

TEAM AUTONOMY AMPLIFIES THE POSITIVE EFFECTS OF PROACTIVE PERSONALITY ON WORK ENGAGEMENT

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From the perspective of the interaction of person and situation, we examined the effects of proactive personality on inrole performance investment and extrarole behavior of employees, and how these effects are amplified by situational conditions. Specifically, we investigated the effects of proactive personality on employees' work engagement and altruism, and the moderating effect of team-level autonomy on these effects. Data were collected from 464 nurses and their supervisors in 75 teams at 4 hospitals in Shandong, China. Results suggest that proactive personality is positively related to work engagement and altruism of employees. The positive relationship between proactive personality and work engagement is stronger with a higher level of team autonomy, whereas the positive relationship between proactive personality and altruism is not significantly moderated by degree of team autonomy. Theoretical and practical implications are discussed.

Keywords: proactive personality, altruism, work engagement, team-level autonomy, interaction of person and situation.

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Proactive personality has received increasing attention in organizations in recent years. For example, in previous studies it has been found that employees with a proactive personality enhance organizational effectiveness (Li, Liang, & Crant, 2010), and the organization thereby achieves competitive advantage and success (Fuller, Hester, & Cox, 2010). Many researchers have documented the positive effects of proactive personality on employees' positive attitudinal outcomes, for example, job satisfaction (Li et al., 2010) and aspects of career success, such as performance (Fuller & Marler, 2009; Seibert, Crant, & Kraimer, 1999; Seibert, Kraimer, & Crant, 2001). However, we maintained that we could extend the literature by exploring both the effects of proactive personality on employees' inrole performance investment and their extrarole behavior, and the effect of the interaction between proactive personality and external situation on these positive outcomes.

Specifically, we proposed that the effects of employee proactive personality may not be restricted to their ultimate career outcomes and to organizational effectiveness. Specifically, we expected that the process of achieving career success would be linked to the proactive personality trait. As such, we explored two potential critical outcomes of proactive personality, the focus of which was employees' experience in, or attitude toward, their work (work engagement), and their helping behavior toward colleagues (altruism).

In addition, from the perspective of the interaction of person and situation, we expected the relationship between proactive personality and its outcomes to be shaped by situational factors. According to the situational strength theory (Barrick & Mount, 1993; Meyer, Dalal, & Hermida, 2010), the effect of personality is presumed to be stronger in a weak situation. As such, in a work environment there are not specific expectations or rules to constrain employees' behavior, so that employees are likely to behave according to their personal tendencies (Fuller et al., 2010). Therefore, to assess the strength of the environment we included team autonomy (Barrick & Mount, 1993; Fuller et al., 2010), and we expected that the relationship between proactive personality and its outcomes would be stronger in teams with a higher level of autonomy.

Literature Review and Hypothesis Development

Proactive Personality

Proactive personality is defined as a disposition toward taking personal initiative to actively identify opportunities and influence one's environment (Crant, 2000). Proactive individuals are willing to act to change their circumstances intentionally (Bakker, Tims, & Derks, 2012) by persevering until meaningful change happens (Crant, 1995). Managers of organizations have become interested in proactive employees recently (Fuller et al., 2010), because these employees identify opportunities to create favorable organizational conditions to improve their

performance (Crant, 2000), thus enabling the improvement of competitiveness of the organization and producing a dynamic environment.

Proactive Personality and Work Engagement

We expected that there would be a positive relationship between employee proactive personality and *work engagement*, which is defined as a positive, fulfilling work-related state of mind, and is typified by vigor, dedication, and absorption (Schaufeli, Bakker, & Salanova, 2006; Schaufeli, Salanova, González-Romá, & Bakker, 2002). First, as proactive employees demonstrate initiative and perseverance (Bakker et al., 2012; Bateman & Crant, 1993; Crant, 1995), they are likely to be involved in their work environment and immerse themselves in their job (Christian, Garza, & Slaughter, 2011).

