



Ruling with a velvet glove: The catalyzing role of humble leadership in transforming employees' empowerment role identity into proactivity

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Abstract

Employees have always striven for a sense of empowerment while employers endeavor to forge a more proactive workforce that will strengthen organizations. However, the possible link between empowerment and proactivity, as well as the influence of other factors, has seldom been explored. This study fills this gap by examining how humble leadership can help employees with empowerment role identity to further strengthen their vitality and ultimately elicit proactive behavior. Using data collected from a sample of 326 employee-supervisor dyads in the information and communications technology (ICT) industry in China, we argue that employees' vitality mediates the positive correlation between their empowerment role identity and proactive behavior. In light of the Johnson-Neyman technique, this study further indicates that the relationship between empowerment role identity and employee vitality is significantly positive when humble leadership is rated above 5.195 on a 7-point Likert scale; however, this relationship turns negative when humble leadership drops below 1.429. Thus, humble leadership moderates the mediating role that vitality plays in helping employees with empowerment needs to achieve greater proactivity. These findings deepen our understanding of how subordinates with relatively high power demands and enthusiasm can be effectively motivated in the workplace.

Keywords

Employee vitality, Empowerment role identity, Humble leadership, Proactive behavior, Self-determination theory

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Introduction

Researchers have found that traditional “top-down” human resources management approaches, in which supervisors' main interaction with employees is to decree formal orders to them, are no longer sufficient in the rapidly changing work environment and are, in fact, detrimental to maintaining an efficient organization (Weick, 2001). An opposite approach, that is, “bottom-up” management, which promotes employees' autonomy in identifying problems, proposing potential solutions, and contributing to the business' decision-making practices, has been increasingly embraced by a growing number of organizations. In this decentralized style of management, employees at all levels play a role in the organizational process, and organizations are believed to benefit from getting the most out of their employees' talent and dedication. On this matter, a growing number of

scholars have found that “proactivity” or “proactive behavior” on the part of employees is essential to the practice of this “bottom-up” human resources management theory. First proposed to respond to turbulence within an organizational environment, employees' proactive behavior refers to their self-discipline, responsibility, and creativity when attempting to overcome new and unexpected workplace

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obstacles in the absence of any direction from leaders (e.g. Parker & Collins, 2010; Parker et al., 2006). The ultimate goal is to inspire employees to develop both a sense of belonging and commitment to the organization in order to enhance their sense of self-fulfillment at work (Meijerink et al., 2020; Wu et al., 2018).

Developing a proactive workforce, however, is easier said than done. Although researchers emphasize its importance in increasing an organization's overall competitiveness (e.g. Bateman & Crant, 1993), one of the most challenging managerial tasks facing employers is to pinpoint specific approaches to kindle proactivity. In recent studies, at the organizational level, work autonomy, guidance from managers, non-authoritarian leadership style, and mutual support among colleagues are all considered antecedents of proactive behavior (Den Hartog & Belschak, 2012; Ohly & Fritz, 2010; Parker et al., 2006). At the individual level, an employee's personality, knowledge, skills, capacity, and attachment style are considered (Frese & Fay, 2001; J. P. Thomas et al., 2010; Wu & Parker, 2012). A common conclusion is that both organizational and individual factors contribute to proactive behavior (Ahearne et al., 2005; K. W. Thomas & Velthouse, 1990). Unfortunately, these explorations have seldom been extended to "empowerment role identity" and its possible correlation with employee proactivity. Defined as "the extent to which an individual views him/herself as a person who wants to be empowered in a particular job" (Zhang & Bartol, 2010, p. 111), empowerment role identity is indeed powerful in predicting an individual's behavioral pattern that is congruent with his/her empowerment identity.

In particular, the key finding that underlies empowerment role identity is that employees hope to not only obtain more resources and information from the organization, but also to have more autonomy and influence in decision-making (Anderson et al., 2012; Keltner et al., 2003). Empowerment role identity is the underlying force that drives employees' efforts to acquire, conserve, and maintain valuable organizational resources that were previously completely controlled by their leaders (Bakker & Demerouti, 2017). Since empowerment role identity involves carrying out an empowerment role with a view to enhancing one's autonomy and impact, it is reasonable to suggest that it can have positive effects on employees' proactive behavior. Thus, our overarching research objective is to explore the specific mechanisms through which situational factors affect the correlations between empowerment role identity and proactive behavior. In doing so, this study makes a valuable attempt to fill the research gap regarding the potentially important role played by empowerment role identity in cultivating proactive work behavior.

Additionally, one key notion underlying the concept of empowerment role identity is that an employee with a high empowerment role identity is intrinsically motivated to spontaneously and passionately devote to his tasks at the workplace. This type of work status is well encapsulated

by another important concept: employee vitality. Conceptualized as "a dynamic phenomenon, pertaining to both mental and physical aspects of functioning and thus referring to a person who is vital as energetic, feeling alive, and fully functioning" (Ryan & Bernstein, 2004, p. 274), employee vitality is a significant indicator of the psychological and physical well-being of an employee (Ryan & Frederick, 1997). Prior studies have found that vitalized employees are more proactive (Shirom, 2010), creative (Atwater & Carmeli, 2009), and are more likely to achieve career success (Hennekam, 2016). Following this logic, it is reasonable to envision that an employee with an empowerment role identity exhibits greater vitality at work, which further triggers proactive behavior. Hence, this study delves into the mediating role played by employee vitality in influencing the relationship between empowerment role identity and proactive behavior.

Furthermore, it is widely acknowledged that leadership style plays an essential role in determining organizational performance (Wu & Parker, 2012). Various management styles create different experiences for employees, subsequently influencing their behaviors (Detert & Burris, 2007). Recently, humble leadership has attracted attention from emerging scholars. They argue that leaders with a high degree of humility tend to grant more substantial power and autonomy to employees, whose trust, respect, self-efficacy, and sense of belonging to the organization are subsequently heightened (Owens & Hekman, 2012). In other words, when leaders act humbly, employees develop a strong sense of empowerment. Employees with a high empowerment role identity will then be inspired to behave proactively in order to adapt to and overcome challenges within their workplaces. However, when there is a discrepancy between employers and employees regarding leaders' perceived humility, any positive outcomes stemming from empowerment role identity might be impeded or compromised. Therefore, the moderating effect of humble leadership on the mediating relationship between empowerment role identity and proactive behavior must also be explored.

