organizational contexts, they often capture the applied, beneficial intent characteristic of innovative behavior. Domain-specific innovations (e.g., "service innovation") were included as manifestations of the general construct. The final sample included one team-level study ('team creativity'), which was retained because of conceptual alignment with individual innovation (Anderson et al., 2014). A leave-one-out sensitivity analysis confirmed that this study did not influence the overall meta-analysis results.

Voice behavior is defined as the voluntary and constructive expression of ideas, information, or opinions by employees aimed at improving the functioning of their organization (Morrison, 2011). This construct is theorized to encompass two distinct dimensions: promotive voice (put forward new ideas and suggestions for improvement) and prohibitive voice (speaking up about concerns regarding harmful practices or incidents) (Liang et al., 2012). On the basis of their distinct theoretical foundations and psychological underpinnings (Liang et al., 2012), we treated promotive voice and prohibitive voice as separate constructs in our meta-analysis. Studies that reported a general measure of "voice behavior" (without distinguishing between promotive and prohibitive) were coded under a separate category labeled "General voice behavior". Chinese measures were included under their respective distinct categories.

OCB refers to individual, discretionary behaviors that are not directly or explicitly recognized by the formal reward system but that promote the effective functioning of the organization (Organ, 1988). We included the broad construct of "OCB" and its common dimensions. A composite score was calculated when the subdimensions were reported separately. "Change-oriented OCBs" were included because they represent a specific target of extra-role behavior. Specifically, on the basis of the definition by Organ (1988), we have incorporated altruistic, extrarole, and voluntary "helping behaviors" into our analysis.

Crafting behavior is defined as the self-initiated changes employees make to their job design to better align their work with their preferences, skills, and motives (Wrzesniewski and Dutton, 2001). We included studies using the term "job crafting" and its Chinese equivalent.

Proactive behavior involves self-initiated, future-oriented action by an individual aimed at bringing about change in themselves or their work environment (Parker and Collins, 2010). We included specific, concrete proactive behaviors such as proactive behavior, proactive service behavior and innovative proactive behavior. In addition, we concluded that "proactive customer service" and "voluntary green behavior" represent domain-specific manifestations of the general proactive behavior construct and incorporate them into our analysis.

For the purpose of this meta-analysis, we conceptualized career behavior broadly as an individual's agentic actions and cognitive engagements aimed at managing and shaping their career path. This encompasses both enactive behaviors (e.g., skill development, networking) and proactive cognitive planning (e.g., career reflection, goal setting) that are volitionally directed toward career development. Furthermore, we included key subjective career outcomes (e.g., perceptions of career growth and career satisfaction) that are theoretically positioned as the most immediate and direct consequences of these agentic actions (Seibert et al., 2001).

A detailed coding protocol is provided in the online supplementary material. This protocol lists each study included in the meta-analysis, the exact variable name, and all the coding decisions made.

### *3.6 Meta-Analytic Procedures*

In this study, we employed a combination of fail-safe numbers (n), Begg's rank correlation coefficient (Kendall's tau, τ), and Egger's regression test for validation purposes, with the objective of minimizing the effect of publication bias. To test the main effects, it is more appropriate to utilize a random effects model. This is on the basis that it is challenging for each individual study to achieve a representative sample. Furthermore, the appropriateness of this selection was subsequently validated through a heterogeneity test. The effect values were initially transformed into Fisher's Z, which adheres to a normal distribution. The effect values were subsequently calculated for the main effects test.

To test for moderating effects, the two categorical variables of national culture and research design were employed to identify between-group differences. The moderating effect of the continuous variable of gender was analyzed through meta-regression (Borenstein et al., 2021). In the classification of Eastern and Western cultures, on the basis of Hofstede's individualism index (IDV) and power distance index (PDI), we define IDV ≤40 and PDI ≥50 as Eastern culture (China: IDV = 20/PDI = 80; Pakistan: IDV = 14/PDI = 55; South Korea: IDV = 18/PDI = 60; Saudi Arabia: IDV = 25/PDI = 95; Turkey: IDV = 37/PDI = 66) and IDV ≥60 as Western culture (the United States: IDV = 91/PDI = 40; the United Kingdom: IDV = 89/PDI = 35; Australia: IDV = 90/PDI = 38). Furthermore, the research included in the sample was classified as either cross-sectional or non cross-sectional on the basis of the methodology employed for data collection. Furthermore, the proportion of female samples was employed as a means of measuring gender differences across independent studies.

