



Proactive Personality and Creative Behavior: Examining the Role of Thriving at Work and High-Involvement HR Practices

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Published online: 2 July 2020

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Abstract

This study examines the link between proactive personality and creative behavior by focusing on employee thriving at work as a mediator. Data from 438 employees and their supervisors were collected and examined by conducting structural equation modeling. This analysis revealed that employee thriving at work fully mediates the relationship between proactive personality and creative behavior. Additionally, the results showed that the perceived presence of high-involvement human resources (HR) practices in the organization enhances the tendency of proactive individuals to thrive at work. The paper concludes with a discussion of the implications for theory and practice as well as on directions for future research.

Keywords Creative behavior · Proactive personality · High-involvement HR practices · Thriving at work

Introduction

Employee creative behavior is highly valued by organizations, as it contributes to organizational survival and productivity (Amabile, 1996; Liu, Jiang, Shalley, Keem, & Zhou, 2016; Ng & Lucianetti, 2016). When individuals display creative behavior at work, they generate ideas that can be useful to a firm's products or services (Shalley & Gilson, 2004). In turn, organizations can implement employees' creative ideas to respond to market changes or capture market opportunities, thereby increasing their competitive advantage (Oldham, 2002; Shalley, Zhou, & Oldham, 2004). In this way, employee creative behavior has been found to play an important role in determining firm performance (Anderson, Potočnik, & Zhou, 2014).

Employee creativity is a complex construct that may be affected by both individual (e.g., affective or cognitive states, and individual traits) and contextual (e.g., work environment and human resources [HR] practices) factors (Amabile, 2013). Indeed, previous studies have examined myriad potential antecedents that may affect this behavior. For example,

employee creativity has been found to be influenced by factors such as empowering leadership (Zhang & Bartol, 2010), employee mood changes (George & Zhou, 2007), and work environment (Amabile, Conti, Coon, Lazenby, & Herron, 1996).

Whereas a substantial number of studies have empirically demonstrated that employee personality is one of the factors that can influence work outcomes (e.g., Hogan & Holland, 2003; Judge & Ilies, 2002; Salgado, 1997), a narrower stream of research has explored the role of different personality types on employee creative behavior. For instance, Zhou (2003) empirically established a positive link between creative personality and creative behavior. Other researchers have focused on how different dimensions of the Big 5 personality traits affect employee creativity (e.g., Baer, 2010; Park, Zhou, & Choi, 2018; Raja & Johns, 2010).

Similarly, scholars have examined the link between proactive personality and creative behavior. Bateman and Crant (1993) defined an individual with a proactive personality as "one who is relatively unconstrained by situational forces and who effects environmental change" (p. 105). This type of personality reflects the degree to which individuals tend to find opportunities to make changes in the workplace and to act in realizing those changes (Crant, 2000). Proactive individuals do not passively adapt to all the aspects of the environment in which they reside, but rather are motivated to seek new and better solutions to various procedures or processes that they may perceive as ineffective in an effort to improve their current circumstances (Parker, Bindl, & Strauss, 2010).

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Owing to their pronounced desire to actively shape the surrounding environment to better suit their needs, proactive individuals are more likely to demonstrate creative behaviors (Pan, Liu, Ma, & Qu, 2018). Empirical evidence has also supported a positive link between proactive personality and creative behavior (e.g., Kim, Hon, & Crant, 2009; Kim, Hon, & Lee, 2010; Seibert, Kraimer, & Crant, 2001). However, the underlying mechanisms through which an individual's proactive personality is related to his or her creative behavior remain largely unexplored (Anderson et al., 2014; Jiang, 2017; Liu, Gong, Zhou, & Huang, 2017).

In addressing this gap in the literature, this study has two purposes. First, we examine the relationship between proactive personality and creative behavior by focusing on employee thriving at work. The choice of thriving as a mediator is appropriate because individuals who thrive at work are characterized by a high degree of knowledge accumulation as well as a passion for their work (Carmeli & Spreitzer, 2009). Both are important conditions that facilitate the expression of creative behavior (Amabile, 2013). Second, we examine potential moderators of the relationship between proactive personality and thriving at work. Even though individuals with a proactive personality tend to exhibit behaviors that make them more likely to thrive at work (Jiang, 2017), the manifestation of this personality type depends on the surrounding work environment. Trait activation theory (Tett & Guterman, 2000) suggests that the translation of personality traits into behaviors is affected by the presence of situational cues. These cues can consist of job or organizational characteristics that can either hinder or stimulate the manifestation of a trait as a behavior (Lievens, Chasteen, Day, & Christiansen, 2006). In the case of proactive personality, Kim et al. (2009) found that individuals with a proactive personality tend to exhibit proactive behaviors when they operate in a supportive social environment. Furthermore, proactive individuals tend to perform better when they enjoy a higher degree of autonomy at work (Fuller, Hester, & Cox, 2010). Given that the work environment is also shaped by the type of HR practices implemented by organizations (Mendelson, Turner, & Barling, 2011), we suggest that proactive workers' perceptions of high-involvement HR practices may increase their chances of thriving at work. As shown in Fig. 1, the proposed conceptual

model suggests that thriving at work acts as a mediator of the link between proactive personality and creative behavior and that the perceived presence of high-involvement HR practices moderates the relationship between proactive personality and thriving at work.