Theory and hypotheses

Empowerment role identity and proactive behavior

According to the self-determination theory, empowerment role identity is much more important than the other "multiple selves" (McCall & Simmons, 1966; Stryker & Serpe, 1994) and can be understood as a kind of autonomous motivation, which can further be divided into intrinsic and extrinsic aspects to explain employees' behavior (Deci & Ryan, 1985). Intrinsic motivation refers to the natural propensity for independent learning and problem solving, while extrinsic motivation emphasizes self-regulation and self-control (Ryan & Deci, 2000a). In short, individual self-determination (i.e. intrinsic motivation) and self-management (i.e. extrinsic

motivation) are at the core of empowerment role identity (Zhang & Bartol, 2010). In other words, those with a strong empowerment role identity often have a strong sense of self-control and desire to obtain more decision-making power and influence in their organizations of employment (Dunbar & Abra, 2010).

Thus, it stands to reason that these employees are likely to be given sufficient resources and decision-making powers. Provided with a sense of empowerment and respect, they are motivated to take on more responsibilities, resulting in more proactive behavior. Fundamentally, it encourages future-oriented and innovative actions such as taking charge, identifying problems, and providing solutions (Crant, 2000). Some scholars even argue that proactive behavior can be thought of as “power-seeking behavior” (e.g. Anderson & Berdahl, 2002; Levine, 2010) because it is driven by a desire for autonomy and substantial influence within the organization (Parker, 1998).

Simply put, an employee with a high empowerment role identity tends to be more motivated to behave proactively to acquire and maintain resources for empowerment. These employees are then inclined to propose long-term and creative solutions to unexpected difficulties. In other words, employees’ empowerment role identity can trigger higher proactivity and problem-solving. Therefore, we propose the following hypothesis.

H₁: Employees’ empowerment role identity is positively related to proactive behavior.

The mediating role of employee vitality

While power seeking plays a pivotal role in determining whether an employee translates his or her need for empowerment into proactive behaviors in practice, it must also be acknowledged that an employee’s work motivation may either cultivate or impede his or her ability to acquire power and authority within an organization. Employee vitality, which refers to an individual’s feeling of physical strength, emotional energy, and cognitive liveliness (Shirom, 2011), is likely to be a key factor in channeling an employee’s empowerment need into proactive behaviors. Some empirical studies have shown that employee vitality is of great importance for developing a sense of self-fulfillment and pride in one’s work, thus facilitating more autonomous motivation (Spreitzer et al., 2005). Employees with strong autonomy are bound to be very conscientious about their work, that is, they seek new knowledge and skills, actively explore potential solutions to problems, and aspire to make greater contributions to their organization (Nix et al., 1999; Spreitzer et al., 2012). As previously mentioned, empowerment role identity inspires employees to strive for autonomy, which creates vitality for their work (Gagné et al., 2015). Those with a high sense of empowerment are often granted greater independence in decision-making and are

encouraged to participate in team projects, which further inspires enthusiasm for work (Islam & Zyphur, 2005).

Therefore, vital employees are more likely to exhibit proactive behavior. A positive attitude toward work indeed brings about a desire for personal growth and progress, motivating employees to perform better (Spreitzer et al., 2005). Furthermore, employee vitality not only helps workers stay motivated with regard to career planning (Hall, 1996) but also generates benefits for the entire organization (Pfeffer, 2010). Researchers have found that vitality can improve an employee’s self-efficacy, encourage job responsibility, and support innovative problem-solving (Maslach, 2003; Parker, 1998).

In sum, we believe that vitality creates a bridge between empowerment role identity and proactive behavior. Employees with empowerment role identity tend to have a strong motivation to increase their vitality and are subsequently inclined to increase their proactivity at work to fulfill their power-seeking goals. In other words, employee vitality can mediate the relationship between empowerment role identity and proactive behavior. Thus, we propose the following hypothesis.

H₂: Employee vitality mediates the relationship between empowerment role identity and proactive behavior.

The moderating role of humble leadership

Apart from the interplay between attitudes and behaviors, it must also be acknowledged that the organizational environment may cultivate or detract from individuals’ capacity to acquire the resources needed for career advancement. Numerous empirical studies have shown that employee enthusiasm is influenced to various degrees by the organizational environment (e.g. Scott, 1995), within which leadership style is a key factor (Detert & Burris, 2007). Employers who exhibit more autonomy, competence, and relatedness can inspire a greater level of participation and contribution from their employees (Ryan & Deci, 2017). Following this line of thought, employees are more self-motivated and participatory when employers are willing to delegate power. In contrast, employees tend to lose their motivation and are less willing to participate when employers are authoritarian and inflexible (Gagné & Deci, 2005). Therefore, we may conclude that leadership style, specifically how power is shared and tasks are allocated, plays a key role in determining employees’ work styles and performance (Bakker & Demerouti, 2017; Den Hartog & Belschak, 2012). More importantly, an effective leader can strengthen employees’ work satisfaction, which further increases vitality (Detert & Burris, 2007; Spreitzer & Porath, 2014). Thus, the key question is which leadership style is the most effective in motivating employees.

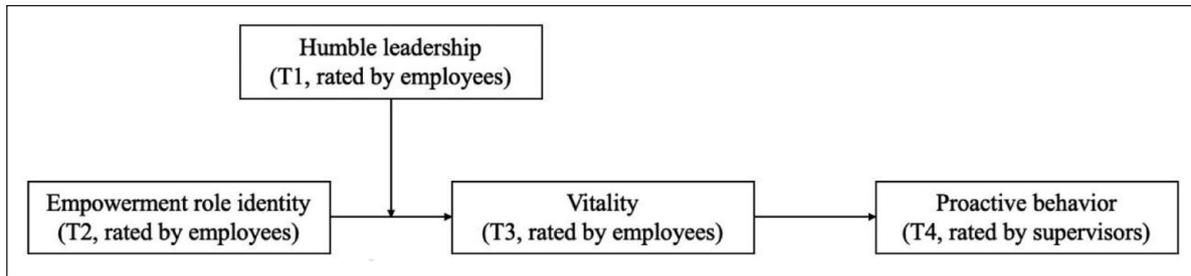


Figure 1. Theoretical model.

