

# Exploring Role of Personal Sense of Power in Facilitation of Employee Creativity: A Dual Mediation Model Based on the Derivative View of Self-Determination Theory

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**Purpose:** Employee creativity is a key factor that helps organizations to gain competitive advantages. The aim of this study is to add to the knowledge of the antecedents of employee creativity. Based on the derivative view of self-determination theory, we analyzed how personal sense of power affects employee creativity, and the mediating role of affective commitment and creative self-efficacy.

**Participants and Methods:** The participants in this study were 227 on-the-job MBA students (120 males and 107 females, mean age was 32.256 years, age range was between 24 and 52 years) at a university in southwestern China. To collect data, a three-wave survey was conducted. Participants were asked to report: personal sense of power, demographic variables, and zhongyong at Time 1; affective commitment and creative self-efficacy at Time 2; creativity at Time 3. PROCESS was employed to test the hypotheses.

**Results:** Personal sense of power has a significant and positive impact on creativity ( $b = 0.333$ ,  $SE = 0.052$ ,  $p < 0.01$ ). Both affective commitment ( $b = 0.058$ , 95% CI [0.024, 0.107]) and creative self-efficacy ( $b = 0.139$ , 95% CI [0.078, 0.224]) mediate the relationship between personal sense of power and creativity.

**Conclusion:** Personal sense of power was positively correlated with employee creativity while affective commitment and creative self-efficacy mediated their relationship.

**Keywords:** personal sense of power, employee creativity, affective commitment, creative self-efficacy, self-determination theory

## Introduction

Obtaining and maintaining a competitive advantage is an inevitable challenge for every organization. Referring to results that are not only original but also useful to an organization, creativity includes ideas, products, or procedures.<sup>1</sup> Previous studies have found it to be the key to competitive advantage.<sup>2-6</sup> Creative employees think of new and useful ideas, products, or procedures, which lay a solid foundation for the sustainable development of an organization.<sup>7,8</sup> Although there have already been many studies on employee creativity, this topic is still of significance and can provide new theoretical and practical inspiration to top organizations.

Although creativity is critical and valuable, employees are not as actively or voluntarily creative as expected, because creativity is not so easy, as it is affected by many factors. In an organizational context, creative employees not only must

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identify the problems and the necessity for change in work situations<sup>9</sup> but must also abandon existing patterns to look for better methods and new ideas from the bottom up.<sup>10</sup> Such requirements illustrate the complexity of creativity.

For a long time, scholars have been enthusiastic about the secrets of creativity.<sup>11</sup> As one of the main mechanisms that affect social life,<sup>12</sup> power not only means the ability to impose constraints on others but also to free oneself from external influences,<sup>13</sup> including contextual factors. Meanwhile, the power factor is ubiquitous in the workplace and plays a crucial role in the behavior of employees. Previous studies have found that personal sense of power, which is one's perception of how much one is able to influence others,<sup>14</sup> could explain behaviors (eg, voice behaviors) better than could actual power.<sup>15–17</sup> Therefore, we focused on the role of personal sense of power in influencing the creativity of employees, whereas previous studies have paid little attention to this issue.

The feelings of high levels of personal power bring about positive effects (eg, confidence and optimism)<sup>18,19</sup> that encourage employees to be more willing to tackle challenges and exhibit creativity. In addition, employees who think they have power in the workplace tend to take more effective measures to consolidate their actual power.<sup>20,21</sup> In an organizational context, creative performance is indeed an effective way to obtain rewards and improve their own strengths. Therefore, we proposed that personal sense of power had possible positive effects on employee creativity.

Previous studies usually regarded self-determination theory (SDT) as the basic theoretical perspective to explain employee creativity.<sup>22–24</sup> SDT postulates three basic psychological needs for competence,<sup>25,26</sup> relatedness,<sup>27,28</sup> and autonomy.<sup>29,30</sup> In addition, the derivative view of SDT holds that if the need for autonomy were met, the overall satisfaction of the other two needs could be improved.<sup>31</sup> Using this derivative view, we have attempted to explain how personal sense of power stimulated employee creativity. Hence, we proposed a dual mediation model in which personal sense of power, which may meet the need for autonomy, could lead to creativity by promoting affective commitment and creative self-efficacy, which may meet the needs for relatedness and competence, respectively.

