

The Role of Proactive Personality in Job Satisfaction and Organizational Citizenship Behavior: A Relational Perspective

Ning Li
Texas A&M University

Jian Liang
Shanghai Jiao Tong University

J. Michael Crant
University of Notre Dame

Drawing from a relational approach, the authors conceptualize the quality of leader–member exchange as a mediator and procedural justice climate as a contextual moderator for understanding the role of proactive personality in job satisfaction and organizational citizenship behavior. Data from a sample of 200 Chinese employees within 54 work groups were used to examine the hypothesized models. Results show that having a proactive personality was associated with employees establishing a high-quality exchange relationship with their supervisors; in turn, the quality of leader–member exchange was associated with greater job satisfaction and more organizational citizenship behaviors. Additionally, the relationship between proactive personality and organizational citizenship behavior was positively moderated by procedural justice climate within the group. Implications for management theory and practice are discussed.

Keywords: proactive personality, LMX, procedural justice climate, relational approach

Consensus is growing that employee initiative and proactivity are critical drivers of organizational effectiveness, especially when employment arrangements become more flexible than ever before (Crant, 2000; Grant & Ashford, 2008; Parker & Collins, in press; Van Dyne, Kossek, & Lobel, 2007). Defined as a disposition toward taking personal initiative to influence one's environment, proactive personality has received considerable attention in this evolving literature (Bateman & Crant, 1993; Crant, 2000). A recent meta-analytic review indicates that proactive personality is related to a variety of desirable individual and organizational outcomes (Fuller & Marler, 2008).

Despite promising progress in the proactive personality literature, several questions are open to further investigation. First, although a broad range of criteria has been examined, some fundamental organizational behavior constructs have received insufficient attention, among them, job satisfaction and organizational citizenship behavior (OCB). Job satisfaction captures the degree to

which the employee is happy with the job (Hackman & Oldham, 1980), and OCB represents behavior that is largely discretionary but which in the aggregate promotes effective organizational functioning (Organ, 1988). There is theoretical reason to expect a relationship between proactive personality and both satisfaction and OCBs, based on the proposition that proactive people create favorable situations conducive to job satisfaction and work performance. Second, as theories of proactive personality evolve, it is important to specify mediating relationships so as to better understand the process by which proactive personality translates into meaningful action (e.g., Brown, Cober, Kane, Levy, & Shalhoop, 2006; Parker, Williams, & Turner, 2006; Thompson, 2005). The set of mediators studied in the proactivity literature fails to fully capture relational linkages in the workplace, and such relationships have implications for employees' attitudes and behaviors (Chen, Boucher, & Tapias, 2006). Third, anecdotal evidence suggests that proactive persons may sometimes engage in misguided and counterproductive behaviors (Campbell, 2000). Little is known about the conditions under which organizations can reap the benefits associated with employees' proactivity rather than be harmed by it. Few studies have investigated the boundary conditions that may moderate the effects associated with proactivity (for exceptions, see Erdogan & Bauer, 2005, and Fuller, Marler & Hester, 2006), and a recent review suggested that more work is needed to understand when proactive behavior is viewed as constructive or destructive (Grant & Ashford, 2008).

Using data from working adults in the People's Republic of China, we addressed these unanswered questions in this study by testing models of mediation and moderation processes linking proactive personality to outcomes. Our choice of mediator and moderator variables was guided by relational theories of organizational attitudes and behaviors. A relational approach assumes

Ning Li, Department of Management, Mays Business School, Texas A&M University; Jian Liang, Department of Organization and Management, Antai College of Economics and Management, Shanghai Jiao Tong University, Shanghai, China; J. Michael Crant, Department of Management, University of Notre Dame.

This research was partially supported by Shanghai Pujiang Program Grant 09PJ032, awarded to Jian Liang. We thank Yaping Gong for helpful comments on earlier drafts of this article. Also thanks to Zhitao Xie, Feng Li, and Mengyi Chen for their assistance on project management, data collection, and data entry.

Correspondence concerning this article should be addressed to Ning Li, Department of Management, Mays Business School, Texas A&M University, 4221 TAMU, College Station, TX 77843-4221. E-mail: nli@mays.tamu.edu

that employee–management relations are central to the context of work and that organizational behavior is shaped by the complex interplay between individual members and the larger systems they encounter (e.g., the organization or management; Bradbury & Lichtenstein, 2000; Katz & Kahn, 1966; Weick, 1979). Positive transaction processes build and maintain predictable, reciprocating systems of relationships (Blau, 1964; Cropanzano & Mitchell, 2005). Because proactive personality implies a willingness to get involved and take initiative to identify and make contributions (Crant, 2000), we considered whether proactive personality (and, by extension, the behaviors manifested by proactive employees) is a mechanism by which employees might influence exchange relationships in organizations. Proactive employees actively create and manage exchange relationships within the organization and ultimately display positive work attitudes and behaviors.

This study extends previous research in four ways. First, we studied both attitudinal (job satisfaction) and behavioral (OCB) employee outcomes as dependent variables ultimately determined in part by proactive personality. As two of the most commonly studied constructs in the field, job satisfaction and OCB have important implications for organizational outcomes such as performance, turnover, and absenteeism (Podsakoff, Whiting, Podsakoff, & Blume, 2009; Staw, Bell & Clausen, 1986). Second, we examined a relational mechanism by including leadership–member exchange (LMX) as a mediator to explain how proactive personality manifests its effects on employee outcomes. Admittedly, relational mechanisms share some conceptual overlap with the social capital perspective (e.g., network building; Thompson, 2005); however, LMX focuses on the depth and quality of one's relationship with the immediate supervisor, and relationship building is more about the number of connections one has at all levels of the organization. In addition, we considered another relational variable, procedural justice climate, as a moderator of the relationship between proactive personality and employee outcomes. Third, our identification of mediators and moderators of the proactive personality–outcome variable relationship is a response to calls to identify processes by which proactivity manifests itself into meaningful outcomes, as well as to specify the boundary conditions surrounding the desirability of proactivity in organizations (e.g., Crant, 2000; Thompson, 2005). Finally, we addressed the generalizability of proactive personality within the People's Republic of China; most extant studies have collected data from western samples.