In recent years, scholars have found humble leadership to be a particularly effective style that encompasses a willingness to listen to the views of others, value their opinions, and acknowledge their feelings (Owens & Hekman, 2012). Through such an attitude, supervisors show their trust and respect for their subordinates and motivate them (Vera & Rodriguez-Lopez, 2004). Consequently, employees, especially those with a high empowerment role identity, perform even more efficiently because of greater work autonomy (Zhang & Bartol, 2010). For instance, researchers have long recognized that the core of humility is to be able to distinguish the “self/insiders” from the “other/out-siders” orientation (Greenleaf & Spears, 2002; Morris et al., 2005; Nielsen et al., 2010). Specifically, employees whose supervisors show humility tend to believe that they are part of the organization and thus become more willing to participate. Therefore, humble leadership can raise employees’ self-awareness (Park & Peterson, 2003), who, in turn, are more likely to consider themselves co-producers with their supervisors and share their opinions, ideas, and suggestions for solving problems. Taken together, humble leadership tends to increase employee enthusiasm within the vertical communication process and subsequently enhances the positive relationship between empowerment role identity and employee vitality.

In summary, we believe that the positive relationship between empowerment role identity and vitality tends to be strengthened when the level of humble leadership is high. However, if it is low, the relationship between these two factors tends to be reduced or even negative, because of the perceived absence of sufficient self-awareness, respect, and work autonomy. Thus, we propose the following hypothesis.

H₃: Humble leadership moderates the relationship between empowerment role identity and vitality. When the former is high, the positive effect of the latter on employee vitality is expected to be stronger.

The moderated mediation model

In this study, we explored the following: (1) the mediating effect of employee vitality on the relationship between empowerment role identity and proactive behavior and

(2) the moderating function of humble leadership in the relationship between employment role identity and vitality. When we consider these processes simultaneously, we can reasonably hypothesize that humble leadership moderates the mediating effect of employee vitality on the relationship between employee empowerment role identity and proactive behavior. Thus, a first-stage moderated mediation model can be established, as shown in Figure 1.

In other words, when the level of humble leadership is high, employees with a developed empowerment role identity tend to be inspired, more enthusiastic, and exhibit higher-quality proactive behaviors. However, when this variable persists at a low level, the proactivity potential of employees with a high empowerment role identity is left untapped. Trapped in an undesirable working environment, they are unlikely to be motivated by their limited autonomy and encouragement. Under some circumstances, their desire for empowerment can even be a liability (e.g. when it is unfavorably interpreted by leadership). Simply put, in certain circumstances, the empowerment role identity of employees can be negatively related to their proactive behavior due to undermined vitality. Thus, the following hypothesis is postulated:

H₄: Humble leadership moderates the mediating effect of vitality on the relationship between the empowerment role identity of employees and their proactive behavior. When humble leadership is high, we expect a stronger positive effect of empowerment role identity on proactive behavior through employee vitality.

Data and methods

The data analyzed in this study were collected from 13 private information and communications technology (ICT) firms in Beijing and the Jiangsu province of China. Due to the accelerated growth of the telecommunications industry in China, these selected firms are in dire need of innovative employees capable of managing the ever-changing global challenges. The company leaders expressed to us their wish to encourage proactivity among their employees to promote bottom-up innovation. Interestingly, the majority of the

personnel in these firms are very young and likely to be more motivated to obtain an empowerment role identity than their senior colleagues. It is, therefore, critical for management to better accommodate the needs of these employees in order to first achieve better proactivity at the individual and ultimately at the organizational level. Representatives from the respective human resources departments randomly chose work units for involvement in this project. A total of 69 teams and 539 employees participated in this study. They were then invited to complete the survey anonymously. Each participant was assigned a unique code for the data-matching process. They were then sent a link to a survey that they could complete on either their mobile devices or personal computers.

To minimize common-method bias, data were collected from four different periods for a total of 20 days to include employees' self-reported evaluations as well as their direct supervisors' ratings. In the first stage, a survey measuring their immediate supervisors' levels of perceived humble leadership was sent to 69 teams with 539 employees, for which 439 valid responses were received. In Stage 2, 407 employees responded to a survey measuring their degree of empowerment role identity. Stage 3 consisted of sending a survey to measure the extent of employee vitality, from which 367 valid responses were collected. In Stage 4, 69 team leaders were asked to rate their employees' proactivity, yielding 363 valid responses. As individual identifiers were assigned to all participants, we were able to match these codes with the employees' self-reported survey data to obtain a total of 346 employee participants. Ultimately, 326 paired responses were obtained, yielding a net response rate of 60.5%.

In the overall dataset, half of the respondents were female, and the average age of respondents was 29.347 years old ($SD=5.407$). The average number of years working at the organization was 3.867 ($SD=3.317$), and the length of time employees had been working with their supervisors was 3.252 years ($SD=2.892$). More than half of the respondents had earned a bachelor's degree, and the rest held either junior college diplomas (40.5%) or postgraduate degrees (3.4%).

Variable measurements

The main variables in this study were empowerment role identity, humble leadership, employee vitality, and proactive behavior. The established scales with verified reliability and validity were used in this study. All variables were measured on a 7-point Likert scale ranging from strongly disagree (1) to strongly agree (7). Because the original scales were in English, we employed a translation-and-back-translation procedure to generate a Chinese version that retained all nuances of the original questionnaire items. A full description of the measurement scales of the variables is provided in the Appendix (Table A1).