### *3.7 Further Analysis*

Moreover, cross-sectional and non cross-sectional designs are often used in empirical research designs to explore the relationships between study variables. Compared with non cross-sectional research, cross-sectional research is more time-saving and convenient. However, cross-sectional research cannot compare and analyze data at different time points, which reduces the accuracy and persuasiveness of the results to a certain extent. This finding reminds researchers that collecting data at a single point in time and analyzing it on that basis runs the risk of bias and higher correlations. Conversely, if the data are collected and processed at two or more time points before being analyzed, the design may more accurately reflect the process through which thriving affects employees' work behavior. Therefore, research design also moderates the relationship between thriving at work and work behaviors, with a cross-sectional design enhancing the correlation compared with a non cross-sectional design.

## 4. Results

### *4.1 Publication Bias and Heterogeneity Tests*

We used both the fail-safe coefficient and Begg's correlation coefficient to test publication bias. As shown in Table 1, the fail-safe coefficients n for the relationship between thriving at work and each outcome variable are much greater than 5k+10. This proves that the publication bias problem of this meta-analysis is not serious (Rosenthal, 1979). Furthermore, Begg's rank correlation test also indicated no significant evidence of publication bias (all $p > 0.05$), which corroborates the results of the fail-safe N test. These results proved that the results of the present meta-analysis are relatively stable.

However, Egger's regression tests on innovative behavior and its subdimension of general innovative behavior suggest the risk of publication bias. Although the fail-safe N (n = 17,450 and 10,792) far exceeded the critical value suggested by Rosenthal (1979) (5k+10) and Begg's rank correlation test was nonsignificant (τ = –0.202 and –0.237, $p > 0.05$), Egger's regression test indicated a significant intercept ($p_E < 0.05$), suggesting potential funnel plot asymmetry. This inconsistency among tests is not uncommon in meta-analyses with high heterogeneity. Egger's test is particularly sensitive to heterogeneity (Sterne et al., 2011), and the extreme level of heterogeneity in our analysis ($I^2$ = 96.833% and 97.068%) suggests that the true distribution of effect sizes may itself be asymmetric, potentially because of unobserved moderators rather than publication bias alone. To verify the robustness of the findings, we performed a Trim and Fill analysis. The algorithm estimated that 7 and 5 studies would need to be imputed to achieve symmetry. The adjusted effect sizes after imputation were $\rho = 0.640$ and 0.643, which did not substantially differ from the original estimates of $\rho = 0.583$ and 0.589, respectively. Furthermore, a bootstrap robustness analysis (2000 iterations) yielded 95% confidence intervals of [0.591, 0.686] and [0.589, 0.691] that largely overlapped with the original confidence intervals [0.527, 0.635] and [0.528, 0.644], respectively. Therefore, the results collectively suggest that publication bias poses a minimal threat to the core conclusion.

On the other hand, a heterogeneity test was conducted to determine whether the meta-analysis should be carried out with a fixed-effects model or a random-effects model. As shown in Table 1, except for promotive voice, the Q statistic for each group relationship was significant, which proved that there were large differences between each group of independent studies. In addition, the $I^2$ for these group relationships was greater than 70%, which supported the idea that there was a high degree of heterogeneity among the groups. For the relationship between thriving and pro-