Theoretical Framework

Proactive Personality

As a narrowly defined personality trait, proactive personality describes a behavioral tendency to identify opportunities to change things at work and to act on those impulses (Crant, 2000). Compared to more passive workers, proactive employees are more likely to actively shape and manipulate the environment in order to accomplish their goals. They prefer not to passively wait for information and opportunities to come to them (Crant, 2000); rather, their initiative leads to a number of cognitions and behaviors, such as identifying new ideas for improving work processes, updating their skills, and seeking to better understand company politics (Seibert, Kraimer, & Crant, 2001).

Proactive personality and job satisfaction. The dispositional approach proposes that job satisfaction may be partly determined by one or more enduring characteristics of people, in part on the basis of evidence that job satisfaction is relatively stable over time and across situations (e.g., Ilies & Judge, 2003; Staw et al., 1986; Staw & Cohen-Charash, 2005). Consistent with this perspective, meta-analytic results have indicated that proactivity is strongly related to subjective career satisfaction (job and career satisfaction) (Ng, Eby, Sorensen, & Feldman, 2005). Proactivity is associated with job satisfaction because proactive people tend to create conditions more conducive to personal success at work.

Proactive personality and OCB. Proactive personality and OCB share a focus on behaviors that go beyond direct role requirements; both contribute indirectly to overall organizational effectiveness (Frese, Kring, Soose, & Zempel, 1996). Because proactive employees are willing to actively seek opportunities to help their organizations and engage in activities that extend beyond formal responsibilities, a relationship between proactive personality and OCBs has been proposed (Campbell, 2000; Crant, 2000). Employees with proactive personalities are more motivated to take initiative to contribute, which is likely to enhance their willingness to make discretionary contributions in the form of OCBs. For example, proactive personality was positively associated with individuals' participation in organizational improvement initiatives (Parker, 1998). Therefore, we expected a positive relationship between the two constructs.

LMX as a Relational Mediator

We expected the relationships between the proactive personality and both job satisfaction and OCB to be mediated by LMX. Because supervisors are valuable sources of work-related information, knowledge, and experience (Janssen & Van Yperen, 2004), establishing a high-quality exchange relationship with immediate supervisors facilitates information exchange and provides a mechanism for achieving goals of self-development and organizational improvement. We expected that proactive employees would more frequently seek social exchanges with their supervisors in order to discuss and learn how to avoid potential problems and identify opportunities to improve their work situations. That is, the proactive dispositional trait will influence the way in which employees approach, interpret, and establish relationships with their supervisors.

From the supervisor's perspective, because proactive employees have a strong commitment to work goals and exhibit high levels of effort and performance (Campbell, 2000), supervisors are motivated to provide them with more support and greater autonomy. Empirical research suggests that autonomy is associated with the exhibition of proactive behaviors (for a review, see Grant & Ashford, 2008). Supervisors appreciate having employees who can initiate, control, and carry out their tasks without excessive supervision. This line of reasoning is consistent with the vertical dyadic linkage conceptualization of LMX, which holds that leaders test subordinates through a series of role-making episodes (Graen & Scandura, 1987; Graen & Uhl-Bien, 1995). Therefore, it is reasonable to believe that both the proactive employee and his or her supervisor are motivated to develop and maintain a high-quality exchange relationship. Consistent with this idea, empirical evidence indicates that subordinate feedback seeking—a type of

proactive behavior—is associated with the quality of LMX, if the supervisor views it as driven by performance motives (Lam, Huang, & Snape, 2007).

There is strong empirical support for the effects of exchange quality on employees' work attitudes and behaviors (Gerstner & Day, 1997; Graen & Uhl-Bien, 1995). When proactive employees establish a high-quality exchange relationship with supervisors, they can count on each other for support and loyalty; share important informational and behavioral resources; and base the exchange process on mutual trust, respect, and obligation (Graen & Uhl-Bien, 1995; Liden & Maslyn, 1998). Therefore, proactive employees are likely to feel a sense of self-determination on the job and to perceive themselves to be responsible for work actions. The support and backing they receive from their supervisors help them to overcome work-related problems, and supervisor/subordinate relationships have long been held to be a determinant of job satisfaction (e.g., Locke, 1976). At the same time, subordinates may reciprocate by performing spontaneous extrarole behaviors going beyond formal expectations. A meta-analysis showed that the correlation between LMX and overall OCB is on the order of .32 (Hackett, Farh, Song, & Lapierre, 2003). The relationship between proactive personality and the outcome variables occurs in part through LMX because proactive personality manifests itself in developing a strong relationship with one's supervisor, which then leads to various outcomes.

Hypothesis 1a: LMX mediates the relationship between proactive personality and job satisfaction.

Hypothesis 1b: LMX mediates the relationship between proactive personality and OCB.

Procedural Justice Climate as a Relational Moderator

Consistent with recent calls for the examination of contextual moderators for proactive personality (e.g., Crant, 2000; Erdogan & Bauer, 2005; Grant & Ashford, 2008; Thompson, 2005), procedural justice climate was included as an additional relational variable so we could examine its interplay with proactive personality on employee outcomes. Defined as organization members' shared and enduring perceptions of how they are treated in the workplace (Naumann & Bennett, 2000), procedural justice climate takes a relational perspective by suggesting that employees derive a common understanding of how group members are treated by the organization through social interactions and shared experiences (Schneider & Reichers, 1983). This is consistent with our theoretical framework.

According to the principle of trait activation, personality traits require trait-relevant situations and cues for their expression. In other words, an individual behaves in traitlike ways only in those situations that are relevant to a given trait (Tett & Burnett, 2003; Tett & Guterman, 2000). According to trait activation theory, the relationship between proactive personality and employee outcomes may differ depending on the context because proactive behavior is elicited only under certain cues. Procedural justice climate provides such cues. Fair procedures are viewed as an indication of the extent to which the organization values a particular group, and they convey information about the quality of group members' relationship with the organization. In a social environment with a high procedural justice climate, proactive employees

will find it easier and more comfortable to display initiative (Frese & Fay, 2001). The exhibition of personal initiative will become a desirable way to reciprocate the organization's fair treatment. Thus, procedural justice climate was expected to activate the expression of employees' proactive disposition in the organization.

Conversely, when employees perceive that the organization implements its procedures unfairly, they tend to believe that their relationship with the organization is tainted (Tyler & Lind, 1992). They believe that their interests are not cared for and protected by the organization (Cropanzano, Byrne, Bobocel, & Rupp, 2001). Unfair procedures will evoke negative feelings about the organization, because employees may believe that their group is being exploited and their coworkers are susceptible to unfair treatment (Lind & Earley, 1992). If such negative experience is shared within the group, group members will perceive the work setting as unpleasant and not satisfactory for them. Meanwhile, the low quality of exchange relationships also reduces their desire to go above and beyond role requirements via extrarole behaviors. Consequently, an unjust environment would not only fail to cue or elicit proactive behaviors but might actually inhibit individual proactive initiatives.