Empowerment role identity

Zhang and Bartol's (2010) 4-item scale was used to measure empowerment role identity. Questions included but were not limited to "I have a clear concept of myself as an employee who wants to have greater decision-making power." All items were rated by the participants. Cronbach's alpha and McDonald's omega (ω) coefficients were .891 and .893, respectively.

Humble leadership

Owen et al.'s (2013) 9-item scale was used to measure humble leadership with questions such as, "My leader admits it when he/she doesn't know how to do something." The participants rated these items based on the behavior of their immediate supervisors, which yielded a Cronbach's α coefficient of .987 and McDonald's ω coefficient of .977.

Employee vitality. Four items from Porath et al.'s (2012) scale were adopted to measure this essential factor. Questions included but were not limited to "I feel alive and vital." As previously stated, all items were rated by the employees themselves, which yielded a Cronbach's α coefficient of .962 and McDonald's ω coefficient of .961.

Proactive behavior. Fuller et al.'s (2012) 6-item scale was utilized to measure employees' proactive behavior, which included questions such as *Employees often try to institute new work methods that are more effective for the company.* These items were assessed by the respective immediate supervisors of the employees. Cronbach's α coefficient and McDonald's ω coefficient for this item were both .969.

Notably, since a coefficient value above .7 is normally considered acceptable for both Cronbach's α and McDonald's ω (Lohr et al., 1996), the scales used in this research have exhibited strong internal consistency in measuring the underlying constructs. Additionally, to further test the reliability of these four measurement scales, item-total correlations and average inter-item correlations were calculated and a summary of all reliability statistics is presented in Table 1. According to BrckaLorenz et al. (2013), the corrected item-scale correlations should be greater than or equal to .5 to safely reach the conclusion that an item measures the same variable as the other included items. In this study, all item-total correlations ranged from .704 to .936, indicating that all scale items are significant contributors to the variables being measured. Besides, as recommended by Clark and Watson (1995), the average inter-item correlation should fall within the range of .15 to .50. In this study, admittedly, all scales have mean inter-item correlation values above the criteria, suggesting that the items are likely to be "redundant and the construct measured too specific" (Briggs & Cheek, 1986, p. 114). To evaluate the degree of the threat posed by high inter-item correlations to the reliability of the scales, we meticulously reviewed all adopted items and did not detect any obvious

Table 1. Reliability statistics of measurement scales.

| | Cronbach's α | MacDonald's ω | Range of corrected item-total correlations | Average inter-item correlations |
|---|---------------------|----------------------|--|---------------------------------|
| Measurements of empowerment role identity | .891 | .893 | .704–.893 | .673 |
| Measurements of humble leadership | .987 | .977 | .856–.936 | .831 |
| Measurements of employee vitality | .962 | .961 | .852–.929 | .863 |
| Measurements of proactive behavior | .969 | .969 | .881–.915 | .838 |

redundancy among them. Thus, we deemed this overvalued indicator not overly problematic and retained all current items in our subsequent data analysis.

Based on traditional methods utilized in similar studies (Arefin et al., 2015; Batistič et al., 2016; Crant, 2000; Qiu et al., 2015; Wu et al., 2018), respondents' gender, age, educational level, and years within the organization were set as control variables in this study. Although some variables at the organizational level, such as team size, may also play a role in influencing employees' proactive behavior, this study chooses to place only individual-level variables in the control variable list. The principal consideration underlying this choice is that all the main variables of interest are tested at the individual level and subject to fluctuations primarily caused by personal factors. Hence, mere control of individual-level variables is by and large convincing to generate solid results and rule out alternative explanations. Moreover, all information was collected from databases managed by personnel in the human resources departments in which the survey was conducted.

Data analysis

A series of confirmatory factor analyses (CFAs) were conducted to examine the discriminant validity of the four variables. Specifically, a 4-factor model (empowerment role identity, humble leadership, employee vitality, and proactive behavior) was compared with four 3-factor models, one 2-factor model, and one 1-factor model (see Appendix A for details on the construction of these models). According to the CFA results, shown in Table 2 below, not only were the model-fit indices of the 4-factor model ($\chi^2/df=2.254$, CFI=0.953, TLI=0.947, RMSEA=0.062, SRMR=0.032) able to reach the standards recommended by Hair et al. (2010), but they were also found to be statistically superior to the other models, implying a sufficient discriminant validity.

Virtual factors were also introduced as a supplementary analysis to determine the impact of common method bias (e.g. Podsakoff et al., 2003), which arises from self-assessed data on empowerment role identity, vitality, and leader humility. The results indicated no improvement in the model when the new virtual factor ($\chi^2/df=2.697$, CFI=0.943, TLI=0.932, RMSEA=0.072, SRMR=0.084) was added compared to the 3-factor model that included empowerment role identity, leader humility, and employee vitality

($\chi^2/df=2.626$, CFI=0.945, TLI=0.935, RMSEA=0.071, SRMR=0.030). The total variance in the virtual factors was very small (11.135%). Moreover, according to the CFA results, the factor loadings of the survey items were unvaryingly above 0.70, indicating high convergent validity of the latent constructs (Hair et al., 2010). Therefore, we conclude that common method variance is unlikely to pose a significant threat to the validity of our findings.

Table 3 shows the means, standard deviations, correlations, and Cronbach's alphas of all the variables in this study. Empowerment role identity and proactive behavior were not significantly positively related ($r=.035$, $p>.05$). However, empowerment role identity was positively related to vitality ($r=.273$, $p<.001$), which was also significantly positively related to proactive behavior ($r=.126$, $p<.05$). Humble leadership was significantly positively related to employee vitality ($r=.416$, $p<.001$). These descriptive statistics provide preliminary evidence to support our proposed hypotheses.