This study makes several potential theoretical contributions. First, this study expands the research on personal sense of power by having investigated its possible positive effects on employee creativity. Second, this study found that affective commitment and creative self-efficacy

played a dual mediating role, which may provide a new perspective for explaining the internal mechanism of employee creativity. Finally, for the derivative view of SDT, this study may provide new evidence that meeting the need for autonomy could result in higher levels of the overall satisfaction of the needs for relatedness and competence.<sup>31</sup>

## Literature Review and Hypotheses

### Personal Sense of Power

In most of the early definitions of power, the control of resources (eg, money and information) was the core factor.<sup>32,33</sup> According to these definitions, power holders usually possessed resources needed by powerless people. However, many scholars disagree with these simple definitions, such as that of French and Raven,<sup>34</sup> who postulated five types of power. At present, the more accepted view holds that power not only represents a person's social status but is also ubiquitous in social relations among friends, colleagues, relatives, or even, lovers.<sup>14</sup> Not every relationship can be explained by simple definitions of power. For example, according to a previous study, parents, who generally have much power over their children, often consider themselves powerless in their relationships with their children.<sup>21</sup> In fact, in addition to social status, people also differ in their perceptions of power across interpersonal relationships.<sup>18,19</sup> These perceptions of power are not always consistent with socio-structural indicators.

Some scholars have suggested that power is also a psychological state, which they call personal sense of power,<sup>35</sup> ie, power does not come from the control of resources but from the confidence of individuals in their abilities to influence others.<sup>14,36</sup> Personal sense of power can influence an individual's affect, attention, and behaviors.<sup>18</sup> Some studies have found that personal sense of power could explain behavior better than could actual power.<sup>15–17</sup> Therefore, we focused on the role of personal sense of power in influencing employee creativity, whereas previous studies have paid little attention to this issue.

### Effect of Personal Sense of Power on Creativity

In an organizational context, creativity is defined as results, including ideas, products, or procedures, that are not only original but also useful to an organization.<sup>1</sup> In fact, creativity is not easy. In addition to identifying a need for change, creativity requires existing patterns to be

abandoned and better ways of achieving work goals to be found.<sup>9,10</sup> Thus, risk is an integral part of creativity<sup>37,38</sup> which may not only fail to lead to better products or procedures but also cause huge losses because it destroys the stable status quo. Furthermore, the acceptance of one's new ideas by others, such as superiors and colleagues, in an organization is uncertain. Such situations would aggravate the concerns of employees and inhibit their creativity.

The reduction of such worries and the improvement of creativity are still important issues that deserve more attention. In addition to individual differences, situational factors are often more important in influencing behaviors and expressions.<sup>39,40</sup> Hence, numerous organizations are committed to developing environments supportive of employee creativity. However, as one of the main mechanisms affecting social life,<sup>12</sup> power could free people from external influences.<sup>13</sup> The effect of personal sense of power is similar to how much objective power an individual possesses.<sup>19,35,41</sup> In fact, power considerations are ubiquitous in workplaces and play crucial roles in employee behaviors, including creativity. Some researchers have found that personal sense of power increases an individual's confidence in their own thoughts and ideas.<sup>19,42</sup> Such increased confidence would help the individual to become free from excessive worry and declines in the perceived risk of creativity. However, research on the mechanisms by which personal sense of power affects employee creativity is scarce, so investigations into this topic would be very valuable.

SDT provides a solid theoretical perspective of employee creativity.<sup>1,6,43</sup> Three basic psychological needs can stimulate internal motivation: competence, relatedness, and autonomy. According to Ryan and Deci's<sup>44</sup> definition, autonomy means the volition or the desire to obtain self-organizing experiences and align one's activities with one's complete self-awareness. Consistent with Ryan and Deci,<sup>44</sup> Yu, Levesque-Bristol, and Maeda<sup>45</sup> proposed that the need for autonomy was the core need. First, it was directly related to the innate trend of the integration of individuals. Second, when employees have satisfied this need, they usually feel that the other two needs have also been met.<sup>31</sup> Third, the satisfaction of this need has been suggested to lead to consequences similar to those of the satisfaction of basic needs.<sup>46</sup> Therefore, to explore the relationship between personal sense of power and employee creativity, we start from the perspective of need for autonomy.