In summary, we propose, consistent with trait activation theory, that procedural justice climate serves as a cue that proactive behaviors are appropriate. Personality traits shape the cognitive and behavioral reactions triggered by perceptions of fair or unfair treatment (Colquitt, Scott, Judge, & Shaw, 2006). Furthermore, personality traits can make people more sensitive to fairness and lead them to emphasize justice information; relevant personality traits amplify the effects of justice on attitudes and behaviors (Colquitt et al., 2006). As a result, both job satisfaction and OCBs resulting from an employee's proactive initiatives are more likely to occur in conditions of higher procedural justice. Existing empirical findings are consistent with the moderation implied by trait activation theory. For example, Erdogan and Bauer (2005) found that proactive personality was positively related to intrinsic career success only under high-fit situations (person-organization fit and person-job fit). Proactive individuals are more motivated than less proactive individuals to take advantage of contextual resources and opportunities (Fuller et al., 2006). A recent study found that proactive behavior is associated with more favorable performance evaluations when employees express strong prosocial values or low negative affect (Grant, Parker, & Collins, 2009). Taking these findings together, we hypothesized as follows:

Hypothesis 2a: Procedural justice climate will positively interact with proactive personality on job satisfaction, such that the relationship between proactive personality and job satisfaction is stronger when procedural justice climate is higher.

Hypothesis 2b: Procedural justice climate will positively interact with proactive personality on OCB, such that the relationship between proactive personality and employee OCB is stronger when procedural justice climate is higher.

Method

Participants and Procedures

Participants were drawn from seven state-owned companies in the manufacturing, electronics, telecommunications, and hotel industries in three Chinese cities. The use of multiple industries

avoided contextual constraints associated with any particular organization (Johns, 2001). Designated coordinators in each company returned the completed questionnaires to the researchers. Informed consent was obtained before the study began, and the data collection process ensured confidentiality of the responses.

Matching questionnaires were distributed to 289 employees within 92 functional groups organized according to similarity in the skills, expertise, and resource use of members; 200 usable responses from 54 work groups were obtained for a response rate of 69.2%. Group size ranged from three to seven. The average age was 32 years, and 49% of the respondents were male. With regard to education, 12% reported middle school or below, 42% reported vocational training, and 46% were university graduates. Average tenure with the present employer was 8.04 years ($SD = 8.27$ years).

Measures

Data were collected from two sources: Subordinates completed measures of proactive personality, LMX, job satisfaction, and procedural justice, and supervisors completed the OCB measure. A 7-point Likert scale was used for all study items. All materials were presented in the Chinese language. All the English items were translated into Chinese following the standard procedures (Brislin, 1986).

Proactive personality. Proactive personality was measured with six items adapted from Bateman and Crant's (1993) scale. The six items have been used in previous studies (e.g., Parker, 1998) and show strong correlations with the original 17-item scale (Claes, Beheydt, & Lemmens, 2005). A sample item is "If I see something I don't like, I fix it." Cronbach's alpha was .71.

LMX. LMX was measured with eight items adapted from T. N. Bauer and Green (1996). A sample item is "How would you characterize your working relationship with your leader?" (1 = *extremely ineffective*, 7 = *extremely effective*). Cronbach's alpha for this scale was .85.

Job satisfaction. Job satisfaction was measured with three items developed by Hackman and Oldham (1980). Cronbach's alpha for this scale was .83.

OCB. We measured OCB using an indigenous scale developed by Farh, Earley, and Lin (1997). Its validity has been successfully replicated in the Chinese context (e.g., Yang, Mossholder, & Peng, 2007). There are five dimensions of OCB embedded within this scale: identification with the company, altruism, conscientiousness, interpersonal harmony, and protecting company resources. A sample item is "willing to help colleagues solve work-related problems." We made our hypotheses about OCB at the overall construct level and did not consider differential effects across its dimensions. Therefore, we combined the five dimensions to generate an overall score of OCB in the following analyses. Cronbach's alpha for this scale was .90.

Procedural justice climate. We used a seven-item scale created specifically for use with Chinese samples (Farh et al., 1997) to measure two key components of procedural justice: participation and appeal (Farh et al., 1997). Following Farh et al. (1997), we asked respondents to reflect on the context of pay and performance appraisal, key issues in the context of Chinese state-owned companies (Liu, 2003). Sample items include "To what extent do managers at all levels participate in the decisions" and "My com-

pany takes employees' opinions into account in designing those policies." Because our measure of procedural justice climate was based on employee perceptions of pay and performance appraisals, we examined the extent to which it reflects perceptions similar to Colquitt's (2001) measure of procedural justice, which has a broader conceptualization of justice. In a pilot test of 90 MBA students we conducted in a Chinese university, the correlation between the two measures was .69 ($p < .01$), which suggests that the two measures overlap substantially. Cronbach's alpha for the seven-item scale in the current study was .76.

Work groups differ from each other in terms of their strategic importance to the organization, so organizational resources may be allocated unequally across these groups or departments. There is likely to be significant variation among work groups with respect to the degree to which members perceive that fair formal procedures exist in the organization. An investigation of within-group agreement revealed acceptable levels of agreement (average = .86, median = .88). Intraclass correlations (ICCs) were as follows: ICC1 was .32, ICC2 was .63, and there was significant between-group variance in procedural justice climate, $F(54, 146) = 2.73$, $p < .01$. With those supportive indices, we aggregated member responses to form a single justice score for each work group.

Control variables. Age, education, and gender served as our primary control variables. Gender was dummy coded as 1 = male, 0 = female. The length of the dyadic relationship was measured for its potential effects on the quality of supervisor-subordinate relationships (T. N. Bauer & Green, 1996; Liden, Wayne, & Stilwell, 1993). Finally, individual procedural justice perception was included to separate its effect from that of group justice climate.