Modeling strategy

According to the previously proposed hypotheses, the equation models tested in this study were as follows: equations (1) and (2) represent the statistical diagrams of the mediation model of interest (ERI represents empowerment role identity, EV represents employee vitality, and PB represents proactive behavior). For the proposed mediating effect of employee vitality to be statistically substantiated, EV should be significantly correlated with both ERI and PB; the magnitude of the mediation effect is indicated by $a \times b$.

$$EV = aERI + e_1, \quad (1)$$

$$PB = cERI + bEV + e_2. \quad (2)$$

The moderating effect of humble leadership on the relationship of interest is reflected in equation (3) (HL stands for humble leadership): The moderating effect proposed by this research can be revealed by examining the coefficient of the interaction item between empowerment role identity and humble leadership (c in equation (3)).

$$PB = aERI + bHL + cERI \times HL + e_3. \quad (3)$$

Table 2. Results of discriminant validity.

| Models | χ^2 | df | $\Delta\chi$ | χ^2/df | CFI | TLI | RMSEA | SRMR |
|---|----------|-----|--------------|-------------|-------|-------|-------|-------|
| Hypothesized 4-factor model | 504.859 | 224 | – | 2.254*** | 0.953 | 0.947 | 0.062 | 0.032 |
| 3-Factor model I [empowerment role identity (ERI) combined with vitality (V)] | 1030.180 | 227 | 525.321*** | 4.538*** | 0.865 | 0.850 | 0.104 | 0.099 |
| 3-Factor model II [ERI combined with humble leadership (HL)] | 1037.971 | 227 | 7.791*** | 4.573*** | 0.864 | 0.848 | 0.105 | 0.097 |
| 3-Factor model III (HL combined with V) | 1536.902 | 227 | 498.931*** | 6.770*** | 0.780 | 0.755 | 0.133 | 0.107 |
| 3-Factor model IV [V combined with proactive behavior (PB)] | 2248.354 | 227 | 711.452*** | 9.905*** | 0.660 | 0.622 | 0.165 | 0.192 |
| 2-Factor model (ERI, HL, and V were combined together) | 2027.877 | 229 | –220.477*** | 8.855 | 0.698 | 0.666 | 0.155 | 0.137 |
| 1-Factor model (all variables combined together) | 3638.277 | 230 | 1610.400*** | 15.819*** | 0.427 | 0.370 | 0.213 | 0.225 |

Note. N=326.
***p < .001.

Table 3. Descriptive statistics, correlations, and reliabilities.

| Variables | M | SD | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|------------------------------|-------|-------|-------|---------|---------|---------|---------|---------|--------|--------|
| 1. Gender | 0.500 | 0.501 | | | | | | | | |
| 2. Age | 29.35 | 5.407 | .042 | | | | | | | |
| 3. Education level | 3.480 | 0.763 | .060 | .080 | | | | | | |
| 4. Tenure | 3.867 | 3.317 | .067 | .500*** | –.185** | | | | | |
| 5. Empowerment role identity | 5.392 | 1.114 | .034 | –.011 | .086 | –.058 | ((.891) | | | |
| 6. Humble leadership | 5.673 | 1.226 | .100 | –.108 | .100 | –.019 | .274*** | (.987) | | |
| 7. Vitality | 5.594 | 1.134 | .132* | –.045 | –.006 | –.009 | .273*** | .416*** | (.962) | |
| 8. Proactive behavior | 4.709 | 1.116 | –.106 | .156** | .080 | .251*** | .035 | .207*** | .126* | (.969) |

Note. The diagonal values in brackets are Cronbach’s α coefficients.
*p < .05. **p < .01. ***p < .001.

Prior to the analysis, all variables were mean centered. Then, the PROCESS macro by Hayes (2013) and bootstrap analysis (set to 5,000 replicates) were utilized in the SPSS software to examine the mediation and moderation effects at a confidence level of 95%.

Empirical results

Results of the mediating effect test

As shown in the Appendix (Table A2), the direct effect of empowerment role identity on proactive behavior was positive but insignificant ($\beta = .004$, LLCI = –0.104, ULCI = 0.112). When the mediator was present, *empowerment role identity* was positively correlated with employee vitality ($\beta = .277$, $p < .001$), which was also positively associated with proactive behavior ($\beta = .147$, $p < .001$). Thus, the role of vitality as a mediator is supported at a statistically significant level ($\beta = .041$, Boot LLCI = 0.012, Boot ULCI = 0.085). We further confirmed this mediating effect using the Sobel test, which revealed that the mediation effect of employee vitality was significant ($Z = 2.355$, $p < .05$). Hypothesis 2, stating that employee vitality mediates the relationship between empowerment role identity and proactive behavior, was therefore

substantiated. In other words, employees with a high empowerment role identity tend to maintain their on-the-job enthusiasm and are more likely to engage in proactive behavior.

Results of the moderating effect test

As shown in the Appendix (Table A3), the interaction between empowerment role identity and humble leadership resulted in a significant path coefficient ($\beta = .122$, LLCI = 0.045, ULCI = 0.199). At the same time, when this interaction term was added to the model, the change in the R² value was also noticeable. These results indicate the existence of a moderating effect exerted by humble leadership.

To examine the magnitude of the moderating effect of humble leadership on the relationship between empowerment role identity and employee vitality, we manipulated this moderator at various levels. As indicated in Table 4, when humble leadership was high (MEAN + SD), the effect of empowerment role identity on vitality was significantly positive ($\beta = .319$, $p < .001$). When adjusted to medium (MEAN), the relationship between employees’ empowerment role identity and vitality was significantly positive to a lesser extent ($\beta = .169$, $p < .01$). However, when a low value (MEAN – SD) was assigned to humble leadership, empowerment role

Table 4. Results of the moderated mediation effect.

| | Coefficient | SE | t-Value | p-Value | LLCI | ULCI |
|----------------------------|-------------|--------|-----------|-----------|-----------|-------|
| Direct effect | .004 | 0.055 | 0.070 | .945 | −0.104 | 0.112 |
| Humble leadership | | Effect | Boot SE | Boot LLCI | Boot ULCI | |
| Low HL (MEAN − SD) | | 0.003 | 0.014 | −0.025 | 0.034 | |
| Medium HL (MEAN) | | 0.025 | 0.013 | 0.006 | 0.061 | |
| High HL (MEAN + SD) | | 0.047 | 0.021 | 0.013 | 0.101 | |
| | Index | SE | Boot LLCI | | Boot ULCI | |
| Moderated mediation effect | 0.018 | 0.010 | 0.003 | | 0.045 | |

Note. $N=326$. Gender, age, educational level, and organizational tenure were controlled for. Empowerment, role identity, and humble leadership were mean-centered.

identity had no significant influence on vitality ($\beta=.020$, $p>.05$). Therefore, when humble leadership is low, an employee's empowerment role identity does not necessarily help him or her establish or maintain motivating relationships in the workplace. To visualize the significant moderating effect of leaders' humility, Figure 2 illustrates the effects of these two factors when leaders' humility is high (MEAN + SD) and low (MEAN − SD), respectively. The differing slopes of the two lines suggest that hypothesis 3 is supported.