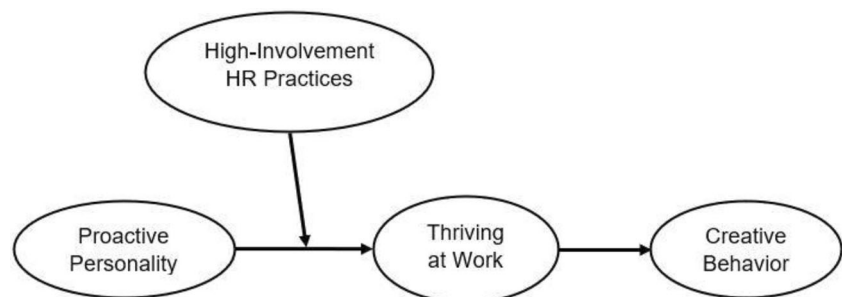
Theoretical Background and Hypothesis Development

Creative behavior can be defined as the “development of ideas about products, practices, services or procedures that are (a) novel and (b) potentially useful to the organization” (Shalley et al., 2004, p. 934). This behavior has drawn significant scholarly attention because it has long been considered to be the micro-foundation of firm innovation (Kanter, 1988). In turn, many studies have theorized and examined factors that may affect employee creativity. One prominent theory, which also guides the model developed in our study, is the componential theory of creativity (Amabile, 1983, 2013). This theory states that four main components contribute to individual creativity: three within-individual components and one component outside the individual. The within-individual components include intrinsic motivation, domain-relevant knowledge, and creativity-relevant processes that promote risk-taking or taking new perspectives on problems. The component outside the individual is the surrounding environment, which interacts with the within-individual components to either increase or reduce creativity. Ideally, creativity is maximized when a highly motivated individual with high levels of domain-related skills and a personality that is conducive to creativity works in a supportive environment (Amabile, 2013). The model developed in this study relies on these components to explain how employees with a proactive personality express a higher degree of creativity in their work environment.

Proactive Personality, Creative Behavior, and Thriving at Work

Proactive personality represents a relatively new development in disposition research, and it has received a great deal of attention in the field of management since it was first

Fig. 1 Theoretical framework



conceptualized (Crant, Hu, & Jiang, 2016). In this line of research, the person–environment relationship is considered a reciprocal process in which people are not simply sculptures created by environmental forces but also sculptors of their surrounding environment (Bandura, 1986; Endler & Magnusson, 1977). Proactive research extends past studies by paying exclusive attention to the tendency of some individuals to take the initiative in optimizing their surrounding environment (Bateman & Crant, 1993). The concept of proactive personality is based on the observation that some people are constantly looking to alter their environment, change the world, and exercise primary control that modifies objective conditions, whereas others tend to conform to the status quo, adapt to the world, and practice secondary control that merely accommodates to the existing conditions (Handy, 1989; Weisz, 1990). In the workplace, similar patterns are observed: Some employees constantly track issues, launch new initiatives, and generate constructive solutions, whereas others are relatively satisfied with the existing conditions and simply “go with the flow” (Bateman & Crant, 1993).

Prior studies have validated proactive personality as a distinct personal character. Proactive personality appears to be related to some of the Big 5 personality traits, in that it emphasizes embracing new experiences (extraversion), goal attainment (conscientiousness), and exploration of the unfamiliar (openness), yet is conceptually different: The essence of proactive personality is the tendency to take control of one’s environment by coming up with new solutions, moving to central positions in social networks, and tolerating short-term discomfort (Major, Turner, & Fletcher, 2006; Seibert et al., 2001; Truxillo, McCune, Bertolino, & Fraccaroli, 2012). Empirical and meta-analytical studies have confirmed its construct validity, with evidence showing that proactive personality explains a significant portion of variance—beyond that explained by the Big 5 traits—in key organizational outcomes. For instance, Crant and Bateman (2000) found that proactive personality explained an additional 5.7% of variance in charismatic leadership after controlling for the Big 5 traits. In their meta-analysis, Spitzmuller, Sin, Howe, and Fatimah (2015) found that proactive personality explained an extra 5% of variance in job performance, 5.8% of variance in task performance, 2.5% of variance in organization-targeted organizational citizenship behavior (OCB), and 4.8% of variance in individual-targeted OCB. Moreover, Young, Glerum, Wang, and Joseph (2018) recently found that proactive personality plays a more significant role than any of the Big 5 personality traits when it comes to predicting employee engagement at work, while Major et al. (2006) found that it is more important than the Big 5 in predicting an employee’s motivation to learn. In addition, when compared with the Big 5 traits, proactive personality is the second most important predictor of job performance, after conscientiousness (Thomas, Whitman, & Viswesvaran, 2010).