Results

Measurement Properties

We performed an exploratory factor analysis and a series of confirmatory factor analyses to assess our measures. An exploratory factor analysis of all items from employees' ratings (24 items) explained 55% of the total variance. All items loaded on the intended construct, although factor loadings for three items were below .4. Given our relatively small sample size, we constructed item parcels in the confirmatory factor analyses. Three indicators were formed for each latent construct that has more than three items by sequentially averaging the items with the highest and lowest loadings respectively. We treated the five dimensions of OCB as its indicator in the analyses. Three alternative models were examined against the baseline five-factor model. As shown in Table 1, the baseline five-factor model fit the data reasonably well, $\chi^2(109) = 250.93$, root mean square error of approximation = .077, nonnormed fit index = .93, comparative fit index = .94, whereas the other alternative models all exhibited significantly worse fit than the baseline model. Thus, we treated the five variables as independent constructs in further analyses.

Descriptive statistics. The means, standard deviations, and correlations among variables are shown in Table 2. We assigned the means of procedural justice climate to members of the same group to calculate the individual-level correlations.

Table 1
Comparison of Measurement Models for Study Variables

Model	Description	χ^2	<i>df</i>	$\Delta\chi^2$	RMSEA	NNFI	CFI
Null model	All the indicators are independent.	5324.87	153				
The baseline five-factor model	Subordinates' survey: proactive personality, LMX, job satisfaction, procedural justice; supervisors' survey: OCB.	250.93	109		.077	.93	.94
Model 1	Four factors: LMX and procedural justice were combined into one factor.	448.37	113	197.44**	.120	.87	.89
Model 2	Four factors: LMX and job satisfaction were combined into one factor.	497.31	113	246.38**	.120	.86	.89
Model 3	Two factors: Supervisor ratings were combined into one factor; subordinate ratings were combined into one factor.	787.09	118	536.16**	.160	.76	.79

Note. RMSEA = root mean square error of approximation; NNFI = nonnormed fit index; CFI = comparative fit index; LMX = leader-member exchange; OCB = organizational citizenship behavior.

** $p < .01$, two-tailed.

Hypothesis Testing

We conducted a series of random coefficient models to examine the two hypotheses developed in this study, while controlling for age, gender, education, length of relationship, and individual justice perception at Level 1. We grand mean centered the Level 1 predictors, so as to reduce the potential for multicollinearity in Level 2 estimation. The results are presented in Table 3.

The mediating effect of LMX (Hypothesis 1). We employed the causal steps described by Baron and Kenny (1986) to evaluate the mediating role of LMX for the relationships between proactive personality and the two outcome variables. As shown in Model 1 of Table 3, the RCM results suggested that when we controlled for the significant effect of age ($\gamma = .03$, $p < .01$) and individual justice perception ($\gamma = .50$, $p < .01$), proactive personality still had positive and significant effects on job satisfaction ($\gamma = .26$, $p < .01$). The effect of proactive personality on OCB was not significant ($\gamma = -.02$, $p = .55$; see Model 4). In addition, as shown in Model 7, proactive personality had significant positive effects on LMX ($\gamma = .32$, $p < .05$).

In Step 3, both proactive personality and LMX were included in Model 2. The estimation results showed that LMX was signifi-

cantly related to job satisfaction ($\gamma = .41$, $p < .01$), and the effect of proactive personality became insignificant ($\gamma = .13$, $p = .11$). Therefore, LMX mediated the effects of proactive personality on job satisfaction, providing support for Hypothesis 1a. Model 5 showed that LMX was significantly related to OCB ($\gamma = .08$, $p < .05$). The effect of proactive personality on OCB in Model 4 failed to achieve significance and did not meet the requirement for testing the mediating effect of LMX according to Baron and Kenny (1986).

Although the causal steps strategy is the most commonly used method of assessing mediation, some argue that a significant total effect of independent variable (i.e., proactive personality) on dependent variable (i.e., OCB) is not necessary (e.g., James, Mulaik, & Brett, 2006). Therefore, we reexamined the proactive personality-LMX-OCB link using the bootstrap approach, which is more powerful than the causal step procedure for small samples (Preacher & Hayes, 2004, 2008). The bootstrap results are reported in Table 4. The results indicate that the indirect effect of proactive personality on OCB through LMX was significant ($\gamma = .07$, $p < .01$, 95% CI [.03, .12]) and thus support Hypothesis 1b. In order to examine whether the results are consistent across OCB dimen-

Table 2
Means, Standard Deviations, Coefficient Alphas, and Intercorrelations Between Variables in the Present Study

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9
1. Job satisfaction	4.81	1.14	.83								
2. OCB	5.49	0.59	.24**	.90							
3. Proactive personality	4.58	0.82	.22**	.05	.71						
4. LMX	4.80	0.91	.51**	.26**	.36**	.85					
5. Procedural justice climate	4.18	0.64	.32**	.26**	.13*	.35**	.76				
6. Age	32.0	8.33	.15*	-.07	-.08	-.06	-.05	—			
7. Gender (1 = male, 0 = female)	0.49	0.50	-.02	-.02	.01	.17**	.04	.09	—		
8. Education	2.63	0.72	.02	-.03	-.08	-.14*	-.05	.36**	-.17*	—	
9. Length of relationship	2.71	3.21	.05	.15*	.04	.04	.01	.41**	-.01	.13 [†]	
10. Procedural justice perception	4.18	0.99	.51**	.20**	.04	.47**	.64**	.03	-.04	.01	.03

Note. $N = 200-223$, listwise deletion. Alphas are shown on the diagonal. Team mean of procedural justice climate was assigned to members of the same team to calculate the individual-level correlations. Thus, the correlations and significance tests associated with these variables should be interpreted with caution. OCB = organizational citizenship behavior; LMX = leader-member exchange.

[†] $p < .10$, two-tailed. * $p < .05$, two-tailed. ** $p < .01$, two-tailed.