The higher an employee's personal sense of power, the more they realize that they can act freely without interference

from others.<sup>18</sup> In an organizational context, employees with a high personal sense of power have greater independence and freedom than do others in various situations, and so, such employees do not care about the evaluations of others.<sup>47</sup> Also, such employees tend to be more self-governing and more volitional in regulating their behaviors so that their needs for autonomy are met.<sup>48</sup> As a result, they can perceive themselves as having the freedom and authority to choose the manner of their work and to determine its pace, thereby becoming more proactive in solving problems at work. Although creativity strongly requires employees to find problems in current situations and change proactively,<sup>9</sup> there is evidence of a positive correlation between autonomy and creativity,<sup>1,49</sup> as the former inspires the latter in multitasking projects.<sup>50</sup> Previous studies have also found that parental support of children's autonomy is associated with the children's creativity.<sup>51,52</sup>

To sum up, according to SDT, personal sense of power can meet an employee's need for autonomy, which can stimulate creativity. Therefore, we proposed:

Hypothesis 1. Personal sense of power is positively related to an employee's creativity.

## Affective Commitment as Mediator

According to the derivative view of SDT, meeting the need for autonomy can lead to higher overall satisfaction of basic psychological needs.<sup>31</sup> A high personal sense of power means that an employee's need for autonomy has been met. Such satisfaction would further satisfy the other needs for relatedness and competence, thereby stimulating creativity. We first analyzed the need for relatedness, which is the need of an individual to gain a sense of belonging and connection to their organization or other people.<sup>44</sup>

In an organizational context, the satisfaction of the needs of relatedness can be regarded as affective commitment,<sup>53</sup> which is defined as an employee's emotional attachment to a particular organization, their willingness to be a part of it, and their trust in its values and goals.<sup>54,55</sup> According to the derivative view of SDT, a high personal sense of power means that an employee's need for autonomy has been met and will produce spillover effects that meet the need for relatedness, ie, enhance the employee's affective commitment. Specifically, an employee with a higher personal sense of power tends to feel more positive emotions, such as self-confidence, have higher regard for their organizations,<sup>17,19,56,57</sup> and higher affective commitment. In contrast, employees with a lower personal sense of

power tend to suffer more from negative emotions, which lead to lower job motivation and satisfaction,<sup>18,58-60</sup> which weaken affective commitment. In conclusion, an employee's personal sense of power can enhance their affective commitment.

The components of organizational commitment are continuous commitment, normative commitment, and affective commitment, which is believed to influence an employee's behaviors and creativity.<sup>61,62</sup> First, an employee with strong affective commitment has a high degree of recognition of their organization's goals and values.<sup>55</sup> Previous studies have found that affective commitment is positively related to extra-role behaviors.<sup>63</sup> Therefore, an employee with high affective commitment is more willing to focus not only on the task at hand but also on finding better ways to achieve their organization's goals. Such positive effects can help improve creativity. Second, a high level of affective commitment can generate psychological safety and reduce the fear of taking risks to be creative, thereby encouraging an employee to be more proactive and creative. Third, an employee with high affective commitment is more inclined to maintain their role in their organization.<sup>62</sup> Since creativity has been used as the main criterion for evaluating employees, the desire to stay in their organization motivates an employee to be more creative.

Building on the derivative view of SDT and the above arguments, we can state that an employee with a high personal sense of power tends to be affectively attached to their organization. Such a sense then promotes creativity. Hence, we proposed:

Hypothesis 2. Affective commitment mediates the positive relationship between an employee's personal sense of power and creativity.