Furthermore, we adopt the Johnson-Neyman technique to pinpoint the accurate regions of significance within which humble leadership can switch the relationship between empowerment role identity and employee vitality from significantly positive to insignificant, and even to significantly negative. Figure 3 shows the moderation range of humble leadership, in which the solid line is the regression line showing how the effect of empowerment role identity on employee vitality varies by humble leadership. The two curved dashed lines represent the 95% confidence bands and the two vertical dashed lines represent the boundary of the region of significance. The magic number for humble leadership was 5.195 (on a 7-point scale). When humble leadership is rated at 5.195 and above, employees with a higher empowerment role identity tend to achieve greater vitality. When humble leadership was rated between 5.195 and 1.429, the relationship between empowerment role identity and vitality became insignificant. When the humble leadership rating drops to 1.429 and below, empowerment role identity appears to be negatively correlated with employee vitality ($\beta=-.348$, $p=.05$). Clearly, only when humble leadership is strongly felt will employees with empowerment aspirations take action to make a difference. The full results derived from the Johnson-Neyman technique are presented in the Appendix (Table A4).

Results of the moderated mediating test

Finally, we investigated the moderating effect of humble leadership on the path from empowerment role identity to proactive behavior through employee vitality. The results are presented in Table 4. The index of moderated mediation,

which was used to determine whether the association between the mediated main effect and moderator was statistically significant, was adopted for confirmation purposes (Hayes, 2015). As predicted, the calculated index value was nonzero and significant (INDEX=0.018, LLCI=0.003, ULCI=0.045).

In addition, Table 4 shows the changes in the magnitude of the mediation effects when leaders' humility levels changed from low to high. Specifically, when humble leadership was high (MEAN + SD), the effect of employee vitality on the relationship between empowerment role identity and proactive behavior was found to be significantly positive ($\beta=.047$, LLCI=0.013, ULCI=0.101). When the employees have a medium (MEAN) level of humbleness, employee vitality still functioned as somewhat of a positive mediator ($\beta=.025$, LLCI=0.006, ULCI=0.061). However, when *humble leadership* was set at a low level (MEAN − SD), the mediation function of employee vitality disappeared, as evidenced by its insignificant slope coefficient ($\beta=.003$, LLCI=−0.025, ULCI=0.034). In sum, our results indicate that the extent to which employee vitality mediates the positive correlation between employment role identity and proactive behavior depends heavily on the perceived levels of humble leadership. Thus, Hypothesis 4 is supported.

Conclusion and discussion

Departing from self-determination theory, we conducted a multi-source study on ICT company workers in China to examine the mechanisms through which the empowerment role identity of employees influenced their levels of proactivity. The empirical results indicate that employee vitality plays a mediating role in the relationship between empowerment role identity and the proactive behavior of employees. In addition, humble leadership moderated this mediation effect. In other words, the extent of the positive correlation between empowerment role identity and employee vitality is contingent on the perceived levels of humble leadership. Only when such leadership is high will the positive effect of empowerment role identity on vitality be manifested. When employees perceive it to be low, the mediation effect of their



Figure 2. The moderating effect of humble leadership.

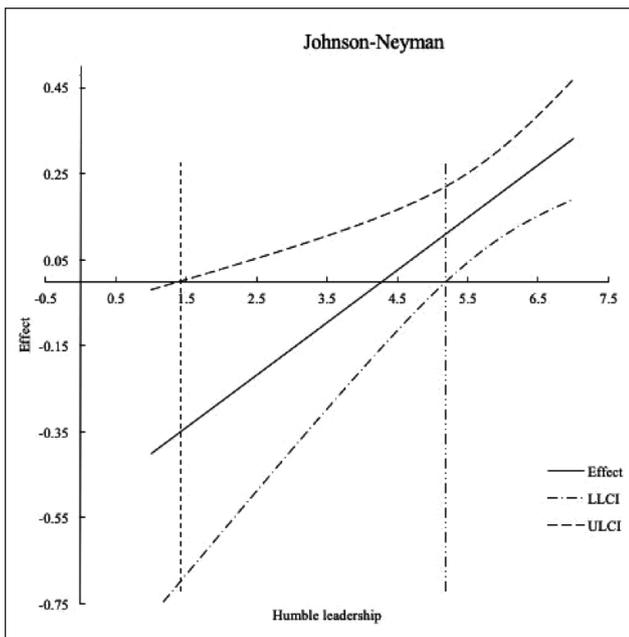


Figure 3. The moderation range of humble leadership.

vitality on the relationship between empowerment role identity and proactive behavior begins to wane. Overall, according to our findings, when granted a high level of empowerment in the presence of humble leadership, employees become strongly motivated, self-disciplined, responsible, and willing to proactively seek innovative solutions, even without any guidance from their supervisors.