Table 3
Results of Random Coefficient Modeling Analyses With Job Satisfaction, OCB, and LMX

Predictor	Job satisfaction			OCB			LMX
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Level 1							
Intercept	2.11** (.46)	2.78** (.45)	2.44** (.48)	5.24** (.24)	5.38** (.25)	5.32** (.24)	-1.66** (.37)
Age	.03** (.01)	.03** (.01)	.03** (.01)	.01 (.00)	.00 (.00)	.01 (.00)	.00 (.01)
Gender	-.07 (.13)	-.15 (.12)	-.08 (.13)	-.01 (.06)	-.03 (.06)	.01 (.06)	.19 [†] (.12)
Education	-.03 (.10)	.01 (.10)	-.06 (.09)	-.02 (.05)	-.01 (.04)	-.03 (.05)	-.08 (.08)
Length of relationship	-.01 (.02)	-.01 (.02)	-.01 (.02)	.01 (.01)	.01 (.01)	.01 (.01)	.00 (.02)
Individual justice perception	.50** (.07)	.32** (.07)	.43** (.09)	.06 [†] (.04)	.02 (.04)	.03 (.04)	.44** (.06)
Proactive personality (PP)	.26** (.09)	.13 (.08)	.26** (.10)	-.02 (.04)	-.05 (.04)	-.02 (.04)	.32** (.07)
LMX		.41** (.08)			.08* (.04)		
Level 2							
Procedural justice climate (PJC)			.12 (.15)			.25* (.10)	
Cross-level							
PP × PJC			-.07 (.14)			.12* (.05)	
Model deviance	548.32	528.81	541.23	295.69	296.30	291.14	473.08

Note. Team $n = 54$; employee $n = 200$. In all models, gamma coefficients are presented and the corresponding standard errors are reported in parentheses. LMX = leader-member exchange; OCB = organizational citizenship behaviors.

[†] $p < .10$, two-tailed. * $p < .05$, two-tailed. ** $p < .01$, two-tailed.

sions, we conducted a fine-grained analysis by creating two broad dimensions of OCBs directed toward other people (OCB-I) and the organization (OCB-O; Williams & Anderson, 1991). The results revealed consistent findings: LMX mediated the positive effects of proactive personality on both OCB dimensions. The indirect effects were .06 ($p < .01$, 95% CI [.02, .11]) and .07 ($p < .01$, 95% CI [.03, .13]) for OCB-I and OCB-O, respectively.

The moderating effect of procedural justice climate (Hypothesis 2). While controlling the effect of demographics and individual justice perceptions, we regressed the slope estimates for proactive personality on procedural justice climate at Level 2 to test Hypothesis 2. The results presented in Table 3 indicate that

there was no significant interaction for job satisfaction ($\gamma = -.07$, $p = .59$; see Model 3). In contrast, the results suggested that this effect was significant for OCB ($\gamma = .12$, $p < .05$; see Model 6). The positive sign before the gamma weight of the interaction term is consistent with Hypothesis 2b. The fine-grained analysis indicated that this cross-level interaction was significant for OCB-I ($\gamma = .15$, $p < .05$) and reached near significance for OCB-O ($\gamma = .10$, $p < .10$). Taken together, supportive evidence was found for Hypothesis 2b but not Hypothesis 2a.

In order to examine the form of this interaction, we plotted simple slopes using the Johnson-Neyman technique developed by D. J. Bauer and Curran (2005). The plot is presented in Figure 1.

Table 4
Results of Bootstrap Analyses on the Mediating Role of LMX in the Proactive Personality-Individual Outcome Relationships

Bootstrap estimate	Job satisfaction		OCB		OCB-I		OCB-O	
	β	SE	β	SE	β	SE	β	SE
Control variables								
Gender	-.16	.13	-.07	.08	-.12	.08	-.04	.09
Age	.03**	.01	-.01	.01	-.01	.01	-.01	.01
Education	.02	.10	.01	.06	-.04	.06	.03	.06
Length of relationship	-.01	.02	.04**	.01	.04**	.01	.03**	.02
Path analysis								
X-M	.36**	.08	.36**	.08	.36**	.08	.36**	.08
M-Y	.60**	.08	.19**	.05	.17**	.05	.19**	.05
Total effect	.31**	.09	.03	.05	.02	.05	.02	.06
X-Y	.09	.08	-.04	.05	-.04	.05	-.01	.06
Bootstrapping								
Indirect effect	.21**	.06	.07**	.02	.06**	.02	.07**	.03
BCa 95% CI	.10	.36	.03	.12	.02	.11	.03	.13
R^2	.31**		.11**		.11**		.09**	

Note. LMX = leader-member exchange; OCB = organizational citizenship behaviors; OCB-I = dimensions of OCB directed toward other people; OCB-O = dimensions of OCB directed toward the organization; SE = standard error; X refers to proactive personality; M refers to LMX; Y refers to the two outcomes; BCa means bias corrected, 1,000-bootstrap samples; CI = confidence interval.

** $p < .01$, two-tailed.

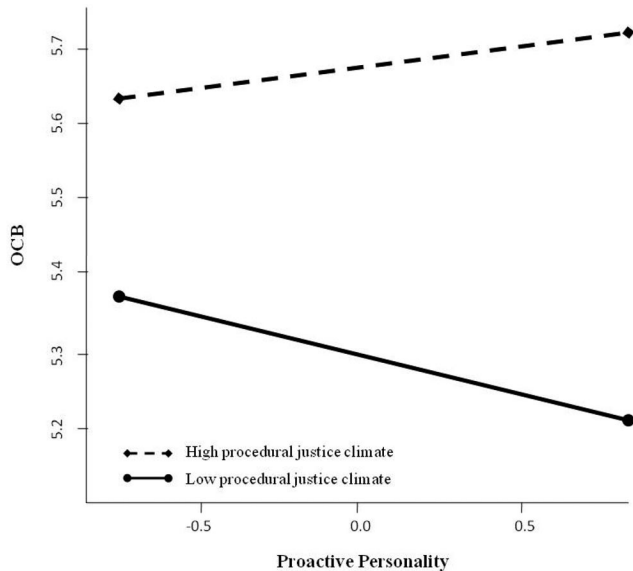


Figure 1. Cross-level moderating effects of procedural justice climate (PJC) on the relationship between proactive personality and organizational citizenship behavior (OCB).

As proactive personality increased, higher levels of OCBs were displayed by those reporting a high procedural justice climate, although the term failed to reach significance ($\beta = .05, p = .33$). For those reporting low procedural justice climate, increased levels of proactive personality were associated with lower levels of OCBs ($\beta = -.10, p < .05$). Additional analyses revealed that there were positive nonsignificant correlations between proactive personality and OCB-I ($\beta = .09, p = .13$) and OCB-O ($\beta = .03, p = .66$) when justice climate was high; in contrast, there were negative significant correlations between proactive personality and OCB-I ($\beta = -.11, p < .05$) and OCB-O ($\beta = -.09, p < .10$).¹

Discussion

Drawing from a relational approach, we examined models linking proactive personality to job satisfaction and OCB that included the quality of LMX as a mediator and procedural justice climate as a moderator. Our results showed that proactive personality was associated with establishing a high-quality relationship with one's supervisor. In turn, the quality of LMX served as a linking mechanism, providing an explanation as to the process by which proactive employees experience greater job satisfaction and more OCBs. Furthermore, our results indicated a positive interaction between proactive personality and procedural justice climate within the work group in predicting OCB. These results offer glimpses into the mechanisms by which proactive personality manifests itself in work outcomes and the boundary conditions surrounding its effectiveness.