The link between proactive personality and creative behavior has been generally based on specific characteristics of proactive individuals. Such individuals are change-oriented, meaning they tend to change the environment around them to better suit their needs instead of simply adjusting or adapting to such an environment (Bateman & Crant, 1993). They do so by searching for new and more efficient ways of doing things in an effort to improve their performance (Choi & Thompson, 2005). This search process makes it more likely that proactive individuals will demonstrate their creative nature. Previous investigations, including a meta-analysis, have established a positive direct link between proactive personality and creative behavior (e.g., Fuller & Marler, 2009; Kim et al., 2009; Li, Liu, Liu, & Wang, 2017). For instance, Kim et al. (2009) study showed that proactive employees in various companies in Hong Kong exerted higher levels of creativity. Similarly, Li et al. (2017) found that proactive personality was positively related to creative behavior in Chinese high school teachers. In this study, we examine the underlying mechanisms of the relationship between proactive personality and creative behavior. We argue that individuals with a proactive personality are more likely to exhibit creative behaviors because this type of personality can shape an employee’s ability to thrive at work, which in turn increases his or her creative behavior.

Thriving at work is a construct that simultaneously focuses on two important aspects of an employee’s psychological functioning and development—vitality and learning. This construct emerged as a product of scholarly endeavors to understand why some individuals were able to successfully navigate changing environments with creative solutions. The answer lies largely in their positive state of mind, which makes such individuals more energetic and adaptive. According to Spreitzer, Sutcliffe, Dutton, Sonenshein, and Grant (2005), thriving at work refers to the “psychological state in which individuals experience both a sense of vitality and a sense of learning at work” (p. 538). *Vitality* comprises a sense of energy or passion for work (Nix, Ryan, Manly, & Deci, 1999), while *learning* entails the feeling that an individual is continuously getting better at what he or she does by acquiring domain-relevant knowledge and skills (Porath, Spreitzer, Gibson, & Garnett, 2012). In other words, if an employee perceives himself or herself as improving on the job while also having a passion for doing that job, then the employee is considered to be thriving at work. It is important to note that both the feeling of vitality and the learning need to be high for an individual to experience thriving. For example, an employee is not thriving when he or she is constantly learning by mastering a new technology but becomes burned out by the learning process (high learning, low vitality). Similarly, an employee is not thriving when he or she feels alive in the workplace due to relationships with coworkers but is not learning skills that contribute to his or her professional development (high vitality, low learning) (Spreitzer et al., 2005). Researchers have found that thriving at work is positively related to a number of employee attitudes and

behaviors, such as positive health, affective commitment (Walumbwa, Muchiri, Misati, Wu, & Meiliani, 2018), individual job performance (Porath et al., 2012), career adaptability (Jiang, 2017), and change-oriented OCB (Li, Liu, Han, & Zhang, 2016).

Thriving is a psychological state that characterizes a transient internal quality of an individual, rather than being a stable dispositional trait (Chaplin, John, & Goldberg, 1988). Moreover, thriving represents a unique and meaningful portion of individuals' psychological functioning and development; it is conceptually different from other related constructs. Although this construct shares some similarities with work engagement and intrinsic motivation, thriving differs from these two constructs in important ways. For instance, like work engagement (Salanova & Schaufeli, 2008), thriving at work may derive from enjoyment of the work itself (i.e., intrinsic motivation). However, unlike work engagement, thriving can also derive from the employee's desire to achieve personally important goals (i.e., learning) (Spreitzer, Lam, & Fritz, 2010). In addition, thriving is similar to the concept of flow. Flow is a positive psychological state that people experience when they are completely immersed in the activity they are performing, such that they ignore time and their surroundings (Csikszentmihalyi, 1997). Although both the thriving and flow concepts can be characterized by active mental functioning, individuals "in the flow" do not necessarily see themselves as learning new things in the process (Spreitzer et al., 2005). Moreover, on the surface, thriving seems to overlap with the concept of fit—the congruent relationship that employees form with their work environment when their work values and skill level are consistent with the requirements of their organizations (Erdogan & Bauer, 2005). A closer look at this overlap reveals that thriving focuses on an individual's own psychological state of mind as opposed to his or her relationship with the organization (as is the case with fit). Lastly, another related construct is mindfulness, defined as "a state of consciousness in which attention is focused on present-moment phenomena occurring both internally and externally" (Dane, 2011, p. 1000). While mindfulness refers to a psychological state in which people pay exclusive attention to what is happening at the present moment, thriving represents the affective and cognitive experience of personal growth (Porath et al., 2012). In other words, mindfulness is concerned with attentive consciousness of the environment at the present, and its focus may or may not be the experience of personal growth.

We refer to the socially embedded model of thriving at work (Spreitzer et al., 2005) to explain the mediating role of thriving. This model posits that certain agentic behaviors can shape thriving, such as task focus and exploration. Task focus refers to the individual's ability to focus his or her attention on the task at hand, whereas exploration refers to the individual's ability to engage in exploratory behaviors such as risk-taking or experimentation. The socially embedded model further states that once employees thrive at work, they will engage in outcomes that are beneficial to their organizations (Porath et al., 2012).

Proactive individuals are more predisposed to thrive at work because they tend to exhibit agentic behaviors that can shape thriving. More specifically, proactive individuals tend to show initiative and perseverance at work (Crant, 1995), and this tendency to get involved in their work also makes them more likely to immerse themselves and focus on their tasks at hand (Christian, Garza, & Slaughter, 2011). Additionally, individuals with a proactive personality tend to be more motivated to pursue self-development, as they constantly seek out new opportunities that can contribute to their own development (Major et al., 2006). Lastly, because proactive individuals are on the lookout for new ways of doing things, they tend to build networks with individuals who have influence or power to help them achieve their goals by providing them with information or other resources (Thompson, 2005). Thus, by engaging in these agentic behaviors, proactive individuals are more likely to thrive at work.