**Table 1. Results of the main effects meta-analysis.**

| | k | N | r | $\rho$ | $SD_\rho$ | 95% CI | | 80% CV | | Q | $I^2$ | n | 5k+10 | $\tau$ | $p_\tau$ | E | $p_E$ | model |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Lower Limits | Upper Limits | Lower Limits | Upper Limits | | | | | | | | | |
| Innovative behavior | 50 | 18,499 | 0.501 | 0.583*** | 0.281 | 0.527 | 0.635 | 0.288 | 0.777 | 1547.092*** | 96.833% | 17,450 | 260 | –0.202 | 0.380 | –8.690 | 0.013 | RE |
| General innovation | 45 | 16,775 | 0.506 | 0.589*** | 0.291 | 0.528 | 0.644 | 0.284 | 0.786 | 1500.812*** | 97.068% | 10,792 | 235 | –0.237 | 0.215 | –10.320 | 0.009 | RE |
| Deviant innovation | 5 | 1724 | 0.441 | 0.527*** | 0.091 | 0.453 | 0.593 | 0.437 | 0.606 | 14.813** | 72.997% | 697 | 35 | 0.100 | 0.807 | 0.655 | 0.866 | RE |
| Voice behavior | 11 | 4582 | 0.488 | 0.574*** | 0.290 | 0.452 | 0.675 | 0.264 | 0.777 | 378.979*** | 96.834% | 6465 | 65 | 0.013 | 0.951 | –3.795 | 0.579 | RE |
| General voice | 6 | 2016 | 0.496 | 0.621*** | 0.425 | 0.313 | 0.810 | 0.143 | 0.864 | 300.157*** | 98.667% | 1364 | 40 | 0.000 | 0.999 | –2.870 | 0.840 | RE |
| Promotive voice | 4 | 1274 | 0.517 | 0.563*** | - | 0.525 | 0.600 | - | - | 6.473† | 53.654% | 525 | 30 | 0.000 | 0.987 | 0.520 | 0.955 | FE |
| Prohibitive voice | 3 | 995 | 0.461 | 0.520*** | 0.194 | 0.332 | 0.668 | 0.314 | 0.679 | 26.637 | 92.492% | 249 | 25 | 0.333 | 0.301 | 14.681 | 0.603 | RE |
| Crafting behavior | 3 | 759 | 0.582 | 0.671*** | 0.364 | 0.358 | 0.848 | 0.313 | 0.862 | 73.115*** | 97.265% | 356 | 25 | 0.333 | 0.602 | 44.774 | 0.269 | RE |
| OCB | 9 | 1732 | 0.460 | 0.503** | 0.425 | 0.183 | 0.726 | –0.029 | 0.813 | 290.838*** | 97.249% | 903 | 55 | –0.267 | 0.452 | –12.247 | 0.203 | RE |
| Proactive behavior | 12 | 5458 | 0.549 | 0.658*** | 0.381 | 0.509 | 0.769 | 0.269 | 0.863 | 796.941*** | 95.780% | 925 | 70 | –0.062 | 0.784 | –18.768 | 0.132 | RE |
| Career behavior | 18 | 6082 | 0.461 | 0.542*** | 0.329 | 0.419 | 0.645 | 0.167 | 0.779 | 665.891*** | 97.447% | 9435 | 100 | 0.052 | 0.762 | 5.253 | 0.368 | RE |

Note: The analytic model was a random-effects model; k, number of independent samples; N, cumulative number of samples across all studies; r, mean correlation coefficient of the uncorrected samples; ρ, corrected true correlation coefficient; SDρ, standard deviation between studies corresponding to the true correlation coefficient; 95% CI, 95% confidence interval based on the corrected true correlation coefficient; 80% CV, 80% credibility interval based on the corrected true correlation coefficient; Q, heterogeneity test statistic; $I^2$, degree of inconsistency between the results of different studies in the meta-analysis; n, value of the fail-safe numbers at $p = 0.05$, i.e., the number of unpublished articles needed to make the result change from significant to nonsignificant; τ, rank correlation coefficient corrected for continuity; $p_\tau$ , $p$ value corresponding to the rank correlation coefficient; E, the intercept term of the Egger's regression test; $p_E$, $p$ value corresponding to the intercept term of the Egger's regression test; FE, fixed-effect model; RE, random-effects model; OCB, organizational citizenship behavior.

† $p < 0.1$, ** $p < 0.01$, *** $p < 0.001$.

**Table 2. Small sample stability test results.**

| | k | $\rho$ | $\rho_{adj}$ | Bootstrap 95% CI | SI |
|---|---|---|---|---|---|
| Promotive voice | 4 | 0.563 | 0.504 | [0.310, 0.648] | 9.947% |
| Prohibitive voice | 3 | 0.520 | 0.416 | [0.180, 0.592] | 11.154% |
| Crafting behavior | 3 | 0.671 | 0.581 | [0.360, 0.740] | 12.817% |

Note: k, number of independent samples; ρ, original effect value; $\rho_{adj}$, adjusted effect value; CI, confidence interval; SI, stability index.

motive voice, the heterogeneity test was not significant ($Q = 6.473$, $p > 0.05$, $I^2 = 53.654\%$). This indicates a lack of substantial heterogeneity among the included studies, suggesting that the effect sizes are estimating a common population parameter. We therefore employed a fixed-effects model for this analysis while applying a random-effects model to analyze other relationships.