Theoretical and Managerial Implications

First, our study provides an interpersonal mechanism for understanding the role of proactive personality in organizations. Supervisors largely determine important subordinate outcomes (e.g., job

assignment, promotion, performance appraisal). The exchange relationship between an employee and her or his supervisor is an important interpersonal connection for proactive employees, in part because it is a central part of the process by which proactive employees experience job satisfaction and exhibit citizenship behaviors. Proactive employees actively manage relationships with their supervisors and ultimately experience greater job satisfaction than do their less proactive coworkers. The present study provides a relational-based explanation for understanding the critical behavioral tactics of proactive employees in organizations. Our results contribute to addressing the question posed by Seibert et al. (2001): "What do proactive employees do?"

Through an examination of the personal attributes associated with the quality of LMX (e.g., Janssen & Van Yperen, 2004; Phillips & Bedeian, 1994), the current study also contributes to the evolution of LMX theory. Gerstner and Day (1997) suggested that researchers need to investigate robust dispositional characteristics that may be associated with LMX development. Our findings suggest that proactive personality is one such trait.

In this study, we found that procedural justice climate positively moderated the relationship between proactive personality and employee OCBs. The plot of the interaction suggests that proactive personality is associated with an increase in OCB when a positive justice climate exists (although the slope was statistically insignificant) and is negatively associated with OCB when a low justice climate exists. Our results contribute to efforts to identify the boundary conditions surrounding proactivity (Crant, 2000; Erdogan & Bauer, 2005), and they contribute to the contemporary justice literature by illustrating the enhancement effect of proactive personality on procedural justice climate as an enduring individual characteristic (Rupp, Bashshur, & Liao, 2007). Few studies examine moderators of procedural justice, and it is also rare that justice moderators are explored with behavioral outcomes (Colquitt et al., 2006).

The cross-level interaction is relevant to the issue of whether employees' enterprising qualities are universally desirable or whether particular job and organizational circumstances make them relatively more or less valuable to a manager or organization (Campbell, 2000). Compared with passive individuals, proactive employees are more likely to perceive strong obligations to reciprocate their organizations' fair treatment through actions such as OCBs. But when procedural justice climate was low, proactive employees tended to display fewer OCBs. One explanation for this finding is that justice is valued because it signifies adherence to prevailing moral standards (Cropanzano et al., 2001; Folger, Cropanzano, & Goldman, 2005). It has been argued that violations of justice principles can trigger "deontic anger," which may prompt retaliatory behaviors even when such actions are not rational (Folger et al., 2005). Under injustice conditions, proactive employees are likely to shift their proactivity to exhibit more voice, cynicism, and absenteeism behavior, rather than citizenship behav-

¹ Because this study found significant mediation and moderation relationships, we ran follow-up analyses to examine the possibility of moderated mediation: Is the mediating effect of LMX moderated by procedural justice climate? Using the bootstrap analysis procedures designed by Edwards and Lambert (2007), we found no evidence of mediated moderation.

iors, as manifestations of deontic anger. The complex relationships among proactive personality, situational cues, and types of employee proactive behaviors should be further explored.

Finally, several findings might have practical implications. We found, consistent with prior studies conducted in western contexts, that proactive personality is a useful explanatory variable in China; this finding extends its predictive validity. Chinese organizations may consider proactive personality as part of a broader set of criteria for selecting and promoting employees. Our results also reinforce the importance of treating people fairly at work and creating a just climate; the fact that these results were obtained in the context of several state-owned enterprises in China provides powerful evidence for the pervasiveness of the concept of procedural justice. Without a just organizational climate, organizations are less likely to reap the benefits of personal initiative.

Research Limitations and Future Directions

This study has several limitations that should be noted. We collected data from two sources in order to mitigate the potential for common method variance. The measurement of organizational citizenship was separated from the measurement of work perceptions. However, method variance may still inflate the relationships among proactive personality, LMX, and job satisfaction. Future research should address this limitation. A related concern comes from our data's cross-sectional nature, which limits our ability to make causal inferences. It is plausible to argue that proactive personality can directly encourage OCBs, which then strengthen LMX. In future research, longitudinal research designs should be employed to rigorously examine the relationships.

These data failed to demonstrate a bivariate relationship between employees' proactive personality and OCBs. One potential explanation is that OCB in general and the forms of OCB studied here have been classified as affiliative and promotive, in that they focus on reinforcing the status quo more than changing the situation (Van Dyne, Cummings, & McLean Parks, 1995). Proactive personality may be more strongly associated with specific change-oriented extrarole behaviors, such as whistle-blowing and principled organizational dissent, and future research may investigate these relationships. Another potential explanation stems from the Chinese context, where there may be stronger expectations that all employees exhibit OCBs and where the situation inhibits the impact of personality on behavior (Mischel, 1977).²

Another limitation stems from our measure of procedural justice climate, which was developed for Chinese respondents and asked them to consider facets of the fairness of pay and performance appraisal; future research might broaden the set of considered outcomes. Finally, we must not overlook the constraints of our study context (Johns, 2001). Given the important role of relationships in China, the involvement of Chinese respondents may have affected our findings (Farh, Tsui, Xin, & Cheng, 1998). Comparative studies across different cultural and international contexts are needed if we are to truly understand the underlying mechanisms and boundary conditions of proactive personality.

² We thank an anonymous reviewer for suggesting these potential explanations.