In turn, thriving can channel the effect of proactive personality on individual creativity through both the vitality and learning dimensions. For instance, the learning process is necessary for employees to expand their knowledge base (Amabile, 1998). Such an increased knowledge base allows an individual to identify and explore new ways of doing things at work so as to improve his or her performance, thereby exhibiting a higher degree of creativity. Additionally, vitality is an important contributor to creative behavior. Fredrickson's (2001) "broaden and build" theory takes a positive emotions approach to provide a theoretical explanation of why a higher sense of vitality increases individual creativity. According to this theory, when people experience positive emotions (such as vitality), their range of thoughts and actions broadens. Armed with this broader array of thoughts and actions, employees then have a higher chance of coming up with new ideas. In fact, the positive relationship between thriving at work and creative behavior is well established in the recent literature, which includes both a meta-analysis and various individual studies (Carmeli & Spreitzer, 2009; Kleine, Rudolph, & Zacher, 2019; Wallace, Butts, Johnson, Stevens, & Smith, 2016; Yang, Li, Liang, & Zhang, 2019). Building on the existing literature, we hypothesize that thriving will mediate the relationship between proactive personality and creative behavior:

H1: Thriving at work mediates the relationship between proactive personality and creative behavior.

The Role of High-Involvement HR Practices

Proactive individuals do not work in a vacuum. While these individuals may be predisposed to thrive at work, they are also influenced by the workplace environment. Indeed, when the work environment does not provide opportunities for employees to thrive, their innate motivation to thrive may be

reduced (Spreitzer et al., 2005). Based on this perspective, the literature has stressed that the effects of proactive personality depend on how the work is designed and structured (Pan et al., 2018). As Bakker, Tims, and Derks (2012) argue, work performance is not solely determined by an employee's proactive tendency to meet the job requirements; rather, the organization's work system should also ensure that such proactive endeavors can be properly accommodated. In this sense, employee participation and involvement are necessary conditions in the process of employee–work environment interaction. Thus, according to our conceptualization, high-involvement HR practices create a work context that facilitates proactive employees' environment-controlling tendencies by equipping them with proper knowledge, skills, and decision-making latitude.

High-involvement HR practices comprise a set of HR practices that aim to increase employee involvement in decision-making. This set of practices is based on the work by Lawler (1986), who suggested that employee involvement is crucial for improving organizational performance. Lawler developed the PIRK model, which suggests that the key to making employees more involved is to give them more power (P), information (I), rewards (R), and knowledge (K). In other words, employees should have more power or autonomy, should possess the proper knowledge needed to effectively contribute to the organization, should be given more information about the performance of their organization, and should be rewarded properly based on their contributions at work. Based on this model, later studies focused on identifying different HR practices that could be implemented by organizations to get employees to be more involved in their jobs (e.g., Boxall, Hutchison, & Wassenaar, 2015; Boxall & Macky, 2009; Kehoe & Wright, 2013; Vandenberg, Richardson, & Eastman, 1999).

Prior studies have investigated how the effects of proactive personality are subject to factors other than high-involvement HR practices. For instance, Pan et al. (2018) noted that the extent to which an employee's proactive personality promotes creativity is contingent upon the leader's formal influence, which directs resource deployment. Similarly, Joo and Ready (2012) found that proactive personality interacts with leader–member exchange quality to impact career satisfaction. Although this research helps shape our understanding of the effects of proactive personality, the literature suggests that we must also focus on the moderating role of high-involvement HR practices. Compared with social influence factors such as leadership style, leader–member exchange quality, and organizational climate, an organization's high-involvement HR practices have a direct impact on employees' work environment. As part of high-involvement HR practices, employees enjoy greater flexibility to change tasks, negotiate job content, and assign meaning to their work. More importantly, high-involvement HR practices help employees realize their

proactive potential with or without the presence of a formal leader or a strong organizational climate (Bakker et al., 2012). For all these reasons, we focus our attention on high-involvement HR practices in the present paper.

High-involvement HR practices can moderate proactive individuals' ability to thrive in a number of ways. For instance, proactive individuals prefer a certain degree of autonomy to engage in exploratory behaviors, and they are more likely to engage in such behaviors when the company emphasizes job discretion or provides them with substantial information relevant to their jobs. They are also more likely to search for and develop positive relationships with coworkers and supervisors when the company emphasizes the use of teams or de-emphasizes status differentials. Therefore, the more employees perceive the presence of high-involvement HR practices, the more likely they will be to thrive at work.

H2: The perceived presence of high-involvement HR practices positively moderates the relationship between proactive personality and thriving at work.

Methodology

Data and Sample

We used a questionnaire-based survey to collect data from employees and their managers in nine organizations located in western China. Of these nine firms, six operate in the information technology industry, two conduct business in the financial sector, and one serves the healthcare industry. The questionnaire comprised two parts. One part was given to employees and included questions regarding proactive personality, thriving at work, and HR practices. The other part was given to the employees' managers and included questions regarding the employees' creative behavior.