Second, because work engagement also represents employees' investment in their role-related performance (Rich, Lepine, & Crawford, 2010), an increase in work engagement should be associated with more of the employees' personal physical, cognitive, and affective resources being available. Therefore, from the perspective of resources, having a proactive personality as a personal resource (Y.-H. Wang, Hu, Hurst, & Yang, 2014; Z. Wang, Zhang, Thomas, Yu, & Spitzmueller, 2017) should help employees invest in their job, thereby leading to a higher level of work engagement. Therefore, we proposed the following hypothesis:

Hypothesis 1: Proactive personality will be positively related to employees' work engagement.

Proactive Personality and Altruism

In the context of organizations, *altruism* refers to behavior through which employees aim to help other employees with task-relevant problems in the organization (Podsakoff, MacKenzie, Moorman, & Fetter, 1990). This behavior may ultimately benefit the organization (Jex, Adams, Bachrach, & Sorenson, 2003). Employee altruism is therefore considered to be a core dimension of organizational citizenship behavior (Ilies, Nahrgang, & Morgeson, 2007; Organ, 1988). We point out here that it is notable that performing altruistic acts is discretionary for employees because, compared to being less conscientious or courteous than previously, withdrawing their altruism is much less likely to be criticized by the managers of the organization or by their colleagues (Jex et al., 2003). We expected that this discretionary behavior would be more likely to be triggered by individual differences—such as proactive personality—than by external requirements or expectations, because having such discretion implies that individuals can choose whether or not to perform the behavior.

Because proactive personality and altruism are both characteristics of employees who go beyond the basic requirements of their job and take the initiative to contribute to the organization (Frese, Kring, Soose, & Zempel, 1996; Li, et al.,

2010), it is very likely that employees with a proactive personality are more willing than are their colleagues to help other employees to solve problems at work. As receiving this altruism helps other employees to accomplish their work and is beneficial to the organization, the performance of altruistic acts brings positive changes to the proactive employee's work environment. Therefore, we proposed the following hypothesis:

Hypothesis 2: Proactive personality will be positively related to employee altruism.

Moderating Role of Team Autonomy

From the perspective of the interaction of person and situation, we also explored a situational factor that may influence the relationship between proactive personality and the altruism and work engagement outcomes. We considered a higher level of *team autonomy* as a weak situation (Barrick & Mount, 1993; Fuller et al., 2010) because a strong situation means that there is an environment with specific and detailed expectations of, and controls over the employees, which is the opposite of high autonomy. Employees in a team with a high level of autonomy can choose specific plans or actions when making decisions. These team members have more opportunity than members of other teams have to regulate their behavior—such as altruism and work engagement—according to their own tendency or preference—such as proactive personality. From the perspective of situational strength (Barrick & Mount, 1993; Meyer et al., 2010), we predicted that the effects of proactive personality on employees' behavior would be stronger in a team with a higher level of autonomy. Therefore, we proposed the following hypotheses:

Hypothesis 3a: Team autonomy will moderate the positive relationship between employee proactive personality and work engagement. Specifically, the positive relationship between proactive personality and work engagement will be stronger when employees are in a team with a higher level of autonomy than when they are in a team with a lower level of autonomy.

Hypothesis 3b: Team autonomy will moderate the positive relationship between employee proactive personality and altruism. Specifically, the positive relationship between proactive personality and altruism will be stronger when employees are in a team with a higher level of autonomy than when they are in a team with a lower level of autonomy.