Theoretical implications

The theoretical contributions of this study are threefold: First, it expands the academic exploration of proactive

behavior by exploring the antecedent factors that contribute to the enhancement of employees’ motivation to become proactive. Although proactive behavior has recently been recognized as a significant element of organizational development, most researchers still tend to focus on the direct effects of this focal variable (e.g. Chiaburu et al., 2007; Frese & Fay, 2001; J. P. Thomas et al., 2010; Wu & Parker, 2012; Zhang & Bartol, 2010). As a result, the exploration of their antecedents remains limited (e.g. Wu et al., 2018). Furthermore, in light of the self-determination theory, this study serves as an original attempt to determine the correlation between empowerment role identity and proactive behavior. The findings indicate that when the perceived level of humble leadership is high, employees with an empowered state of mind tend to become more enthusiastic about their work, which eventually increases their proactive behavior. To a certain extent, this study contributes to a more comprehensive and nuanced understanding of the mechanisms underlying the determinants of proactive behavior.

Furthermore, the findings of this study have corroborated the mediating role of employee vitality in the relationship between empowerment role identity and proactive behavior, whereas previous researchers have only examined the elements of this relationship separately (e.g. Frese & Fay, 2001; Parker & Collins, 2010). We extended the theoretical extent of employee vitality by empirically proving the interconnectedness between organizational identity and proactive behavior.

Finally, as the findings have confirmed the moderating effect of humble leadership on the mediated relationship between empowerment role identity and proactive behavior through employee vitality, our analysis can be seen as a response to the emerging scholarly view that humble leadership is increasingly becoming an indispensable attribute

that enhances organizational creativity and resilience (Collins, 2001; Owens et al., 2013). More importantly, our analysis focused on measuring the dynamic magnitude that the moderating role of humble leadership as a contextual factor was capable of playing within the relationships of interest.

Practical implications

This study makes several practical contributions. First, supervisors should recognize the positive connection between empowerment role identity and organizational growth. For example, in the ICT industry, where the demand for innovation and self-discipline is high, upper echelon personnel should not only focus on coping with external threats and uncertainties, but also encourage a more decentralized management style (Shalley & Gilson, 2004) that rewards talented employees with a sense of empowerment in decision-making processes (e.g. Zhang & Bartol, 2010). Leaders should also recognize the need for staff development and do their best to fulfill it (Deci et al., 2017).

Second, this research stresses the importance of employee vitality in bridging the link between empowerment role identity and proactive behavior. Managers can benefit greatly from recognizing that employees' empowerment role identity cannot be automatically transformed into their proactivity at work, and that employee vitality is an essential component in catalyzing this transformation. Put differently, organizations are expected to achieve greater organizational performance and success by maintaining a vital and motivated workforce. Bearing this in mind, organizational managers can think about and take effective steps to increase employee vitality, thus creating an environment conducive to fostering the proactivity of employees who desire empowerment. For example, managers can cultivate an encouraging and relaxing work environment and be empathetic toward their subordinates in order to improve employees' happiness and well-being.

Finally, humble leadership is indispensable for management practices because it facilitates a laid-back work environment and helps employees retain their enthusiasm and vitality. According to our unique finding, when supervisors are considered arrogant and hypocritical, employees' empowering role identity may be reduced to a mixed blessing. Thus, leaders must adopt more participatory approaches in their daily management (Collins, 2001; Greenleaf & Spears, 2002; Nielsen et al., 2010) and demonstrate humility, which will help employees develop self-reflection, empathy toward their teammates, and independent learning.

Limitations and directions for future research

This study inevitably has several limitations. First, all variables and their major effects were tested at the individual level. However, it may be more appropriate to

measure some significant variables, such as humble leadership, at the team level. In the future, scholars will be encouraged to develop a multilevel model to further explore the findings generated from our analysis. Second, our findings indicate that employee vitality mediates the relationship between their empowerment role identity and proactive behavior. However, this indirect effect can be attributed to factors other than employee vitality. In other words, some discernible mediators might have been overlooked. Moreover, the measurement scales used in this research are not utterly satisfactory due to the possible item redundancy indicated by high inter-item correlations. While our manual review of item-by-item content supports the workability of this set of scales, we encourage future inquiries to develop more fine-grained measurements from the get-go to validly and reliably examine the focal factors contributing to employee proactivity. Finally, the sample utilized in this study was composed of individual workers from the ICT field in China because of its unique workplace culture (Wang & Yang, 2017). Thus, the generalizability of our findings is questionable. Related hypotheses in other fields and industrial contexts should be explored in future studies.

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Appendix A

Details on the construction of alternative models

1. Four 3-factor models:

- (1) Model I: empowerment role identity and vitality were combined into one factor.
- (2) Model II: empowerment role identity and humble leadership were combined into one factor.

(3) Model III: humble leadership and vitality were combined into one factor.

(4) Model IV: vitality and proactive behavior were combined into one factor.

2. One 2-factor model: empowerment role identity, humble leadership, and vitality were combined into one factor.

3. One 1-factor model: all four variables were combined into one factor.

Table A1. Measurements of focal variables.

| | |
|---------------------------|---|
| Empowerment role identity | |
| 1. | I have a clear concept of myself as an employee who wants to have greater decision-making power. |
| 2. | Having certain degree of power and discretion is an important part of my identity. |
| 3. | I often think about having greater control over my job. |
| 4. | I would feel a loss if I have no discretion at all in my job. |
| Humble leadership | |
| 1. | My leader actively seeks feedback even if it is critical. |
| 2. | My leader admits it when they don't know how to do something. |
| 3. | My leader acknowledges when others have more knowledge and skills than him-or herself. |
| 4. | My leader takes notice of others' strengths. |
| 5. | My leader often compliments others on their strengths. |
| 6. | My leader shows appreciation for the unique contributions of others. |
| 7. | My leader is willing to learn from others. |
| 8. | My leader is open to the ideas of others. |
| 9. | My leader is open to the advice of others. |
| Vitality | |
| 1. | I feel alive and vital. |
| 2. | I have energy and spirit. |
| 3. | I do not feel very energetic (R). |
| 4. | I feel alert and awake. |
| 5. | I am looking forward to each new day. |
| Proactive behaviour | |
| 1. | This employee often tries to institute new work methods that are more effective for the company. |
| 2. | This employee often tries to bring about improved procedures for the work unit or department. |
| 3. | This employee often tries to implement solutions to pressing organizational problems. |
| 4. | This employee often tries to introduce new structures, technologies, or approaches to improve efficiency. |
| 5. | This employee often tries to correct a faulty procedure or practice. |
| 6. | This employee often tries to change how his or her job is executed in order to be more effective. |