To mitigate common method bias, we followed the path suggested by Podsakoff, MacKenzie, and Podsakoff (2012) and used different sources to measure the criterion and predictor variables. The predictor variables were obtained from the employees, while the criterion measure was obtained from their supervisors. Additionally, to reduce respondents' tendency to provide biased responses, we included a cover letter ensuring them that their responses would stay anonymous and that there were no correct or incorrect answers (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). We also tried to provide a psychological separation between the variables by adding instructions such as “the following questions are not related to the previous set of questions.”

Initially, 645 employees were recruited for this study. However, after excluding those respondents for whom we could not obtain data from their managers, we obtained a final

sample of 438 respondents (response rate = 68%). When we conducted a group mean comparison between the samples with and without managerial data to examine any systematic differences, we found that attrition was not selective. The ages of the respondents ranged from 20 to 65 years, with a mean age of 33.7 years ($SD = 9.9$). Out of the 438 participants, 243 (55%) were male and 195 (45%) were female. In terms of education, the majority of the sample (66%) had a bachelor's degree or higher. The length of their job tenure ranged from 1 to 31 years, with a mean tenure length of 6.3 years ($SD = 5.5$). Participants were not asked whether the job required them to be creative, but they primarily worked in competitive business environments where creativity is usually welcomed as a means to improve efficiency. Furthermore, respondents held a broad number of non-managerial professional and clerical occupations, with about 53% of them working in the IT sector (e.g., web developers, IT support specialists), 29% working in the financial sector (e.g., bank tellers, loan officers, data processing specialists), and 18% working in a healthcare facility (e.g., doctors, nurses).

Measures

Respondents rated all the items on a 7-point Likert scale (from 1 = strongly disagree to 7 = strongly agree). Employee thriving, high-involvement HR practices, and proactive personality were self-reported by employees. Employees' creative behavior was rated by their supervisors. All scale items were originally in English, and we translated them to Chinese by using Brislin's (1970) standard back-translation method to ensure the equivalency of meaning.

Thriving at Work We measured employee thriving at work with eight items developed by Porath et al. (2012). This scale is appropriate because it measures both subdimensions of thriving: learning and vitality. As such, we conducted a second-order confirmatory factor analysis (CFA) to examine the dual-factor structure of this construct. In this analysis, learning and vitality are first-order factors, and thriving is the second-order factor. To determine the model fit, we used several indices: chi-square divided by the degrees of freedom (χ^2/df), the comparative fit index (CFI), the Tucker–Lewis index (TLI), and the root-mean-square error of approximation (RMSEA). A model is considered to have an acceptable fit when it has CFI and TLI values greater than 0.90 (Hu & Bentler, 1999), an RMSEA value less than 0.08 (MacCallum, Browne, & Sugawara, 1996), and a χ^2/df value less than 3 (Schermelele-Engel, Moosbrugger, & Müller, 2003). The results of our CFA showed that the model had an acceptable fit, with CFI = 0.983, TLI = 0.974, RMSEA = 0.064, and $\chi^2/df = 50.39/18 = 2.8$, confirming the theoretical expectation of thriving as a higher-order factor of learning and vitality. Sample items for this construct are “At my workplace,

I often find myself learning new things” and “I have energy and spirit at work.” The Cronbach's alpha for the thriving scale was 0.91.

High-Involvement HR Practices We measured high-involvement HR practices by using seven items representing seven HR practices that are considered to promote employee involvement (Boxall & Macky, 2009): job discretion, information sharing, training, low-status differentials, teamwork, incentive compensation, and performance-based bonuses. Employees were asked questions about these HR practices because their perceptions of HR practices are temporally closer to—and more predictive of—their attitudes and behaviors (Kehoe & Wright, 2013). The seven-item scale included four items developed by Kehoe and Wright (2013) and three items developed by Macky and Boxall (2007). Sample items include “Employees in this job are allowed to make important work-related decisions such as how they do the work” and “My employer provides me with sufficient opportunities for training and development.” The Cronbach's alpha for the high-involvement HR practices scale was 0.89.

Proactive Personality We measured proactive personality by using 10 items developed by Seibert, Crant, and Kraimer (1999), as a shortened form of the original scale developed by Bateman and Crant (1993). Sample items include “I am constantly on the lookout for new ways to improve my life” and “If I see something I don't like, I fix it.” The Cronbach's alpha for this scale was 0.91.

Creative Behavior We measured creative behavior by using six items developed by (Zhou & George, 2001). Sample items include “Suggests new ways to achieve goals or objectives” and “Comes up with new and practical ideas to improve performance.” The Cronbach's alpha for this scale was 0.93. Table 1 provides a list of all the items used to measure our variables.

Control Variables The study also included age, gender, and education as control variables, as they have been found to affect employee creative behavior in certain settings (Frosch, 2011; Sauerermann & Cohen, 2010). Age was measured in years, while gender and education were included as dummy variables (gender: male = 0 and female = 1; education: high school or less = 0, technical/associate degree = 1; bachelor's degree = 2, master's degree = 3; Ph.D. or other terminal degree = 4).