## Creative Self-Efficacy as Mediator

According to the derivative view of SDT,<sup>31</sup> a high personal sense of power means that when an employee's need for autonomy has been met, a spillover effect that meets the need for competence is produced. Since our study focused on employee creativity, we further explored the role of creative self-efficacy, which is defined as an individual's confidence in their abilities (including knowledge and skills) to perform creatively.<sup>64,65</sup>

Previous studies have found that a high personal sense of power is often related to a perception of increased resources.<sup>17</sup> Employees with a strong personal sense of power usually experience high degrees of effectiveness and mastery when interacting with their work environments,<sup>26,66</sup>

ie, personal sense of power allows them to be more confident in using their existing knowledge and skills to pursue ideal work outputs, which, in turn, enhance creative self-efficacy. This statement corresponds with the argument that the satisfaction of psychological needs is a predictor of self-efficacy.<sup>67</sup> Hence, personal sense of power is positively related to creative self-efficacy.

Previous studies have also found that creative self-efficacy is a major driver of employee creativity.<sup>64,65,68,69</sup> Some scholars have confirmed that, in the face of challenging situations, strong self-efficacy can result in increased persistence and resilience,<sup>69</sup> which are required by creativity.<sup>65</sup> Employees with strong creative self-efficacy will display stronger persistence and resilience when facing challenging work tasks. After accepting somewhat difficult work assignments, employees with creative self-efficacy proactively try to find problems with the status quo. Moreover, those with high creative self-efficacy are more persistent in finding solutions to problems, because they have greater confidence in meeting challenges. Such confidence is consistent with the argument that creative self-efficacy encourages them to succeed at attaining the creative goals of their organizations.<sup>64,65,68,69</sup>

Building on the derivative view of SDT and the above arguments, we can state that an employee with a high personal sense of power tends to have a higher level of creative self-efficacy, which, in turn, helps them to perform more creatively. Hence, we proposed:

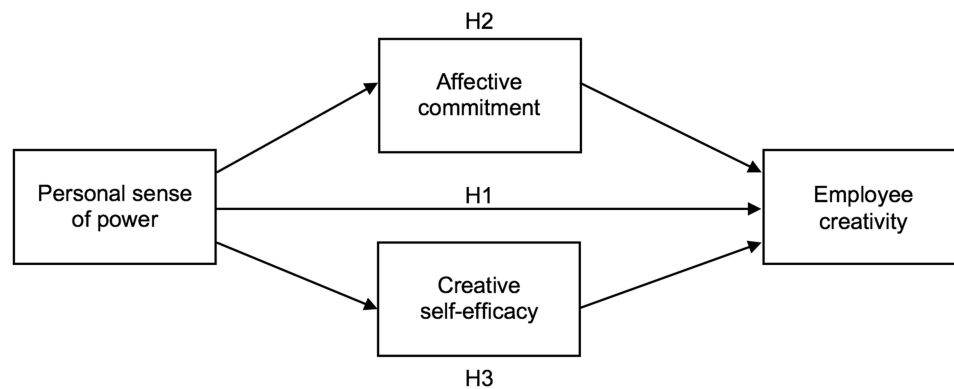
Hypothesis 3. Creative self-efficacy mediates the positive relationship between an employee's personal sense of power and creativity.

In summary, the derivative view of SDT sees personal sense of power as meeting an employee's need for autonomy, and so, has not only a positive effect on creativity but also spillover effects that meet the other basic needs for relatedness (represented by affective commitment) and competence (represented by creative self-efficacy), both of which can activate creativity. To test our hypotheses, we proposed the research model depicted in [Figure 1](#).

## Participants and Methods

### Participants and Procedures

The participants were on-the-job Master of Business Administration (MBA) students at a university in southwestern China. We distributed questionnaires to 409 participants and received 227 complete matched and valid samples, which constituted a response rate of 55.5%. Of the respondents, the number of males and females were 120 and 107, respectively.



**Figure 1** Theoretical model.

The mean age was 32.256 years (range was between 24 and 52 years) and the mean company tenure was 6.085 years (range was between less than one year and 25 years).

