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"Switch off?!" the Mechanism of Psychological Detachment Affecting Employee Creativity

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Abstract. This paper examines the effect of psychological detachment from work during off-job time on employee creativity in the workplace and tests the mediating role of creative self-efficacy and the moderating role of job complexity in the above relationship. This paper conducted a cross-sectional survey study with 230 employee-supervisor matching sample in China. Results shows that psychological detachment is positively related to employee creativity, creative self-efficacy plays a fully mediating role in the above relationship and job complexity moderates the relationship between psychological detachment and creative self-efficacy.

Introduction

Increasingly fierce competition, turbulent markets and fast technology change tend to reinforce organizations to perform sustained innovation, and accordingly, employee creativity resources have been overdeveloped, giving rise to a dilemma where creativity dries up. Therefore, helping employees temporarily detach from work and acquire recovery for creativity, psychological detachment has becoming the focus from both practical and theoretical sides. Psychological detachment refers to "a state in which people mentally disconnect from work and do not think about job-related issues when they are away from their job."(Sonnentag, 2012, p.1). In other words, people experience the feelings of "switch off" during after-work time.

In building a model illustrating the effect mechanism of psychological detachment on employee creativity, the paper further take into account psychological detachment literature and the creativity literature to resolve the issue of how facilitate employee creativity from the perspective of off-job field. First, the basic relationship between psychological and creativity will be explored. Second, the mediating mechanism of creative self-efficacy needs to be tested. Finally, the paper further test the moderating effect of job complexity. Figure 1 depicts the conceptual model in this study.

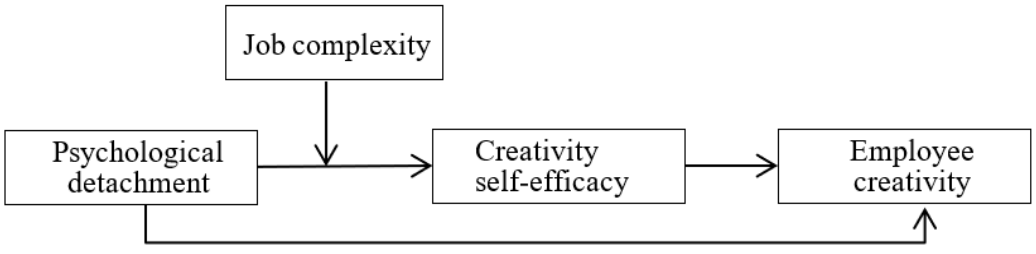

Fig. 1 Theoretical model

Literature Review and Hypotheses

Psychological Detachment and Employee Creativity

Employee creativity is conceptualized as employees' generation of novel and useful ideas about products, processes, as well as procedures or services at work (Amabile, 1996). In keep with the assumption that ordinary individuals can produce creativity varying in the degree of novelty (Amabile,

1983), the paper also investigate incremental adjustments in working context where creative performance is not anticipated.

Psychological detachment seems enhance employee creativity for some reasons. Creative tasks are likely to be uncertain, complicated and risk-taking (George and Zhou, 2001), signifying that individuals often suffer from unexpected difficulties in the creative process or unattainability of creative outcomes. When employees perceive threatens from difficulties and are unable to cope, the intentional efforts of protecting resources leads to one's preference to conventional ideas or solutions (Ford, 1996). Compared with habitual action, creativity requires extra investment of personal resources (e.g. receptivity beliefs, emotions and behavior ability) (Bandura, 1997). Enduring resource depletion will result in a state of fatigue and exhaustion. To avoid the situation, individuals must resort to off-job recovery to refill their energy reservoirs (Halbesleben et al., 2014). Employees with considerably high levels of psychological detachment rebuild a series of valuable resources, such as improved affective states, vigor (energy and mental resilience), willingness to invest effort and feeling of immersion (Siltaloppi et al., 2009) and accordingly, they perceive that their work is interesting and enjoyable, promoting employee creativity. In contrast, when employees conduct less psychological detachment, they suffer from health complaints, burnout or depressive emotions, decreasing effort investment in tacking difficult tasks. This, in turn, impedes employee creativity. As such, I proposed the following:

Hypothesis 1: Psychological detachment is positively related to employee creativity.

The Mediating Influence of Creative self-efficacy

Tierney and Farmer (2002) defined creative self-efficacy as "the belief that one has the ability to produce creative outcomes" (2002, p. 1138). The reasons of psychological detachment seem conductive to the maintenance of creative self-efficacy are as follows. Psychological detachment protects one's capability belief from depleting in the process of creative engagement. Indeed, in a creative domain exits many uncertain and challenging factors (Bandura,1997), which threaten the belief in one's ability to accomplish desired outcomes-creative. Accordingly, the impaired creative self-efficacy will be restored by employees' detaching from the workplace and, more efforts will be put in to guarantee the fulfillment of creative outcomes. Overall, psychological detachment may be a necessary for the formulation of the more targeted creative self-efficacy. As such, I proposed the following:

Hypothesis 2: Psychological detachment is positively related to creative self-efficacy.