References

- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical consideration. *Journal of Personality and Social Psychology, 51*, 1173–1182.
- Bateman, T. S., & Crant, J. M. (1993). The proactive component of organizational behavior: A measure and correlates. *Journal of Organizational Behavior, 14*, 103–118.
- Bauer, D. J., & Curran, P. J. (2005). Probing interactions in fixed and multilevel regressions: Inferential and graphical techniques. *Multivariate Behavioral Research, 40*, 373–400.
- Bauer, T. N., & Green, S. G. (1996). Development of leader–member exchange: A longitudinal test. *Academy of Management Journal, 39*, 1538–1567.
- Blau, P. M. (1964). *Exchange and power in social life*: New York, NY: Wiley.
- Bradbury, H., & Lichtenstein, B. M. B. (2000). Relationality in organizational research: Exploring the “space between.” *Organization Science, 11*, 551–564.
- Brislin, R. W. (1986). The wording and translation of research instruments. In W. Lonner & J. Berry (Eds.), *Field methods in cross-cultural research* (pp. 137–164). Beverly Hills, CA: Sage.
- Brown, D. J., Cober, R. T., Kane, K., Levy, P. E., & Shalhoop, J. (2006). Proactive personality and the successful job search: A field investigation with college graduates. *Journal of Applied Psychology, 91*, 717–726.
- Campbell, D. J. (2000). The proactive employee: Managing workplace initiative. *Academy of Management Executive, 14*, 52–66.
- Chen, S., Boucher, H. C., & Tapias, M. P. (2006). The relational self revealed: Integrative conceptualization and implications for interpersonal life. *Psychological Bulletin, 132*, 151–179.
- Claes, R., Beheydt, C., & Lemmens, B. (2005). Unidimensionality of abbreviated proactive personality scales across cultures. *Applied Psychology: An International Review, 54*, 476–489.
- Colquitt, J. A. (2001). On the dimensionality of organizational justice: A construct validation of a measure. *Journal of Applied Psychology, 86*, 386–400.
- Colquitt, J. A., Scott, B. A., Judge, T. A., & Shaw, J. C. (2006). Justice and personality: Using integrative theories to derive moderators of justice effects. *Organizational Behavior and Human Decision Processes, 100*, 110–127.
- Crant, J. M. (2000). Proactive behavior in organizations. *Journal of Management, 26*, 435–462.
- Cropanzano, R., Byrne, Z. S., Bobocel, D. R., & Rupp, D. E. (2001). Moral virtues, fairness heuristics, social entities, and other denizens of organizational justice. *Journal of Vocational Behavior, 58*, 164–209.
- Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management, 31*, 874–900.
- Edwards, J. R., & Lambert, L. S. (2007). Methods for integrating moderation and mediation: A general analytical framework using moderated path analysis. *Psychological Methods, 12*, 1–22.
- Erdogan, B., & Bauer, T. N. (2005). Enhancing career benefits of employee proactive personality: The role of fit with jobs and organizations. *Personnel Psychology, 58*, 859–891.
- Farh, J. L., Earley, P. C., & Lin, S. C. (1997). Impetus for action: A cultural analysis of justice and organizational citizenship behavior in Chinese society. *Administrative Science Quarterly, 42*, 421–444.
- Farh, J. L., Tsui, A. S., Xin, K., & Cheng, B. S. (1998). The influence of relational demography and *guanxi*: The Chinese case. *Organization Science, 9*, 471–488.
- Folger, R., Cropanzano, R., & Goldman, B. (2005). Justice, accountability, and moral sentiment: The deontic response to “foul play” at work. In J. Greenberg & J. Colquitt (Eds.), *Handbook of organizational justice* (pp. 215–245). Mahwah, NJ: Erlbaum.
- Frese, M., & Fay, D. (2001). Personal initiative: An active performance