Common Method Bias Testing

Using the SPSS statistical software (IBM Corp, 2017), we conducted Harman's single-factor test to examine the data for common method variance (Podsakoff et al., 2003). The

Table 1 Correlation matrix and descriptive statistics

	Mean	S.D.	α	1	2	3	4	5	6	7
1 Creative behavior	4.66	1.41	0.93	(0.68)						
2 Thriving at work	5.09	1.29	0.91	0.49	(0.52)					
3 High-involvement HR practices	4.75	1.56	0.89	0.36	0.49	(0.53)				
4 Proactive personality	5.10	1.22	0.91	0.24	0.38	0.47	(0.51)			
5 Age	33.67	9.89	—	0.07	0.13	0.02	− 0.02	—		
6 Gender (dummy)	0.45	0.50	—	− 0.01	0.10	0.16	0.10	0.08	—	
7 Education (dummy)	1.86	0.99	—	0.10	0.13	0.17	0.05	0.08	0.01	—
Composite reliability				0.93	0.90	0.89	0.91	—	—	—

Notes: AVE is shown in diagonal. Values in italics are not statistically significant at the 0.05 level. Gender dummy variable consists of 0 = male and 1 = female. Education dummy variable consists of 0 = high school degree or less, 1 = technical/associate degree; 2 = bachelor’s degree, 3 = master’s degree; 4 = Ph.D. or other terminal degree

variables were submitted to a factor analysis, requesting an unrotated factor solution. If no single variable accounts for more than 50% of the variance, then it can be assumed that the data are not likely to suffer from common method variance. In our study, the total variance explained by one variable was 29.4%, well below the threshold. Therefore, we are fairly certain that our data do not suffer from common method variance.

Validity and Reliability

The remainder of the analysis was conducted by using the MPlus statistical software (Muthén & Muthén, 2017). A CFA with all items loading on their respective factors was conducted to determine the validity of the variables. The fit indices of the CFA indicated a good model fit: CFI = 0.932, TLI = 0.924, RMSEA = 0.050, and $\chi^2/df = 1056.48/505 = 2.092$. Additionally, the cutoff point for the factor loadings was set to 0.5, as items with loadings higher than this value are considered to be *practically* significant (Hair, Black, Babin, Anderson, & Tatham, 2006). No items were dropped, as all of them had loadings higher than 0.5, thus showing good convergent validity. We also assessed the discriminant validity of the variables by comparing the average variance extracted (AVE) for each of the constructs, with every correlation involving such construct (Fornell & Larcker, 1981). The AVE values were all greater than the respective correlations for each construct, so the data passed the discriminant validity test.

We assessed the reliability of the scales using Cronbach’s alpha and composite reliability. A scale is considered to have good reliability when the alpha coefficient is 0.7 or higher (Churchill, 1979); all the constructs in the current study had alpha coefficients higher than 0.7. Additionally, the constructs had composite reliability values higher than 0.7, indicating that the model has good reliability (Fornell & Larcker, 1981).

Table 1 provides the correlation matrix and descriptive statistics for all the constructs included in the study.

Results

We tested our hypotheses using structural equation modeling (SEM) with robust maximum likelihood estimation. Hypothesis 1 proposed a mediating role for thriving at work in the relationship between proactive personality and creative behavior. To test this hypothesis, we used the bootstrapping method to construct confidence intervals for the indirect effect (Preacher & Hayes, 2004), which is the recommended method for testing mediation variables (MacKinnon, Cox, & Baraldi, 2012). The bootstrapping method consisted of 1000 repeated “samples,” which were used to obtain 95% confidence intervals for the direct, indirect, and total effects of proactive personality on creative behavior. The analysis showed that the direct effect had a 95% confidence interval from − 0.056 to 0.168, the indirect effect had a 95% confidence interval from 0.119 to 0.260, and the total effect had a 95% confidence interval from 0.132 to 0.341. From these results, it can be observed that the 95% confidence interval for the direct effect passes through 0, while the 95% confidence interval for the indirect effect does not, suggesting a full mediation of thriving at work. Therefore, hypothesis 1 was supported.

Next, we introduced the moderating variable into the model to test hypothesis 2. This hypothesis proposed that high-involvement HR practices would positively moderate the link between proactive personality and thriving at work. The SEM result confirmed this moderating effect ($\beta = 0.24, p < 0.001$), explaining 40% of the variance in thriving at work and 26% of the variance in creative behavior. Table 2 provides the SEM results, while Fig. 2 depicts the final model.

We also performed a simple slope analysis to further examine the moderating effect of high-involvement HR

Table 2 Empirical SEM results

	Base model		Model 1		Model 2	
	Coefficient	S.E.	Coefficient	S.E.	Coefficient	S.E.
Control effects						
Age → creative behavior	0.07	0.05	0.07	0.05	0.02	0.04
Gender → creative behavior	−0.01	0.05	−0.03	0.05	−0.04	0.04
Education → creative behavior	0.09 [†]	0.05	0.08 [†]	0.05	0.05	0.05
Main effect						
Proactive personality → creative behavior			0.24***	0.05	0.05	0.06
Thriving at work → creative behavior					0.48***	0.06
Proactive personality → thriving at work					0.28***	0.06
Moderator's interaction effect						
High-involvement HR practices × proactive personality → thriving at work					0.24***	0.06
Adjusted R^2 —creative behavior	0.01		0.24		0.26	
Adjusted R^2 —thriving at work					0.40	

S.E., standard error;

*** $p < 0.001$

[†] $p < 0.10$

practices on the proactive personality–thriving relationship. As Fig. 3 shows, the relationship between proactive personality and thriving at work was stronger when the perception of high-involvement HR practices was high (effect = 0.54; SE = 0.07; 95% CI: 0.41 to 0.69) rather than low (effect = 0.003; SE = 0.06; 95% CI: −0.11 to 0.12).