### *4.2 Main Effects*

The results of the meta-analytic main effects test are shown in Table 1. The results revealed that thriving at work was significantly positively related to innovative behavior ($\rho = 0.583$, $p < 0.001$), voice behavior ($\rho = 0.574$, $p < 0.001$), crafting behavior ($\rho = 0.671$, $p < 0.001$), OCB ($\rho = 0.503$, $p < 0.01$), proactive behavior ($\rho = 0.658$, $p < 0.001$), and career behavior ($\rho = 0.542$, $p < 0.001$). Among them, thriving at work had the greatest effect on crafting behavior and proactive behavior and the least effect on OCB. This finding supports $H_1$–$H_6$.

Beyond the overall construct, we examined the relationships with specific subdimensions. With respect to voice behavior, the effect of thriving was stronger for promotive voice ($\rho = 0.563$; $p < 0.001$) than for prohibitive voice ($\rho = 0.520$; $p < 0.001$). For innovative behavior, the relationship with deviant innovation was also positive and significant ($\rho = 0.527$, $p < 0.001$), although it was slightly weaker than that for general innovative behavior ($\rho = 0.589$, $p < 0.001$).

To ensure the stability of the effect size, as shown in Table 2, we further tested and corrected the effect values of promotive voice, prohibitive voice and crafting behavior, which had small sample sizes ($k < 5$). We used the Hunter–Schmidt correction method to obtain the corrected robust effect values. In addition, we used the leave-one-out sensitivity test and reported that the fluctuations in the effect values of these variables were within an acceptable range. This proves the reliability of our results.

### *4.3 Moderating Effects*

The results of the moderating effect tests for national culture and study design are shown in Table 3. Since no studies exist across different cultural contexts for deviant innovation, promotive voice, and prohibitive voice, we did not examine the moderating effect of national culture on these subdimensions. The results indicate that national culture plays a moderating role in the relationship between thriving at work and OCB ($Q_B = 2.786$, $p < 0.1$, where QB is the between-group heterogeneity test statistic). In addition, the positive effect of thriving on work behavior was greater in the cultural context of Eastern nations, which partially supports $H_7$. Moreover, we discovered that research design moderates the relationships between thriving at work and voice behavior ($Q_B = 4.882$, $p < 0.05$), crafting behavior ($Q_B = 6.410$, $p < 0.05$), and career behavior ($Q_B = 5.424$, $p < 0.05$). Overall, the use of a cross-sectional design resulted in higher correlation coefficients between variables.

The results of the test of the moderating effect of gender are shown in Table 4. The results show that gender plays a moderating role in the relationships between thriving at work and crafting behavior, OCB, and proactive behavior. Compared with male employees, female employees who are thriving at work exhibit more crafting behavior ($\beta = 1.543$, $p < 0.001$) and prohibitive voice ($\beta = 0.781$, $p < 0.01$), which is consistent with H8a. However, compared with male employees, thriving female employees engage in less OCB ($\beta = –0.314$; $p < 0.001$) and proactive behavior ($\beta = –0.8812$; $p < 0.001$), supporting H8b. In addition, since only career behavior met the conditions for cross-analysis ($k \geq 3$ for each group), only career behavior was used for cross-analysis of gender and national culture. The results show that the influence of thriving at work on career behavior is not jointly moderated by gender or national culture.

## 5. Discussion

Thriving at work refers to a positive psychological state that consists of vitality and learning (Spreitzer et al., 2005). Individuals' thriving at work can help them improve their work behaviors and promote organizational development. On the basis of self-determination theory and social embeddedness theory, this study provides the first meta-analysis of the relationship between individual thriving and work behaviors. We found significant positive correlations between thriving at work and all six individuals' work behaviors. In addition, national culture and gender moderate the relationship between thriving and work behavior. The theoretical and practical implications of this study are discussed below.