To control for common-method biases, we conducted a three-wave survey with a two-week interval between every consecutive measurement, ie, the time gaps between Time 1 and Time 2, as well as between Time 2 and Time 3, were two weeks each. Specifically, participants were asked to report on: their personal sense of power, demographic variables, and zhongyong at Time 1; affective commitment and creative self-efficacy at Time 2; creativity at Time 3.

Three surveys were conducted anonymously. At the end of each survey, each participant was asked to provide their telephone numbers, which were used as labels to match the three surveys and reward the participant with 10 CNY in telephone call credits. To encourage continued participation, they were informed of an additional reward of 10 CNY in call credits after all the surveys had been completely matched.

## Measures

### Personal Sense of Power

We measured this variable by using the eight-item scale of Anderson et al.<sup>14</sup> A sample item is: “I think I have a great deal of power.” For this variable, Cronbach’s alpha was 0.92.

### Creativity

This was measured by Farmer, Tierney, and Kung-Mcintyre’s<sup>70</sup> four-item scale. A sample item is: “I seek new ideas and ways to solve problems.” Cronbach’s alpha was 0.85.

### Affective Commitment

This was measured by the five-item scale of Gao, Biemann, and Jaros.<sup>71</sup> A sample item is: “I am glad to have joined this organization.” Cronbach’s alpha was 0.94.

### Creative Self-Efficacy

This was measured by the three-item scale of Tierney et al.<sup>64</sup> A sample item is: “I have confidence in my ability to solve problems creatively.” Cronbach’s alpha reliability estimate for this scale was 0.89.

### Control Variables

Following previous research, we included three demographic variables as controls: gender, age, and company tenure. To control the possible influences of Chinese cultural factors, zhongyong was included as a control variable. Zhongyong, the core doctrine of the Confucianism, emphasizes a holistic and balanced perspective while seeking compromises, instead of taking extreme perspectives and acting upon impulses.<sup>72–74</sup> To measure zhongyong, we used a six-item scale.<sup>75</sup> A sample item is: “Everything has limitations, so it is not very good to exceed them”. Cronbach’s alpha reliability estimate was 0.80.

All measures were translated into Chinese by the procedure of translation and back-translation proposed by Brislin.<sup>76</sup> Except for the demographic variables, participants responded on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

## Statistical Analysis

To examine the distinctiveness of our research constructs (personal sense of power, affective commitment, creative self-efficacy, zhongyong, and creativity), we conducted a set of confirmatory factor analyses (CFAs). Then, we provided descriptive statistics, including means, standard deviations, and correlation matrixes, for the key measures. Finally, we used the SPSS macro, PROCESS,<sup>77</sup> developed by Hayes to test our hypotheses. Following the hypothesized theoretical model, we adopted Template 4 and set personal sense of power as the independent variable, creativity as the dependent



variable, affective commitment and creative self-efficacy as the mediators, and demographic variables (gender, age, and company tenure) and zhongyong as the control variables.

## Results

### Confirmatory Factor Analyses

Before testing our three hypotheses, a set of confirmatory factor analyses were conducted. As shown in Table 1, the five-factor model (personal sense of power, affective commitment, creative self-efficacy, zhongyong, and creativity) provided a better fit than alternative models, confirming the distinctiveness of the five measures.

### Descriptive Statistics

The means, standard deviations, Cronbach's alpha coefficients, and correlations among the study variables are shown in Table 2. Personal sense of power was positively correlated with affective commitment ( $r = 0.444$ ,  $p < 0.01$ ), creative self-efficacy ( $r = 0.397$ ,  $p < 0.01$ ), and creativity ( $r = 0.441$ ,  $p < 0.01$ ). Both affective commitment ( $r = 0.424$ ,

$p < 0.01$ ) and creative self-efficacy ( $r = 0.594$ ,  $p < 0.01$ ) were positively correlated with creativity.

### Hypothesis Testing

To examine the effect of personal sense of power on employee creativity, as well as the mediating effects of affective commitment and creative self-efficacy, the PROCESS macro in SPSS and bootstrapping estimates were used to construct bias-corrected confidence intervals.