Previous research indicated that self-efficacy is an indispensable factor of the creative motivational process (Bandura, 1997; Ford, 1996). Bandura (1997) argued that "Effective personal functioning is not simply a matter of knowing what to do and be motivated to do" and individuals have to build efficacy beliefs which "activate cognitive, motivational and affective processes that govern the translation of knowledge and abilities into proficient action" (1997, pp. 36–37)." An individual will perform behaviors leading to creative outcomes on the condition that he or she have confidence with one's ability to be creative (Bandura, 1997; Ford, 1996). As such, I proposed the following:

Hypothesis 3: Creative self-efficacy mediates the relationship between psychological detachment and employee creativity.

The Moderating Influence of Job Complexity

Job complexity refers to the task enrichment of a job in term of psychological dimension of tasks (Hackman and Oldham, 1975), thereby requiring employees to invest psychological and physical effort. Job complexity is a specify aspect of job demand, encompassing less structural task units. Bakker and Demerouti (2007) has proposed that job demands are not necessarily related to resource losses, but they are likely to become harmful job stressors on the condition that considerable internal resources meeting those demands has not been adequately recuperated and replenished (Meijman and Mulder, 1998). Compared to simple job demands, jobs in complexity require more internal resources to support stimulating and challenging tasks. Although little study has investigated the moderating impact of job complexity on the relationship between psychological detachment and creative self-efficacy, there is also reasonable evidence to indirectly illustrate the influence (Sonnentag and Fritz, 2007). As such, I proposed the following:

Hypothesis 4: Job complexity will moderate the relationship between psychological detachment and creative-efficacy such that the relationship between psychological detachment and creative self-efficacy will be weaker for individual with high rather than low job complexity.

Methods

Sample

The study data were collected from full-time employees and their immediate supervisors working in 14 companies located in Yangtze River Delta, China. A total of 230 supervisor subordinate dyads completed all sections of the survey, for a response rate of 53 percent for employees and a hundred percent for supervisor. In the employee sample, 60 percent were male. The mean age were 28.28 years (SD =4.68) and average job tenure was 2.99 years (SD =1.31). In light of education level, 33% respondents had Master's degree and above, 47% bachelor's degree and equivalence (16 years of education) and 20%college degree and equivalence. In term of job type, 20.3% of respondents were from HR, 10.4% production, 25.7 finance/accounting, 10.2 logistics as well as 33.4% sales and others (20.9% R&D). Unless otherwise explained, all the variables were measured by participant responses to questions on a five-point Likert-type scale ranging from "strongly disagree to" to "strongly agree".

Measure

Unless otherwise explained, all the variables were measured by participant responses to questions on a five-point Likert-type scale ranging from "strongly disagree to" to "strongly agree". (1) Creativity. The paper used a 13-item scale developed by George and Zhou (2001) and had each employee rated by the supervisor. (2) Psychological detachment. Psychological detachment was measured with a four-item scale developed by Sonnentag and Fritz (2007). (3) Creative self-efficacy. Creative self-efficacy was measured with a three-item scale developed by Tierney and Farmer(2002). (4) Job complexity. Job complexity was measured with a two-item scale developed by Oldham et al. (1995) and had each employee rated by the supervisor on a seven-point scale. The scale's alpha reliability of the above variables is showed in the table 1. Control variables. This paper controlled for five demographic variables that have been considered to be associated with creativity (e.g., Tierney and Farmer, 2002), include age, job tenure, education, gender and job type.

Results

Confirmatory Factor Analysis

We conducted confirmatory analyses (CFAs) on all variables. The fit of a four-factor model was tested, including psychological detachment, job complexity, creative self-efficacy and creativity. The analytical results show that the hypothesized four-factor demonstrated acceptable fit ($\chi^2(289)=606.256$, $p<0.001$; RMSEA=0.069, TLI=0.917, CFI=0.901). Moreover, all the factor loadings were significant, supporting convergent validity in this study.

Descriptive Statistics

Means, standard deviations and correlations among all variables are displayed in Table 1. Psychological detachment was significantly and positively correlated with creative self-efficacy ($r=0.28$, $p<0.01$) and employee creativity ($r=0.19$, $p<0.01$), while creative self-efficacy was significantly and positively correlated with employee creativity ($r=0.29$, $p<0.01$), suggesting that our hypotheses mentioned above were preliminary support. Table 1 also shows that job complexity was significantly and positively correlated with employee creativity ($r=0.32$, $p<0.01$).