Method

Participants and Procedure

We collected data from employees at four large hospitals in Shandong, China. Data were collected at two time points. We contacted all nurses ($n = 564$) and their supervisors ($n = 81$) who were currently actively working. We excluded

all those who were on leave for various reasons. To satisfy ethical requirements we distributed a cover letter to all participants, in which all the nurses and supervisors were assured that their participation was voluntary and that their responses were confidential and would be used only for third-party research. Of the employees contacted, 464 nurses and 75 supervisors responded to both surveys, for a response rate of 82.27% and 92.59%, respectively. The mean age of participants was 26.65 years ($SD = 5.06$), most were women (99.6%), and the mean education level was 15.76 years ($SD = 1.67$), that is all participants had graduated from nursing school or had a higher academic qualification. Nurses reported their demographic information and evaluated their proactive personality in the first phase. Three months later, nurses assessed their altruism and work engagement. Their supervisors evaluated the team-level autonomy in the second phase. All surveys were translated from English to Chinese according to Brislin's (1980) translation-back-translation procedure. Specifically, we involved four translators in the procedure. Translators A, B, and C were bilingual researchers in the field of organizational behavior, and the fourth translator was a certified professional Chinese-English translator. Translators A and B translated the survey from English to Chinese, and they were allowed to discuss what they were doing with each other during this process. Translator C double-checked the Chinese version of the survey, and also discussed this work with translators A and B to reconcile any concerns. The resulting Chinese version of the survey was then passed to translator D for back-translation. All the translators then compared the original and back-translated surveys in English to reach final consensus on the Chinese version of the survey.

We used a Likert 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*) for all the measures.

Measurements

Proactive personality. We assessed employees' proactive personality with the shortened version (Seibert et al., 1999) of Bateman and Crant's (1993) Proactive Personality Scale. This scale contains 10 items, and a sample item is "I am constantly on the lookout for new ways to improve my life." Cronbach's α was .81 in our study.

Work engagement. Employees' work engagement was assessed with the 17-item Utrecht Work Engagement Scale developed by Schaufeli et al. (2002). A sample item is "At my work, I feel bursting with energy." Cronbach's α was .95 in our study.

Altruism. Employees' altruism was measured with five items developed by Podsakoff et al. (1990). This scale was obtained from Podsakoff and colleagues' Organizational Citizenship Behavior Scale, which contains 24 items. A sample item to measure altruism is "I help others who have been absent." Cronbach's α was .80 in our study.

Team autonomy. Team-level autonomy was assessed by each team supervisor with three items from the 12-item Team Empowerment Scale developed by Kirkman, Rosen, Tesluk, and Gibson (2004). A sample item to measure team autonomy is “My team can select different ways to do the team’s work.” In our study Cronbach’s α for team autonomy was .83.

Control variable. We controlled for team size in our model estimation, because previous researchers have found that it affects organizational citizenship behavior in teams (Pearce & Herbig, 2004).

Data Analysis

As we used a two-level data structure in this study, we conducted multilevel modeling to estimate the hypothesized model in Mplus 7.2 (Muthén & Muthén, 2012). At Level 1 (individual level), we specified the random effects of proactive personality on work engagement and altruism. At Level 2 (team level), we estimated the effect of autonomy on the two random slopes estimated in Level 1, as well as the effects of team size and autonomy on the two outcome variables.

Results

Means, standard deviations, and correlations among study variables are summarized in Table 1, in which it is shown that employee proactive personality was positively correlated with both work engagement and altruism, thereby providing preliminary support for Hypotheses 1 and 2. Unstandardized coefficients are depicted in Figure 1 and Table 2. Our findings show that team size was not significantly related to work engagement, but was negatively related to employee altruism, and these results thus provide empirical support for our control of team size in the current study.

Table 1. Means, Standard Deviations, and Correlations Among Study Variables

Variables	<i>M</i>	Within-group <i>SD</i>	Between-group <i>SD</i>	1	2	3	4
1. Proactive personality	5.02	0.78	0.37	(.81)			
2. Altruism	4.10	0.64	0.32	.28**	(.80)		
3. Work engagement	3.49	1.06	0.52	.27**	.32**	(.95)	
4. Autonomy	5.39	–	0.67	.30**	.26**	.18**	(.83)
5. Team size	6.99	–	2.69	-.09	-.20**	.01	-.35**

Note. $n = 464$ (Level 1), $n = 75$ (Level 2). Coefficient alpha reliabilities are reported in parentheses on the diagonal. ** $p < .01$.