The results indicated that by controlling the effects of demographic variables (gender, age, and company tenure) and zhongyong, personal sense of power had a significant and positive effect on creativity ( $b = 0.333$ ,  $SE = 0.052$ ,  $p < 0.01$ ), which supports Hypothesis 1.

The results suggest that personal sense of power had positive effects on both affective commitment ( $b = 0.502$ ,  $SE = 0.077$ ,  $p < 0.01$ ) and creative self-efficacy ( $b = 0.320$ ,  $SE = 0.055$ ,  $p < 0.01$ ). In addition, when affective commitment and creative self-efficacy were included, personal sense of power still had a significant but weaker effect ( $b = 0.135$ ,

**Table 1** Results of Confirmatory Factor Analyses

Models	$\chi^2$	df	$\chi^2/df$	RMSEA	CFI	IFI	TLI
5-factor model	573.632	289	1.985	0.066	0.924	0.924	0.914
4-factor model a	887.988	293	3.031	0.095	0.840	0.842	0.823
4-factor model b	996.683	293	3.402	0.103	0.811	0.813	0.791
3-factor model	1307.995	296	4.419	0.123	0.728	0.731	0.702
1-factor model	2253.679	299	7.537	0.170	0.475	0.479	0.430

**Notes:** N=227. The 5-factor model is the basic hypothesized measurement model. In the 4-factor model a, zhongyong and sense of power were combined. In the four-factor b, affective commitment and creative self-efficacy were combined. In the three-factor model, zhongyong and personal sense of power were combined, and affective commitment and creative self-efficacy were combined. Finally, we combine all the four variables into one factor to form a 1-factor model.

**Table 2** Means, Standard Deviations, and Correlation Matrix for Key Measures

Variables	1	2	3	4	5	6	7	8
1. Gender	—							
2. Age	-0.266**	—						
3. Company tenure	-0.087	0.622**	—					
4. Zhongyong	0.068	0.053	0.125	(0.80)				
5. Personal sense of power	-0.143*	0.211**	0.078	0.190**	(0.92)			
6. Affective commitment	-0.049	0.210**	0.083	0.161*	0.444**	(0.94)		
7. Creative self-efficacy	-0.057	0.034	-0.004	0.265**	0.397**	0.343**	(0.89)	
8. Creativity	-0.032	0.153*	0.040	0.232**	0.441**	0.424**	0.594**	(0.85)
Mean	-	32.256	6.085	4.088	3.275	3.580	3.902	3.852
SD	-	5.289	4.948	0.466	0.737	0.915	0.645	0.617
Range possible	1–2	24–52	0–25	1–5	1–5	1–5	1–5	1–5
Range actual	1–2	24–52	0–25	1.5–5	1–5	1–5	2–5	2–5

**Notes:** N=227. SD: standard deviation. Values on the diagonal represent Cronbach's alpha ( $\alpha$ ). Gender: 1= male, 2= female. Company tenure: 0 = less than one year. \* $p < 0.05$ . \*\* $p < 0.01$

SE = 0.050,  $p < 0.01$ ) on creativity, whereas both affective commitment ( $b = 0.115$ , SE = 0.039,  $p < 0.01$ ) and creative self-efficacy ( $b = 0.436$ , SE = 0.055,  $p < 0.01$ ) had positive effects on creativity. Furthermore, the bootstrapping test with 5000 samples showed that the mediating effect of personal sense of power on creativity via affective commitment was significant ( $b = 0.058$ , 95% CI [0.024, 0.107]) and the mediating effect of personal sense of power on creativity via creative self-efficacy was also significant ( $b = 0.139$ , 95% CI [0.078, 0.224]). These results support Hypotheses 2 and 3.

The results are shown in Figure 2.

## Discussion

To explore if and how personal sense of power affects employee creativity, we proposed and examined a dual mediation model (affective commitment and creative self-efficacy as mediators) based on the derivative view of SDT. The results supported our model and showed that (a) personal sense of power has a positive effect on employee creativity while (b) affective commitment and creative self-efficacy play mediating roles between the two factors.