### *5.1 Theoretical Implications*

First, this study expands the theoretical framework of thriving at work and enriches the meta-analytic nomological network of thriving at work. The findings of the meta-

**Table 3. Moderator effects meta-analysis results of national culture and research design.**

| | | k | $r_u$ | $r_c$ | $SD_c$ | 95% CI | | 80% CV | | $Q_B$ |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Lower Limits | Upper Limits | Lower Limits | Upper Limits | |
| Thriving at work - Innovative behavior | | | | | | | | | | |
| National culture | Eastern culture | 48 | 0.502 | 0.586*** | 0.280 | 0.529 | 0.639 | 0.292 | 0.779 | 0.310 |
| | Western culture | 2 | 0.453 | 0.502** | 0.437 | –0.107 | 0.836 | –0.049 | 0.818 | |
| Research design | Cross-sectional design | 32 | 0.487 | 0.563*** | 0.284 | 0.489 | 0.630 | 0.258 | 0.767 | 0.890 |
| | Non cross-sectional design | 18 | 0.523 | 0.617*** | 0.284 | 0.525 | 0.695 | 0.333 | 0.799 | |
| Thriving at work - Voice behavior | | | | | | | | | | |
| National culture | | - | - | - | - | - | - | - | - | - |
| Research design | Cross-sectional design | 5 | 0.579 | 0.696*** | 0.253 | 0.556 | 0.798 | 0.484 | 0.831 | 4.882* |
| | Non cross-sectional design | 8 | 0.421 | 0.481*** | 0.253 | 0.327 | 0.610 | 0.191 | 0.694 | |
| Thriving at work - Crafting behavior | | | | | | | | | | |
| National culture | | - | - | - | - | - | - | - | - | - |
| Research design | Cross-sectional design | 2 | 0.678 | 0.766*** | 0.179 | 0.631 | 0.856 | 0.652 | 0.847 | 6.410* |
| | Non cross-sectional design | 1 | 0.340 | 0.396* | 0.179 | 0.047 | 0.659 | 0.184 | 0.572 | |
| Thriving at work - OCB | | | | | | | | | | |
| National culture | Eastern culture | 7 | 0.552 | 0.602** | 0.421 | 0.248 | 0.814 | 0.121 | 0.854 | 2.786† |
| | Western culture | 2 | 0.233 | 0.250 | 0.421 | –0.364 | 0.712 | –0.309 | 0.681 | |
| Research design | Cross-sectional design | 4 | 0.537 | 0.588** | 0.438 | 0.207 | 0.814 | 0.072 | 0.855 | 0.806 |
| | Non cross-sectional design | 5 | 0.275 | 0.294 | 0.438 | –0.346 | 0.747 | –0.290 | 0.719 | |
| Thriving at work - Proactive behavior | | | | | | | | | | |
| National culture | | - | - | - | - | - | - | - | - | - |
| Research design | Cross-sectional design | 8 | 0.597 | 0.713*** | 0.346 | 0.565 | 0.816 | 0.406 | 0.875 | 1.904 |
| | Non cross-sectional design | 4 | 0.443 | 0.526** | 0.346 | 0.224 | 0.736 | 0.122 | 0.780 | |
| Thriving at work - Career behavior | | | | | | | | | | |
| National culture | Eastern culture | 12 | 0.470 | 0.558*** | 0.338 | 0.411 | 0.678 | 0.177 | 0.794 | 0.213 |
| | Western culture | 5 | 0.436 | 0.496** | 0.338 | 0.227 | 0.695 | 0.092 | 0.760 | |
| Research design | Cross-sectional design | 10 | 0.540 | 0.629*** | 0.291 | 0.508 | 0.726 | 0.342 | 0.809 | 5.424* |
| | Non cross-sectional design | 7 | 0.321 | 0.377** | 0.291 | 0.168 | 0.553 | 0.012 | 0.653 | |

Note: k, number of independent samples; ru, sample mean correlation coefficient uncorrected for measurement error; rc, true correlation coefficient corrected for measurement error; SDc, standard deviation of rc; $Q_B$, test statistic for between-group heterogeneity. Studies using crafting behavior, voice behavior and proactive behavior as outcome variables were all from Eastern cultural samples; therefore, analyses of cross-cultural moderators could not be performed.