As shown in Figure 1 and Table 2, employee proactive personality was positively related to both work engagement and altruism. Thus, Hypotheses 1 and 2 were supported. We found that team-level autonomy significantly moderated

the relationship between proactive personality and work engagement. Following Cohen, Cohen, West, and Aiken’s (2013) recommendations, we plotted the moderating effect as presented in Figure 2, in which it is shown that the positive relationship between proactive personality and work engagement was stronger with a higher level of team autonomy than with a lower level of team autonomy. Therefore, Hypothesis 3a was supported. However, team-level autonomy did not significantly moderate the random effect of employee proactive personality on altruism. Therefore, Hypothesis 3b was not supported.

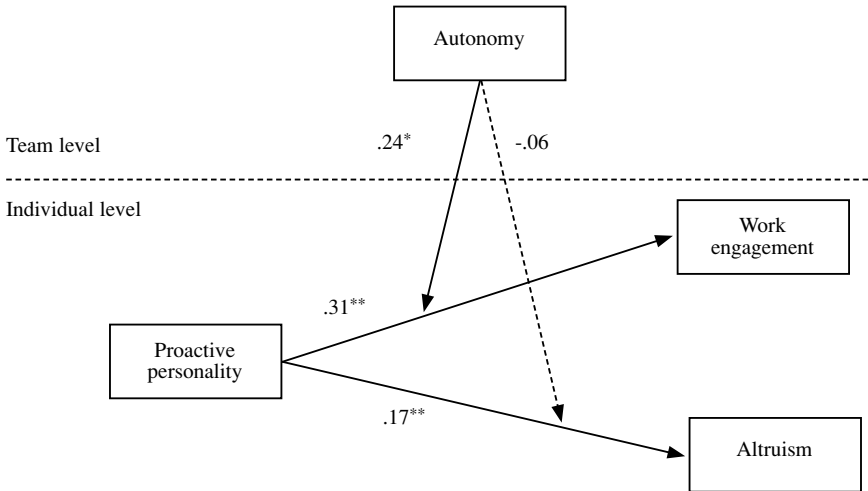


Figure 1. Unstandardized coefficients for the hypothesized model. $n = 464$ (Level 1), $n = 75$ (Level 2).

* $p < .05$, ** $p < .01$.

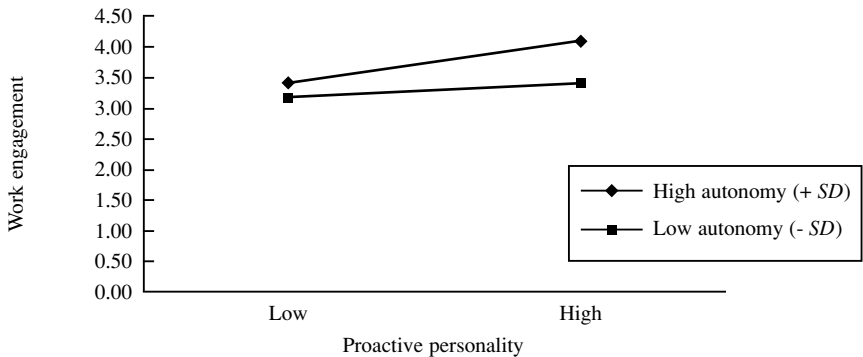


Figure 2. The moderating effect of team-level autonomy on the relationship between proactive personality and work engagement. $n = 464$ (Level 1), $n = 75$ (Level 2).

* $p < .05$, ** $p < .01$.