Table 1 Means, standard deviations, and correlations

	Mean	SD	1	2	3	4	5	6	7	8	9
1. Gender [a]	.60	4.68	—								
2. Education	2.13	.72	-.06	—							
3. Job type [b]	3.57	1.69	-.15*	-.36**	—						
4. Age	28.28	.49	-.04	.03	.092	—					
5. Job tenure	2.99	1.31	.02	-.37**	.22**	.70*	—				
6 .Psychological detachment	3.16	1.04	-.07	-.05	.05	-.02	-.02*	(.86)			
7. Job complexity	4.54	1.17	.19**	.14*	-.15*	.12	.12	-.14*	(.72)		
8. Creative self-efficacy	3.78	0.88	.05	.26**	-.16*	-.03	-.10	.28**	.13*	(.92)	
9. Employee creativity	3.16	0.78	.14*	-.04	.01	-.05	.11	.19**	.32**	.29**	(.95)

Note. N=230. Alpha coefficients are displayed on the diagonal. [a] Female=0, Male=1. [b] Production=0, Operations=1.
** p<0.05; * p<0.01.

Tests of Hypotheses

To test the hypotheses, Hierarchical regression analyses were performed. Table 2 indicates the results for the mediation tests, following the procedures of a full mediation (Baron and Kenny, 1986). The results supported Hypotheses 2, 1 and 3 as follows: (1) psychological detachment is positively related to creative self-efficacy (β = .43, p < .01, Model 2); (2) psychological detachment is positively related to employee creativity (β = .21, p < .01, Model 6); (3) creative self-efficacy was positively related to employee creativity (β = .30, p < .01, Model 7); (4) the correlation between psychological detachment and employee creativity became nonsignificant (β = .07, n.s., Model 8) after entering creative self-efficacy.

Table 2 Results of hierarchical regression analyses

	Creative self-efficacy				Employee creativity			
	M1	M2	M3	M4	M5	M6	M7	M8
Control variables								
Gender	.05	.07	.03	.05	.13	.12	.11	.11
Education	.26**	.19**	.24**	.21**	.11	.06	.08	.02
Job type	-.07	-.07	-.07	-.04	.04	.01	.05	.05
Age	-.08	.02	-.12	-.07	-.32**	-.31**	-.30**	-.30**
Job Tenure	.07	.15*	.01	.01	.30**	.35**	.31**	.33**
Independent variable								
Psychological detachment		.43**	.47**	.13*		.21**		.07
Moderator								
Job complexity			.02	.11				
Interaction								
Psychological detachment × Job complexity				-.17**				
Mediator								
Creative self-efficacy							.30**	.24**
R^2	.09	.31	.29	.14	.10	.15	.17	.18
F	3.68**	12.16**	11.50**	8.97**	3.70*	3.70**	6.48**	4.35**
ΔR^2	.09	.01**	.20**	.03**	.09	.06**	.08**	.04**
ΔF	3.68**	2.56*	31.90**	17.42*	3.65**	3.53**	21.44**	9.35**

Notes: N = 230; ** p < 0.01, * p < 0.05.

Hypothesis 4 predicted that job complexity moderates the relationship between psychological detachment and creative self-efficacy (Hypothesis 4). All interaction variables were mean centered to minimize multicollinearity (Aiken and West, 1991). As displayed in Table 2, the interaction between psychological detachment and job complexity was negatively related to creative self-efficacy (β = -0.17, p < 0.01, Model 4). The change of the multiple squared correlation coefficient (ΔR^2) for the interaction term of psychological detachment and job complexity, was statistically significant, explaining a significant amount of variance in creative self-efficacy (ΔR^2=.03, p < .05).To determine the nature of the moderating effect, Figure 2 shows that the interaction pattern as predicted in that the relationship between

psychological detachment and creative self-efficacy was weaker for individuals with high job complexity.

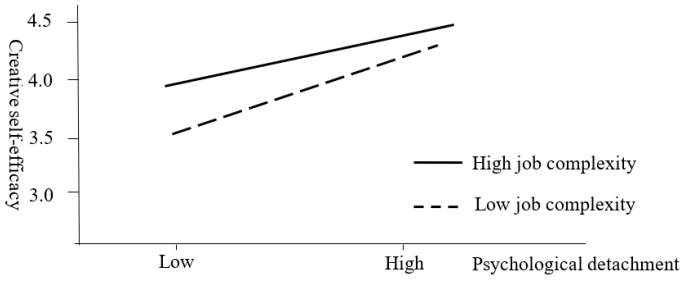

Fig. 2 Interaction between psychological detachment and job complexity

Discussion

Based on the work recovery theory and creative component model, this paper tested that employees mentally disengaging from work during off-hours can enhance their creativity at the workplace, via creative self-efficacay. Further, the jobs complexity degree will negatively moderate the the relationship between psychological detachment and creative self-efficacy. Thus, the hypotheses proposed in the paper are supported, which make contributions to illustrating that the psyhological mechanism may be effective means for sustained creativity and to developing the creativity theory.The theoretical model and findings in the paper also has implications for organizations to build the vacation standard. Besides, managers can help employees build the virtual work-family boundary to "switch off" and then recover employees' personal resources to improve the enterprise creativity and innovative performance.

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