† $p < 0.1$, *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.

analysis provide robust empirical support for the integrated theoretical framework we proposed (Fig. 1). Our results demonstrate that thriving at work acts through the psychological mechanisms of SDT (satisfying needs for autonomy, competence, and relatedness) to drive a spectrum of work behaviors. More importantly, we validate the framework's core proposition that this process is not universal but is critically shaped by two key boundary conditions: the macronational cultural context and individual gender role expectations. Therefore, our study significantly expands the nomological network of thriving and expands the findings of Kleine et al. (2019) by systematically testing and confirming these complex interactions. The results indicated that when individuals achieve thriving, they proactively regulate their work behavior to maintain or further promote a thriving state. This facilitates the realization of personal development and growth (Spreitzer et al., 2005). We found that thriving at work was most strongly related to crafting behavior ($\rho$ = 0.671) and proactive behavior ($\rho$ = 0.658). These results are consistent with previous findings that thriving individuals may enhance interpersonal communication, refine task scheduling, and achieve positive shifts in their perceptions of work (Qi et al., 2019; Rudolph et al., 2017).

Moreover, our analysis of the subdimensions of voice and innovation behavior revealed more complex relationships. Meta-analysis revealed that thriving had a stronger effect on promotive voice than on prohibitive voice. This finding aligns with the notion that the energy and learning from thriving are more readily channeled into constructive idea-building than into the risk-laden act of criticizing existing practices—a behavior that may require a higher degree of psychological safety (Edmondson, 1999). In addition, there is a significant correlation between thriving and deviant innovation, indicating that even unsanctioned activities are motivated by energy and learning. However, compared with sanctioned innovation, the perceived risk of deviance may attenuate this relationship. It is evident that

**Table 4. Moderator effects meta-analysis results of gender.**

| | k | β | SE | Z | 95% CI | |
|---|---|---|---|---|---|---|
| | | | | | Lower Limits | Upper Limits |
| Thriving at work - Innovative behavior | 50 | 0.005 | 0.324 | 0.020 | –0.630 | 0.640 |
| General | 45 | –0.021 | 0.347 | –0.060 | –0.701 | 0.659 |
| Deviant innovation | 5 | 0.182 | 0.568 | 0.320 | –0.931 | 1.295 |
| Thriving at work - Voice behavior | 11 | 0.041 | 0.365 | 0.110 | –0.674 | 0.755 |
| General voice | 5 | 0.367 | 1.427 | 0.261 | –2.424 | 3.157 |
| Promotive voice | 4 | 0.181 | 0.133 | 1.359 | –0.080 | 0.442 |
| Prohibitive voice | 3 | 0.781 | 0.252 | 3.101** | 0.287 | 1.275 |
| Thriving at work - Crafting behavior | 3 | 1.543 | 0.444 | 3.471*** | 0.007 | 0.024 |
| Thriving at work - OCB | 9 | –0.314 | 0.081 | –3.877*** | –0.473 | –0.155 |
| Thriving at work - Proactive behavior | 12 | –0.812 | 0.143 | –5.682*** | –1.092 | –0.532 |
| Thriving at work - Career behavior | 18 | 0.358 | 0.508 | 0.704 | –0.638 | 1.354 |
| Western culture | 5 | 0.104 | 0.929 | 0.112 | –1.716 | 1.925 |
| Eastern culture | 13 | 0.578 | 0.680 | 0.851 | –0.755 | 1.911 |

Note: k, number of independent samples; β, meta-regression coefficient; SE, standard error of the meta-regression coefficient; Z, Z statistic of the meta-regression coefficient. In the meta-regression of thriving at work and crafting behavior, owing to the lack of an independent sample size, the intercept term is removed when the meta-regression is conducted to complete the analysis.

**$p < 0.01$, ***$p < 0.001$.

thriving does not uniformly increase all forms of voice and innovation but has differentially potent effects on its more promotive and less risky forms.