Discussion

Creative behavior is a complex behavior affected by various factors at different levels, such as the individual or organizational level (Anderson et al., 2014). Referring to the componential theory of creativity (Amabile, 1983, 2013), the current investigation examined the link between proactive personality and creative behavior, with thriving at work acting as a

mechanism underlying this link and the perceived presence of high-involvement HR practices acting as a moderator of the link between proactive personality and thriving at work. By conducting SEM analysis, we tested and confirmed that an employee's perception of thriving at work is highly related to his or her degree of creativity. This result is consistent with previous studies in creativity and innovation (e.g., Carmeli & Spreitzer, 2009; Kleine et al., 2019; Wallace et al., 2016), which consider thriving at work to be an important psychological state for employees who exhibit innovative behaviors.

More importantly, the current study found that the psychological state of thriving mediates the link between proactive personality and employee creative behavior. This finding is also in line with previous studies that consider thriving at work to act as a channel for translating dispositional traits into creative behaviors (e.g., regulatory foci; Wallace et al., 2016).

Fig. 2 SEM results. Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, ns, non-significant

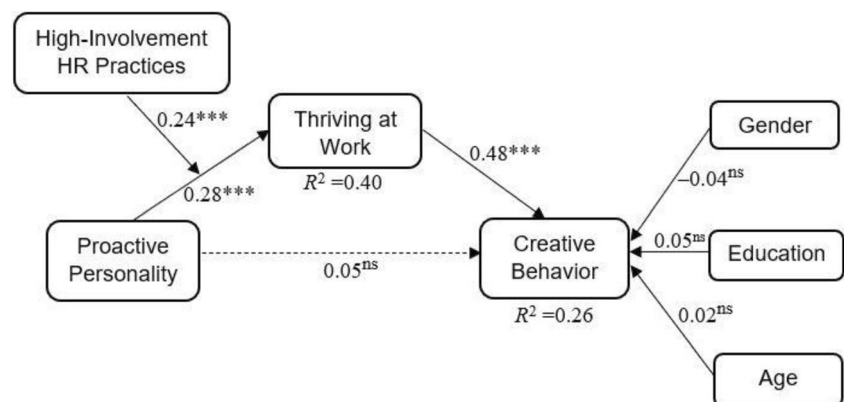
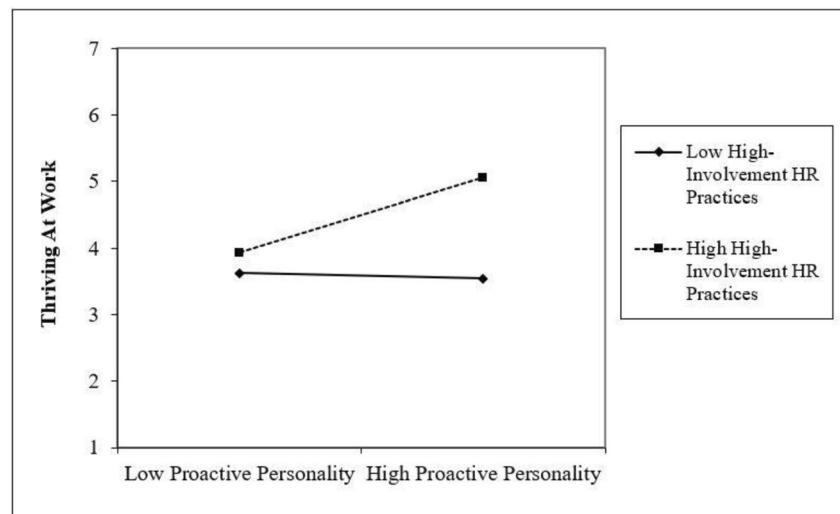


Fig. 3 Two-way interaction between proactive personality and high-involvement HR practices in predicting thriving at work



Lastly, the study tested the moderating role of high-involvement HR practices on the link between proactive personality and thriving at work. The results showed that the perceived presence of high-involvement HR practices in the organization enhanced the tendency of proactive individuals to thrive at work.

Implications for Theory and Practice

The findings of this investigation have valuable theoretical and practical implications. First, the study makes an important contribution to the creativity literature. Prior studies have found that proactive individuals tend to exhibit higher levels of creative behaviors (e.g., Kim et al., 2009; Seibert et al., 2001). However, few studies have sought to explain *how* this effect happens. Responding to recent calls to bridge this gap (Anderson et al., 2014; Liu et al., 2017), the current study shows that employee thriving at work plays an important mediating role in this relationship. We found that proactive employees are more likely to learn and be energetic at work, which results in them demonstrating a higher degree of creativity. When they thrive at work, employees are able to accumulate more domain-related knowledge and a higher motivation, both of which are necessary for creativity to occur (Amabile, 2013).