Table 2. *Unstandardized Coefficients for the Hypothesized Model*

Variables	Work engagement		Altruism	
	Estimate	SE	Estimate	SE
Constant	3.49**	0.05	4.10**	0.03
Individual-level effect				
Proactive personality	0.31**	0.07	0.17**	0.05
Residual variance	0.96**	0.09	0.34**	0.03
Team-level effect				
Team size	0.04	0.02	-0.03**	0.01
Autonomy	0.34**	0.08	0.20**	0.04
Proactive personality × autonomy	0.24*	0.10	-0.06	0.09
Residual variance	0.05	0.05	0.01	0.01

Note. $n = 464$ (Level 1), $n = 75$ (Level 2). * $p < .05$, ** $p < .01$.

Discussion

We examined the effects of proactive personality on employees' inrole performance investment (work engagement) and extrarole behavior (altruism), as well as the moderating effect of situational strength (team-level autonomy) on these relationships. We found that proactive personality was significantly positively related to both work engagement and altruism. The relationship between employee proactive personality and work engagement was stronger when employees were in a team with a higher level of autonomy compared to when the employees were in a weaker team with a lower level of autonomy.

Understanding of proactive personality is enriched in our study. First, our finding that proactive personality was positively related to both work engagement and altruism extends the number of positive effects of proactive personality. This extension is valuable because in this finding the overall work experience of proactive employees is depicted and potential interaction patterns among team members are revealed. This is particularly salient for investigating altruism as a potential outcome of proactive personality, because altruistic behavior reflects employees' behavior toward their colleagues and, thus, a potential interaction pattern among team members is captured. Further, our finding that team-level autonomy significantly moderated the relationship between proactive personality and work engagement confirms the importance of the perspective of interaction between person and situation, and provides practical implications for organizational operation. For example, our finding implies that one of the possible ways for managers of organizations or teams of employees to amplify proactive work engagement is to provide more autonomy for the team, and this can be achieved, for example, by allowing the team members as a group to select different ways to accomplish the work, and by allowing the team to make some decisions without reporting to a more senior manager.

However, team-level autonomy did not significantly moderate the relationship between proactive personality and altruism. We believe that this result is aligned with the major characteristic of proactive personality as well as with altruism itself. That is, proactive individuals show initiative, take action, and persevere (Crant, 1995) to make a difference. Therefore, our finding confirms that this proactive behavior may be relatively stable across situations, for example, team-level autonomy. In addition, altruism is also salient. Because the ultimate outcome of altruism is to benefit the organization, it is very likely that managers encourage employee altruism to enhance organizational effectiveness. As such, the proactive behavior of altruism is less likely than other proactive behaviors are to be regulated or constrained by situational factors in an organization.

There are some limitations in this study. First, we did not directly measure and analyze the actual performance and interpersonal interaction patterns of the nurses and supervisors as potential outcomes. Whereas the possible effects of employees' work engagement and altruism have been shown to enhance individual performance and organizational effectiveness (e.g., Bachrach, Powell, Collins, & Richey, 2006; Christian et al., 2011; Rich et al., 2010), owing to lack of resources and opportunity during the data collection, we did not examine the indirect effects of work engagement and altruism or the mediating process. We therefore recommend that future researchers empirically examine the theoretical mechanism of how proactive personality benefits organizations.

Second, from the perspective of interaction of person and situation, our findings revealed team-level autonomy as a boundary condition of the relationship between proactive personality and its consequences. However, future researchers could explore other possible boundary conditions from other theoretical perspectives. For example, as the team leader often acts as a role model for team members, employee behavior is likely to be influenced by this social learning effect (Bandura, 1977).

Finally, because we measured each study variable at a single time point, change in each variable over time was not observed. An exploration of the process of change is valuable because we expected employees' altruism toward their colleagues to provide basic interaction patterns among team members. Therefore, we recommend that future researchers conduct longitudinal research and also take a social network approach to detect change in employee attitude and behavior as well as the emergence of their interaction patterns.

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