In addition, this study revealed that national culture moderates the effect of the role of thriving on work behavior, extending the socially embedded model of thriving at work to the national cultural context. Previous studies have discussed the mechanisms through which cultural factors moderate the formation of thriving at work (Liu et al., 2021), but research on the effects of cultural factors on the impact of thriving at work is lacking. Spreitzer et al.'s (2005) analytical framework considers environmental factors within the organization (e.g., departmental context, work resources, etc.) that influence thriving at work. However, outside of the organization, the macroenvironment may be equally influential. Different national cultures can affect individuals' ability to thrive at work (Rozkwitalska, 2018). We found that thriving at work plays different roles in OCB in different national cultures. The findings suggest that thriving at work has a greater positive effect on OCB ($Q_B = 2.786$, $p < 0.1$) in the context of Eastern national cultures. Thriving at work requires individuals not only to maintain a positive psychological state but also to form healthy and harmonious interpersonal relationships in the process of interacting with others (Liu et al., 2021). On the one hand, the culture in Eastern national countries places greater emphasis on collective relationships and sees fewer interest divergences (Kotiloglu et al., 2024). A high level of organizational identification often leads employees to reciprocate with a level of generosity that goes beyond quid-pro-quo principles (Morris and Leung, 2000), and they will exhibit more enthusiastic and intense citizenship behaviors (Taras et al., 2010). On the other hand, collectivist culture conveys what is considered important, appropriate, and expected, as well as the rewards that employees can anticipate, which influences or encourages the emergence of OCB (Lockhart et al, 2020). For OCB, the pattern is directionally consistent with the hypothesis, though the difference was only marginally significant and requires further validation. For voice behavior, cross-cultural comparison was not possible because all available studies were conducted in Eastern contexts. Nevertheless, the positive effect of thriving on voice behavior in Eastern cultures suggests that thriving can promote such collective-oriented behaviors in collectivist settings. However, cultural differences are not significant for behaviors oriented toward individual achievement (such as innovation and career behavior). These findings lend support to the macrolevel pathway of our integrated model (Fig. 1), confirming that the national cultural environment—as an extension of the social embeddedness model—profoundly shapes how the psychological resources of thriving are behaviorally expressed.

Furthermore, this study reveals gender differences in the effects of thriving at work. While previous studies on thriving have largely overlooked gender as a boundary condition, our findings show that thriving men and women strategically allocate their psychological resources in different ways, likely in response to different societal expectations and constraints (Eagly, 1987; Putrevu, 2001). Contrary to a perspective that might predict uniform increases in all positive behaviors, thriving women engaged in more job crafting ($\beta = 1.543$, $p < 0.001$)—a self-focused behavior aimed at optimizing personal resources and fit. In contrast, thriving men displayed more OCB ($\beta = –0.314$ $p < 0.001$)

and proactive behavior ($\beta = -0.812$; $p < 0.001$), which are behaviors that are more externally focused and visible to the organization. On the one hand, even if female employees are thriving at work, they face more family pressure than their male counterparts do (Grandey and Krannitz, 2016). Conflict and balance between work and family may make it difficult for female employees to spend more time or energy on OCB and proactive behavior (Greenhaus et al., 2012). On the other hand, owing to gender bias, in many cases, females are not as well supported by work resources as males are (Taylor et al., 2020). Moreover, female employees who are hindered from fulfilling their work tasks because of family affairs will receive fewer performance evaluations and fewer promotion opportunities (Hoobler et al., 2009). This finding also supports another finding from the meta-regression: that is, that thriving women exhibit more prohibitive voice. Owing to possibly facing more potential workplace threats (McLaughlin et al., 2012), women are more motivated to prevent them from engaging in voice behaviors. Thus, female employees who are thriving at work are more likely to spend their time and energy on maximizing hard-won work resources rather than wasting them on some out-of-role behaviors (e.g., OCBs). These results validate the individual-level pathway of our model. This suggests that gender role expectations act as a crucial filter, channeling the energy from thriving into behaviors that are strategically aligned with gendered social norms and constraints.

Finally, this study also discusses the different effects of thriving on work behavior under different research designs, revealing that researchers should be cautious about using cross-sectional research designs. Thriving at work is a self-adaptive process for individuals who may change dynamically over time (Spreitzer et al., 2005). Therefore, targeting the same individual's level of thriving at work at different points in time may yield different results. Although an increasing number of scholars are aware of the limitations of cross-sectional research designs, the majority of studies on the impact of thriving on work behavior are still based on cross-sectional designs. The correlation coefficients of thriving at work with voice behavior ($Q_B = 4.882$, $p < 0.05$), crafting behavior ($Q_B = 6.410$, $p < 0.05$), and career behavior ($Q_B = 5.424$, $p < 0.05$) were significantly greater in the studies with a cross-sectional design. These findings remind scholars that they need to adopt appropriate methods on the basis of their assumptions when they conduct research design and try to collect data from multiple sources at multiple time points. An improper research design may undermine the credibility of the findings.