Additionally, our study contributes to the understanding of *what* promotes employee thriving at work. Prior research has emphasized that agentic work behaviors contribute to employee thriving at work (Paterson, Luthans, & Jeung, 2014; Spreitzer et al., 2005). Building on this extant research, we found that proactive people are more likely to experience thriving at work because they tend to engage in agentic work behaviors by exercising control over their own life and environment.

Lastly, our study sheds light on the question of *when* proactive employees might be more likely to experience thriving at work. Consistent with trait activation theory (Tett & Guterman, 2000), our study found that proactive employees are more likely

to thrive at work, but this phenomenon seems to arise only when employees perceive the existence of a supportive organizational climate. Thus, the presence of high-involvement HR practices activates and enhances the employee's potential to thrive at work and, subsequently, to engage in creative behavior. This finding is also in line with the results of other studies that have examined the relationship between proactive personality and employee behaviors that promote organizational success. For instance, Li, Harris, Boswell, and Xie (2011) found that proactive individuals demonstrate higher work performance when they perceive a high degree of developmental feedback, while Li, Liang, and Crant (2010) found that proactive individuals are more likely to exhibit OCBs when they perceive a high degree of procedural justice in the workplace.

This study also has valuable practical implications. Our findings suggest that organizations interested in developing a more creative work environment would benefit greatly by employing individuals with proactive personalities. At the same time, such organizations must provide these individuals with the necessary tools to help them thrive at work. According to our findings, even though individuals with a proactive personality are more likely to thrive, the degree of thriving is not uniform among them, but rather is moderated by the degree of involvement in decision-making enjoyed by employees. Thus, companies can build a more creative workforce by adjusting their HR practices to promote a high degree of employee involvement, which will facilitate employees' thriving at work. For instance, HR managers could implement a number of HR practices that promote job autonomy, training, information sharing, and performance-based rewards, among others.

Limitations and Recommendations for Future Research

Despite its significant contributions, our study is not without limitations. First, this study is based on a cross-sectional

design. Thus, even though the model was built on a solid theoretical basis, the cross-sectional nature of the study inhibits us from empirically proving causality. For instance, thriving and the resources that promote thriving could operate in a feedback loop, thereby promoting future thriving (Spreitzer et al., 2010). Future studies that utilize a longitudinal design might potentially better explain the nature of causality for these variables.

Additionally, the sample used for this study included only employees in China. As such, the generalizability of the results may be limited to that country, as cultural differences may affect employee creativity. For instance, the risk-taking proclivity of an individual has been found to positively contribute to the individual's creativity (Jiang, 2017). However, certain cultures shape individual personalities to be more risk-averse than other cultures do (Hofstede, 2001), which may affect an individual's creative behavior. To address this issue, future studies could examine the effects of individual and contextual factors by implementing a cross-national design.

We also note that the current study examined proactive personality as a one-factor construct. However, recent research suggests that proactive personality may be conceptualized as a multifactor construct. For example, Belwalkar and Tobacyk (2018) found that proactive personality is composed of three dimensions: perception, implementation, and perseverance. While the current study focused on the mechanisms underlying the link between proactive personality and creative behavior, rather than on how various facets of proactive personality are related to creative behavior, future research might find it worthwhile to examine, for example, the differential effects of these three dimensions on employee creative behavior. Similarly, future studies might compare proactive personality with more specific personality traits in terms of their relationship with creative behavior. For instance, given that openness to experience is related to creative behaviors (Silvia, Nusbaum, Berg, Martin, & O'Connor, 2009), future studies could compare proactive personality with facets of this personality trait, such as involvement in varied experiences or pursuit of cultural or intellectual interests (Wainwright, Wright, Luciano, Geffen, & Martin, 2008).

Lastly, even though this study examined a combination of individual and contextual factors in further explaining the link between proactive personality and creative behavior, other factors not covered in this investigation may potentially promote or hinder creativity. For instance, given that leadership style can influence employees' tendency to perceive a company's intended HR practices (McDermott, Conway, Rousseau, & Flood, 2013), future studies could adopt a more relational perspective and examine how different leadership styles or the subordinate–supervisor relationship influences the degree to which individuals thrive and demonstrate creativity at work. Furthermore, future research could focus on how different dispositional traits interactively influence

creative behavior. For example, the study by Bajaba, Fuller, Marler, and Bajaba (2018) found that the link between proactive personality and job performance is weaker when the degree of trait mindfulness is high. In addition, researchers might examine how proactive individuals' degree of political skill influences them in manifesting their personality tendencies as behaviors. Proactive individuals do not necessarily possess political skills. In fact, Sun and van Emmerik (2015) found that proactive personality is negatively related to supervisors' evaluations when political skill is low. Therefore, future studies might fruitfully examine the interaction of proactive personality and political skill on various supervisor-rated outcomes such as employee creativity.

Likewise, organizational factors such as ethical climate and organizational culture could influence the relationship between proactive personality and thriving at work. An organization's ethical climate, which encompasses the moral atmosphere of the work environment, has a direct impact on how employees conduct their daily business operations. Given that proactive employees tend to gain control over their work environment, the way they try to alter this environment may be influenced by the organization's moral climate. In a similar vein, organizational culture—that is, the collective underlying beliefs and assumptions widely held within an organization—might affect proactive employees by altering their environment-controlling motivation or behaviors. Overall, research in this area of the management literature can offer further meaningful practical implications for both employees and the organizations.

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