Table A2. Results of main effect and mediating effect testing.

| | Coefficient | SE | t-Value | p-Value | LLCI | ULCI |
|--|-------------|---------|---------|-----------|-----------|--------|
| Empowerment role identity (ERI) → vitality (V) | .277*** | 0.054 | 5.086 | .000 | 0.170 | 0.384 |
| V → proactive behavior (PB) | .147*** | 0.054 | 2.709 | .007 | 0.040 | 0.254 |
| ERI → PB (direct effect) | .004 | 0.055 | 0.070 | .945 | -0.104 | 0.112 |
| ERI → PB (total effect) | .045 | 0.053 | 0.834 | .405 | -0.061 | 0.150 |
| Gender → PB | -.344** | 0.119 | -2.901 | .004 | -0.578 | -0.111 |
| Age → PB | .004 | 0.013 | 0.291 | .771 | -0.022 | 0.029 |
| Educational level → PB | .206* | 0.080 | 2.567 | .011 | 0.048 | 0.364 |
| Organizational tenure → PB | .094*** | 0.021 | 4.450 | .000 | 0.053 | 0.136 |
| | Coefficient | Boot SE | | Boot LLCI | Boot ULCI | |
| Mediation effect | .041 | 0.018 | | 0.012 | 0.085 | |
| | Coefficient | SE | | z-Value | p-Value | |
| Sobel test | .041 | 0.017 | | 2.355 | .018 | |

Note. N = 326. Gender, age, educational level, organizational tenure, and the total length of time respondents had been working with their current supervisors were controlled for.

*p < .05. **p < .01. ***p < .001.

Table A3. Results of the moderating effect of humble leadership.

| | Coefficient | SE | t-Value | p-Value | LLCI | ULCI |
|---------------------------------|-------------|-------|---------|---------|--------|-------|
| Constant | 5.675*** | 0.390 | 14.535 | .000 | 4.907 | 6.443 |
| Humble leadership (HL) | .345*** | 0.048 | 7.191 | .000 | 0.251 | 0.440 |
| Empowerment role identity (ERI) | .169** | 0.052 | 3.245 | .001 | 0.067 | 0.272 |
| HL × ERI | .122* | 0.039 | 3.112 | .002 | 0.045 | 0.199 |
| Low HL (MEAN - SD) | .020 | 0.073 | 0.271 | .786 | -0.124 | 0.163 |
| Medium HL (MEAN) | .169** | 0.052 | 3.245 | .001 | 0.067 | 0.272 |
| High HL (MEAN + SD) | .319*** | 0.069 | 4.623 | .000 | 0.183 | 0.454 |
| Gender | .210 | 0.112 | 1.870 | .062 | -0.011 | 0.430 |
| Age | .003 | 0.012 | 0.229 | .819 | -0.021 | 0.027 |
| Educational level | -.081 | 0.077 | -1.058 | .291 | -0.232 | 0.070 |
| Organizational tenure | -.008 | 0.020 | -0.398 | .691 | -0.048 | 0.032 |

Note. $N = 326$. Gender, age, educational level, and organizational tenure were controlled for. Empowerment role identity and humble leadership were mean-centered.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table A4. Full results of applying the Johnson-Neyman technique to reveal the moderating effect of humble leadership on the relationship between empowerment role identity and vitality.

| HL | Effect of ERI on V | SE | t-Value | p-Value | LLCI | ULCI |
|-------|--------------------|-------|---------|---------|--------|--------|
| 1.000 | -0.401 | 0.193 | -2.074 | .039 | -0.780 | -0.021 |
| 1.300 | -0.364 | 0.182 | -2.002 | .046 | -0.722 | -0.006 |
| 1.429 | -0.348 | 0.177 | -1.967 | .050 | -0.696 | 0.000 |
| 1.600 | -0.327 | 0.171 | -1.919 | .056 | -0.663 | 0.008 |
| 1.900 | -0.291 | 0.159 | -1.824 | .069 | -0.604 | 0.023 |
| 2.200 | -0.254 | 0.148 | -1.713 | .088 | -0.546 | 0.038 |
| 2.500 | -0.218 | 0.137 | -1.583 | .114 | -0.488 | 0.053 |
| 2.800 | -0.181 | 0.127 | -1.430 | .154 | -0.430 | 0.068 |
| 3.100 | -0.144 | 0.116 | -1.245 | .214 | -0.373 | 0.084 |
| 3.400 | -0.108 | 0.106 | -1.021 | .308 | -0.316 | 0.100 |
| 3.700 | -0.071 | 0.096 | -0.746 | .456 | -0.259 | 0.117 |
| 4.000 | -0.035 | 0.086 | -0.404 | .686 | -0.204 | 0.134 |
| 4.300 | 0.002 | 0.077 | 0.024 | .981 | -0.150 | 0.153 |
| 4.600 | 0.038 | 0.069 | 0.559 | .577 | -0.097 | 0.174 |
| 4.900 | 0.075 | 0.062 | 1.215 | .225 | -0.046 | 0.196 |
| 5.195 | 0.111 | 0.056 | 1.967 | .050 | 0.000 | 0.222 |
| 5.200 | 0.112 | 0.056 | 1.982 | .048 | .001 | .222 |
| 5.500 | 0.148 | 0.053 | 2.797 | .005 | .044 | .252 |
| 5.800 | 0.185 | 0.052 | 3.544 | .000 | .082 | .287 |
| 6.100 | 0.221 | 0.054 | 4.106 | .000 | .115 | .327 |
| 6.400 | 0.258 | 0.058 | 4.443 | .000 | .144 | .372 |
| 6.700 | 0.294 | 0.064 | 4.593 | .000 | .168 | .421 |
| 7.000 | 0.331 | 0.072 | 4.624 | .000 | .190 | .472 |

Note. $N = 326$. ERI = empowerment role identity; HL = humble leadership; V = vitality.