### *5.2 Practical Implications*

Through a meta-analysis, this study revealed the positive effects of thriving at work on improving individual work behaviors. Our findings suggest that thriving at work is a pivotal determinant of employees' positive behavior in the workplace. It is equally important for facilitating individual and organizational development. Therefore, it is imperative for supervisors to foster employee thriving through the formulation of evidence-based strategies and the implementation of more precise training and development initiatives. This targeted approach can yield significant benefits in recalibrating their work and career orientations (Qi et al., 2019). In addition, it invigorates employees' enthusiasm, elevating the overall work environment within the organization (Jiang et al., 2021). It also fosters a positive transformation in employees' perceptions of the organization, encouraging positive interactions between individuals and the organization (Abid et al., 2018), which in turn bolsters organizational performance and supports its sustained development.

In addition, this study revealed the moderate role of national culture in the relationship between thriving and work behavior. There are significant differences in organizational management patterns and leadership styles between Eastern and Western countries. Our findings suggest that the moderating role of national culture is reflected mainly in the relationship between thriving at work and individuals' altruistic behavior. Individuals in Eastern countries that value collective relationships are more likely to exhibit behaviors that benefit the organization and society. Therefore, encouraging employees' voice behavior, recognizing employees' organizational citizenship behavior, and promoting the altruistic behavior of thriving individuals are more important for Western countries.

Finally, our study revealed gender differences in the behavioral performance of individuals who are thriving at work. Female employees exhibited more crafting behaviors and less OCB and proactive behaviors. In addition, gender does not appear to be a distinguishing factor in regard to thriving and creativity, as both male and female employees exhibit comparable levels of these attributes (Taylor and Barbot, 2021). However, despite this parity, many female employees still face the challenge of inequitable treatment in the workplace. To address this issue, organizations must strive to provide equitable access to work resources for all individuals. By doing so, they can empower female employees to fully engage in their initiative and contribute to the organization's success. Moreover, fostering a fair and supportive environment not only benefits the women within the company but also contributes to cultivating a healthy and inclusive organizational culture that values the contributions of every team member. For example, organizations can provide women with flexible working hours or remote working opportunities to help them reduce conflicts between their family roles. Organizations are also encouraged to offer effective career development guidance programs to assist women in achieving their personal development goals. In addition, in an Eastern collectivist environment, managers should publicly recognize women's behavior that benefits the organization and utilize group harmony

norms to amplify its positive impact. In a Western individualistic environment, innovative incubation funds and career mentoring programs can be used to transform thriving at work into patents and career growth. For policy-makers, government-sponsored leadership training for women and cultural adaptability programs for multinational corporations are encouraged to ensure that thriving translates into equitable career growth.

*5.3 Limitations and Future Directions*

This study has several limitations. Notably, some of the outcome data are derived from a small or concentrated set of countries, which may result in independent samples from the same country or an insufficient data source. Future research should place greater emphasis on the role of cultural factors in these dynamics. Additionally, the scarcity of literature examining the role of thriving at work within teams or organizations has resulted in this meta-analysis being limited to the individual level, omitting a comprehensive analysis of team or organizational data. Therefore, subsequent studies should concentrate on cross-level examinations to broaden and deepen the understanding of this phenomenon within the academic community. Finally, the current research landscape is dominated by studies that concentrate on variables directly related to the workplace, with a notable absence of research into how thriving at work extends to other life domains, such as achieving a balance between work and family responsibilities. To address this gap, future studies should take an individual's family life as a starting point to investigate the mechanisms that delineate the boundaries and the potential spillover effects of thriving at work, thus providing a more comprehensive view of its influence on personal and familial well-being.

## Availability of Data and Materials

All data reported in this paper will be shared by the corresponding author upon reasonable request.

## Author Contributions

XG and BL designed the research study. BL, XW and QL performed the research. XG and BL analyzed the data. XG, BL, XW and QL wrote the manuscript. All authors contributed to editorial changes in the manuscript. All authors read and approved the final manuscript. All authors have participated sufficiently in the work and agreed to be accountable for all aspects of the work.


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## Conflicts of Interest

The authors declare no conflicts of interest.

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