- concept for work in the 21st century. In L. L. Cummings & B. M. Staw (Eds.), *Research in organizational behavior* (Vol. 23, pp. 133–187). Greenwich, CT: JAI.
- Frese, M., Kring, W., Soose, A., & Zempel, J. (1996). Personal initiative at work: Differences between east and west Germany. *Academy of Management Journal*, 39, 37–63.
- Fuller, J. B., & Marler, L. E. (2008, August). *Change-driven by nature: A meta-analytic review of the proactive personality literature*. Paper presented at the meeting of the Academy of Management, Anaheim, CA.
- Fuller, J. B., Marler, L. E., & Hester, K. (2006). Promoting felt responsibility for constructive change and proactive behavior: Exploring aspects of an elaborated model of work design. *Journal of Organizational Behavior*, 27, 1089–1120.
- Gerstner, C. R., & Day, D. V. (1997). Meta-analytic review of leader-member exchange theory: Correlates and construct issues. *Journal of Applied Psychology*, 82, 827–844.
- Graen, G. B., & Scandura, T. A. (1987). Toward a psychology of dyadic organizing. In L. L. Cummings & B. M. Staw (Eds.), *Research in organizational behavior* (Vol. 9, pp. 175–208). Greenwich, CT: JAI.
- Graen, G. B., & Uhl-Bien, M. (1995). Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective. *Leadership Quarterly*, 62, 219–247.
- Grant, A. M., & Ashford, S. J. (2008). The dynamics of proactivity at work. In L. L. Cummings & B. M. Staw (Eds.), *Research in organizational behavior* (Vol. 28, pp. 3–34). Greenwich, CT: JAI.
- Grant, A. M., Parker, S., & Collins, C. (2009). Getting credit for proactive behavior: Supervisor reactions depend on what you value and how you feel. *Personnel Psychology*, 62, 31–55.
- Hackett, R. D., Farh, J.-L., Song, L. J., & Lapierre, L. M. (2003). LMX and organizational citizenship behavior: Examining the links within and across Western and Chinese samples. In G. Graen (Ed.), *Dealing with diversity* (pp. 219–263). Greenwich, CT: Information Age.
- Hackman, J. R., & Oldham, G. R. (1980). *Work redesign*. Reading, MA: Addison-Wesley.
- Ilies, R., & Judge, T. A. (2003). On the heritability of job satisfaction: The mediating role of personality. *Journal of Applied Psychology*, 88, 750–759.
- James, L. R., Mulaik, S. A., & Brett, J. M. (2006). A tale of two methods. *Organizational Research Methods*, 9, 233–244.
- Janssen, O., & Van Yperen, N. W. (2004). Employees' goal orientations, the quality of leader-member exchange, and the outcomes of job performance and job satisfaction. *Academy of Management Journal*, 47, 368–384.
- Johns, G. (2001). In praise of context. *Journal of Organizational Behavior*, 22, 31–42.
- Katz, D., & Kahn, R. L. (1966). *The social psychology of organizations*. New York, NY: Wiley.
- Lam, W., Huang, X., & Snape, E. (2007). Feedback-seeking behavior and leader-member exchange: Do supervisor-attributed motives matter? *Academy of Management Journal*, 50, 348–363.
- Liden, R. C., & Maslyn, J. M. (1998). Multi-dimensionality of leader-member exchange: An empirical assessment through scale development. *Journal of Management*, 24, 43–72.
- Liden, R. C., Wayne, S. J., & Stilwell, D. (1993). A longitudinal study on the early development of leader-member exchanges. *Journal of Applied Psychology*, 78, 662–674.
- Lind, E. A., & Earley, P. C. (1992). Procedural justice and culture. *International Journal of Psychology*, 27, 227–242.
- Liu, S. (2003). Culture within culture: Unity and diversity of two generations of employees in state-owned enterprises. *Human Relations*, 56, 387–417.
- Locke, E. (1976). The nature and causes of job satisfaction. In M. D. Dunnette (Ed.), *Handbook of industrial and organizational psychology* (pp. 1297–1349). Chicago, IL: Rand McNally.
- Mischel, W. (1977). The interaction of person and situation. In D. Magnusson & N. S. Endler (Eds.), *Personality at the crossroads: Current issues in interactional psychology* (pp. 333–352). Hillsdale, NJ: Erlbaum.
- Naumann, S. E., & Bennett, N. (2000). A case for procedural justice climate: Development and test of a multilevel model. *Academy of Management Journal*, 43, 881–889.
- Ng, T. W. H., Eby, L. T., Sorensen, K. L., & Feldman, D. C. (2005). Predictors of objective and subjective career success: A meta-analysis. *Personnel Psychology*, 58, 367–408.
- Organ, D. W. (1988). *Organizational citizenship behavior: The good soldier syndrome*. Lexington, MA: Lexington Books.
- Parker, S. K. (1998). Enhancing role breadth self-efficacy: The roles of job enrichment and other organizational interventions. *Journal of Applied Psychology*, 83, 835–852.
- Parker, S. K., & Collins, C. (in press). Taking stock: Integrating and differentiating multiple proactive behaviors. *Journal of Management*.
- Parker, S. K., Williams, H. M., & Turner, N. (2006). Modeling the antecedents of proactive behavior at work. *Journal of Applied Psychology*, 91, 636–652.
- Phillips, A. S., & Bedeian, A. G. (1994). Leader-follower exchange quality: The role of personal and interpersonal attributes. *Academy of Management Journal*, 37, 990–1001.
- Podsakoff, N. P., Whiting, S. W., Podsakoff, P. M., & Blume, B. D. (2009). Individual- and organizational-level consequences of organizational citizenship behaviors: A meta-analysis. *Journal of Applied Psychology*, 94, 122–141.
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers*, 36, 717–731.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavioral Research Methods*, 40, 879–891.
- Rupp, D. E., Bashshur, M. R., & Liao, H. (2007). Justice climate: Consideration of the source, target, specificity, and emergence. In F. Danse-reaux & F. J. Yammarino (Eds.), *Research in multi-level issues* (Vol. 6, pp. 439–459). Oxford, England: Elsevier.
- Schneider, B., & Reichers, A. E. (1983). On the etiology of climates. *Personnel Psychology*, 36, 19–39.
- Seibert, S. E., Kraimer, M. L., & Crant, J. M. (2001). What do proactive people do? A longitudinal model linking proactive personality and career success. *Personnel Psychology*, 54, 845–974.
- Staw, B. M., Bell, N. E., & Clausen, J. A. (1986). The dispositional approach to job attitudes: A lifetime longitudinal test. *Administrative Science Quarterly*, 31, 56–77.
- Staw, B. M., & Cohen-Charash, Y. (2005). The dispositional approach to job attitudes: More than a mirage, but not yet an oasis. *Journal of Organizational Behavior*, 26, 59–78.
- Tett, R. P., & Burnett, D. D. (2003). A personality trait-based interactionist model of job performance. *Journal of Applied Psychology*, 88, 500–517.
- Tett, R. P., & Guterman, H. A. (2000). Situation trait relevance, trait expression, and cross-situational consistency: Testing a principle of trait activation. *Journal of Research in Personality*, 34, 397–423.
- Thompson, J. A. (2005). Proactive personality and job performance: A social capital perspective. *Journal of Applied Psychology*, 90, 1011–1017.
- Tyler, T. R., & Lind, E. A. (1992). A relational model of authority in groups. *Advances in Experimental Social Psychology*, 25, 115–191.
- Van Dyne, L., Cummings, L. L., & McLean Parks, J. (1995). Extra-role behaviors: In pursuit of construct and definitional clarity. In L. L. Cummings & B. M. Staw (Eds.), *Research in organizational behavior* (Vol. 17, pp. 215–285). Greenwich, CT: JAI Press.

- Van Dyne, L., Kossek, E., & Lobel, S. (2007). Less need to be there: Cross-level effects of work practices that support work-life flexibility and enhance group processes and group-level OCB. *Human Relations, 60*, 1123–1154.
- Weick, K. E. (1979). *The social psychology of organizing*. Reading, MA: Addison-Wesley.
- Williams, L., & Anderson, S. (1991). Job satisfaction and organizational commitment as predictors of organizational citizenship and in-role behaviors. *Journal of Management, 17*, 601–617.
- Yang, J., Mossholder, K. W., & Peng, T. K. (2007). Procedural justice climate and group power distance: An examination of cross-level interaction effects. *Journal of Applied Psychology, 92*, 681–692.

Received November 11, 2008

Revision received September 16, 2009

Accepted September 29, 2009 ■

Correction to Ilies et al. (2009)

In the article “Personality and Citizenship Behavior: The Mediating Role of Job Satisfaction,” by Remus Ilies, Ingrid Smithey Fulmer, Matthias Spitzmuller, and Michael D. Johnson (*Journal of Applied Psychology, 95*, 945–959), the path coefficients presented in the figures are slight overestimates. For example, in Figure 1 (p. 952), the paths from Agreeableness and Conscientiousness to Job Satisfaction should be .11 and .23 instead of .12 and .28, the direct effects from Agreeableness and Conscientiousness to Citizenship Behavior should be .10 and .16 instead of .11 and .18, and the paths from Job Satisfaction to Citizenship Behavior should be .28 (.22) instead of .34 (.26). The statistical significance of the path coefficients is correct, and so are the substantive conclusions based on the better fit of the partially mediated models relative to the fully mediated models. Also, the meta-analytic estimates presented in Table 1 (p. 949), Table 2 (p. 950), and Table 3 (p. 951) are correct.

DOI: 10.1037/a0018757