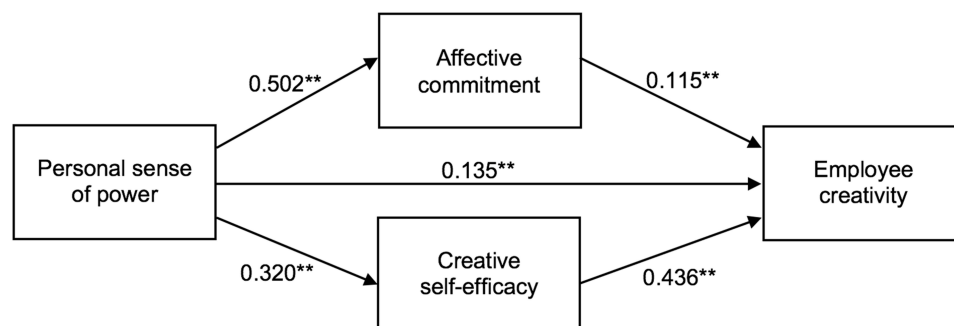
## Theoretical Implications

This study has three theoretical implications. First, personal sense of power does have a positive effect on employee creativity. This finding expands the research on personal sense of power. Previous studies paid little attention to the influence of personal sense of power on creativity. This study attempted to fill this knowledge gap and enrich the literature on the outcomes of personal sense of power. In addition, new evidence and a different explanation for the positive effects of personal sense of power were provided. Previous studies have explained the positive effects, including increased optimism and confidence, of personal sense of power.<sup>18,19</sup> In contrast, our interpretation of the positive

effect of personal sense of power is based on its ability to meet the need for autonomy, ie, this study enriched theoretical explanations for personal sense of power. Furthermore, this finding could explain why intercultural experiences facilitate creativity,<sup>78,79</sup> because people who are not limited to living life in one culture could feel more powerful than people who have never left their original culture and do not have much contact with outsiders.

Second, affective commitment and creative self-efficacy were found to play a dual mediating role. This finding provides new insights into the internal mechanism of employee creativity. In an organizational context, activities related to creativity are risky.<sup>37,38</sup> According to our study, affective commitment encourages employees to take risks for their organizations and exhibit creativity while creative self-efficacy enables them to overcome risks and exhibit creativity, ie, affective commitment and creative self-efficacy provide affective and cognitive paths, respectively, for stimulating employee creativity. In conclusion, this study revealed more comprehensively and deeply how employee creativity is generated in an organizational context.

Finally, this study provides new evidence for the derivative view of SDT, which stipulates that meeting the need for autonomy results in a higher level of the overall satisfaction of basic psychological needs.<sup>31</sup> Although SDT has been widely applied in various fields, the derivative views are still rarely applied and verified. Our research showed that this theoretical view helps explain the effect of personal sense of power not only on employee motivation but also on creativity. Specifically, personal sense of power meets an employee's need for autonomy, as well as meets the other basic needs of relatedness and competence, as represented by affective commitment and creative self-efficacy, respectively, to activate creativity.



**Figure 2** The dual mediation model of personal sense of power on employee creativity.

**Note:** \*\* $p < 0.01$ .

## Practical Implications

Considering that employee creativity is a key factor that helps organizations to gain competitive advantages in competitive business settings,<sup>2,6</sup> our findings also offer some significant insights into practice.

First, compared with improving objective power,<sup>12,80</sup> our study provides an alternative way to facilitate employee creativity. Especially in flat organizations, where the levels of the objective power of the employees are almost equal, improvements in their personal sense of power play more crucial roles in enhancing creativity. According to prior research, not only personality variables, such as dominance, but also socio-structural factors can affect personal sense of power.<sup>14</sup> Hence, an organization hiring employees can conduct relevant tests to select individuals with personal characteristics, such as extraversion, conscientiousness, openness, and high self-esteem, that are positively associated with personal sense of power.<sup>14</sup> Superiors can actively interfere with the personal sense of power of their subordinates. For example, humble leaders can make their subordinates feel that the ideas of the latter are more likely to be accepted, and so, promote their personal sense of power.<sup>17</sup> Meanwhile, supervisors can provide developmental feedback to help employees be clearly aware of their abilities and skills while activating their personal sense of power.<sup>14</sup>

French and Raven identified five types of power in organizational contexts: legitimate power, reward power, coercive power, expert power, and referent power.<sup>34</sup> Obviously, the former three types of power come from the positions and resources that employees have in their organizations, which are difficult to change. However, organizations can promote the latter two types of power. For example, organizations can improve employees' expert power by providing training programs and skill titles. Organizations can enhance their employees' referent power by improving organizational recognition and reward systems, such as publicly appreciating and rewarding excellent employees in company conferences, publications, and websites.

Second, organizations should note the critical role of affective commitment in facilitating employee creativity, because of the significant mediating effect of affective commitment in the relationship between personal sense of power and creativity. To increase the affective commitment of their employees, organizations should provide

appropriate training, timely feedback on their performance, and rewards,<sup>81,82</sup> as well as help them keep a work-life balance by providing opportunities for family gatherings, day-care, and flexible work hours. Both above-mentioned points could improve the perceived organizational support so that an organization could expect its employees to be more committed and to attach more importance to its efforts. Moreover, supervisors should be trained to understand the important role of leadership in enhancing the affective commitment of their subordinates, because leaders' attitudes serve as important factors in establishing harmonious work environments. For example, inclusive leadership is positively related to employees' affective commitment.<sup>83</sup>

Third, our research found that the mediating role of creative self-efficacy between personal sense of power and creativity indicates that creative self-efficacy is a proximate factor affecting and another important way of enhancing employee creativity. In practice, employees who have high levels of creative self-efficacy at the beginning of their careers are rare. Thus, organizations can actively interfere with their employees' creative self-efficacy. Previous research has found that organizations can provide the appropriate training to improve their employees' creative self-efficacy.<sup>65,84</sup> Also, some effective management measures can be considered. For example, previous studies have found that organizations can improve their employees' creative self-efficacy by providing role models of creativity, superior persuasive behavior, and the creativity expectations of supervisors.<sup>64,85</sup>

## Limitations and Directions for Future Research

Despite its significant findings, this study inevitably has limitations. First, it focused on personal sense of power but did not compare this with objective power. The potential interaction between personal sense of power and objective power can be considered by future research. Managers often say they like creativity despite being closed-minded towards creativity in practice, due to the risk it represents.<sup>86</sup> Therefore, it would be meaningful to explore ways to make employees feel powerful without offering extra resources and to explore the effectiveness of interventions to increase the power felt in the workplace. Second, it was conducted in a Chinese cultural context, so the results may not hold in other cultural contexts. Future studies could test the results for different cultures. Third, this study adopted a cross-sectional design, which limited



the causal results among the variables. In the future, an experimental method or a longitudinal design could be used to obtain such results.

## Conclusion

According to the derivative view of self-determination theory, a dual mediation model for the relationship between personal sense of power and employee creativity was validated. Personal sense of power, which meets the need for autonomy, leads to employee creativity by promoting affective commitment and creative self-efficacy, which meet the needs for relatedness and competence, respectively.

## Data Sharing Statement

Data supporting the findings presented in the current study will be available from the corresponding author upon request.

## Ethical Statement

Our study did not involve human clinical trials or animal experiments. The participants were all adults (aged from 24 to 52 years) who were not in vulnerable groups. Also, this study did not involve any sensitive topics (sexual behavior, illegal activities, racial biases, etc.) that may have made the participants feel uncomfortable or may have been physically or mentally stressful. There was no deception or withholding of information from the participants. There was no access to data by individuals or organizations other than the investigators. This study did not have any conflicts of interest. For the above reasons, this study was judged to be in accordance with institutional requirements, and hence, exempted from ethical approval. Verbal informed consent from the participants was obtained prior to the study and the process of consent was approved by the Institutional Review Board of Business School of Sichuan University.

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## Disclosure

The authors report no conflicts of interest in this work.

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