## WHEN DO SUPERVISORS SUPPORT FOLLOWERS? ROLE OF PERCEIVED FOLLOWER SUPPORT

A Dissertation Presented to The Faculty of the Department of Psychology University of Houston In Partial Fulfillment Of the Requirements for the Degree of Doctor of Philosophy By Hao Wu

December, 2013

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#### **ABSTRACT**

Prior research found that supervisors' perception that their subordinates value their contributions and care about their well-being (perceived follower support, or PFS) was positively related to subordinates' belief that they were well treated by their supervisors (supportive supervision). The present research examined supervisor's dispositional variables and work context as moderators of this relationship. Since this relationship might involve social exchange between supervisors and followers, I studied six supervisors' dispositional variables as moderators that were related to supervisors' exchange beliefs and socioemotional needs such as the need for emotional support. Moreover, because stress should deplete supervisors' time and energy and limit their abilities to display supportive supervision, I studied the influence of stressors on the relationship between PFS and supportive supervision. I collected data from 3 organizations in China (one automobile company, one manufacturing company, and one restaurant) which included 689 employees, 134 supervisors, and 55 managers. I found supervisors' creditor ideology and supervisors' need for emotional support strengthened the relationship between PFS and supportive supervision; this, in turn, increased manager-rated team performance. The findings of this study suggest that some supervisors are more susceptible to employees' upward influence than others depending on supervisors' characteristics such as creditor ideology and need for emotional support. These findings have practical implications in maximizing the effects of PFS and employees' upward influences.

*Keywords*: perceived follower support, supportive supervision, team performance

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When do Supervisors Support Followers? Role of Perceived Follower Support Leadership research has tended to focus on top-down influence, giving little consideration to subordinates' influences on leaders. One exception is the leader-member exchange (LMX) theory, which emphasizes the mutual exchange relationship between leaders and followers. According to this theory, leaders tend to differentiate employees and treat a select few more favorably than the others (Dulebohn, Bommer, Liden, Brouer, & Ferris, 2012; Gerstner & Day, 1997; Ilies, Nahrgang, & Morgeson, 2007; Liden, Sparrowe, & Wayne, 1997; Schriesheim, Castro, & Cogliser, 1999). Subordinates may influence their selection for high-quality exchange relationships through such means as impression management tactics and high performance (Dulebohn et al., 2012). However, such influence involves individual supervisor-follower relationships. The *collective influence* of a group of followers on their leaders is beyond LMX theory's domain (Howell & Shamir, 2005). Organizational support theory (Baran, Shanock, & Miller, 2012; Eisenberger, Armeli, Rexwinkel, Lynch, & Rhoades, 2001; Eisenberger, Cummings, Armeli, & Lynch, 1997; Eisenberger, Huntington, Hutchison, & Sowa, 1986; Rhoades & Eisenberger, 2002) provides a promising approach to address this gap.

Organizational support theory states that in order to meet socio-emotional needs and determine an organization's readiness to reward increased performance, employees are motivated to form perceived organizational support (POS), referring to a general perception of the extent to which the organization cares about them and values their contribution.

Organizational support theory has been extended to supervisors' treatment of subordinates.

When the organization treats supervisors well, in order to help the organization achieve its objectives, the supervisors are more likely to treat their subordinates more favorably; this, in

turn, increase subordinates' performance (Shanock & Eisenberger, 2006). Such processes suggest a trickle-down effect where high-level managers influence mid-level supervisors, and mid-level supervisors, in turn, influence bottom-level employees.

Besides the trickle-down effect, there may be bottom-up influences, where subordinates influence supervisors' attitudes and behaviors. LMX theory, for example, maintains that employees can influence supervisors' attitudes and behaviors by demonstrating impression management tactics and high performance (Dulebohn et al., 2012; Liden et al., 1993). According to LMX theory, when particular employees demonstrate favorable impression management tactics and high work productivity, the supervisors tend to believe that they are potential high performers. Supervisors are, therefore, more likely to establish a high-quality relationship with such employees. However, LMX theory does not address how supervisors' perceptions of employees' contributions as a group contribute to their relationships with subordinates. By extending organizational support theory, we believe leadership theory may better take into account supervisors'—and, more generally, leaders' perceptions of upward support by followers (Eisenberger, Wang, Mesdaghinia, Wu & Wickham, 2012). This new perspective rests on the notion that the supervisor's perception of the extent to which subordinates value their contributions and care about their well-being (perceived follower support, or PFS) can (a) increase supervisors' confidence to set higher goals, (b) satisfy supervisors' socio-emotional needs, and (c) increase supervisors' expectancy that efforts on behalf of the workgroup will be rewarded.

Like POS, PFS serves as a resource that involves expectations of future aid as well as fulfillment of socio-emotional needs. However, PFS differs from POS in terms of the directionality of support; PFS involves upward support from subordinates, rather than

downward support from the organization (Eisenberger et al., 2012). Eisenberger et al. (2012) studied the joint effects of PFS and POS on supportive supervision. Supportive supervision refers to the extent to which leaders have a high regard for the comfort, well-being, and contributions of followers (Stogdill, 1963). The results suggested that when supervisors' own POS was low, as opposed to high, PFS was positively associated with supportive supervision. The increased supportive supervision was in turn positively related to workgroup performance and job satisfaction. Moreover, deep-level similarities between supervisors and subordinates (i.e., similarities in work values and general outlook), as perceived by subordinates, were positively related to PFS. These results suggest that PFS compensates for a low level of POS to increase supportive supervision.

Research on PFS is important because it suggests that bottom-up influence by subordinates may shape supervisors' perceptions of those subordinates; this, in turn, influences supervisors' supportive behaviors directed toward subordinates. However, potential moderators of the relationship between PFS and supportive supervision have not been thoroughly investigated. Therefore, I examine a number of factors that may moderate this relationship. Supervisors' responsiveness to PFS may be related to such dispositions as the acceptance of the reciprocity norm and the need for emotional support. Additionally, workplace stressors may also play a role in moderating the relationship between PFS and supportive supervision. Notably, workplace stressors may limit the supervisors' ability to reciprocate subordinates' favorable treatment by depleting supervisors' time and energy. Accordingly, I examine the possible detrimental influence of workplace stressors on the relationship between PFS and supportive supervision.

My study aims to provide a greater understanding of how subordinates influence the treatment they receive from supervisors, including the moderating influences of supervisors' dispositional variables and experienced stressors. In the following section, I will discuss organizational support theory and PFS, followed by the hypothesized relationship between PFS and supportive supervision. Then, I will discuss the proposed moderators. Next, I will discuss team performance as the final outcome. After that, I will present the study methodology. After considering the results, I will examine the theoretical and practical implications of the findings.

### **Theoretical Background and Hypotheses**

## **Organizational Support Theory and Perceived Follower Support**

Organizational support theory (Eisenberger et al., 1986) assumes that employees personify their organization, ascribing to it various human characteristics. Levinson (1965) noted that employees tend to perceive the organization as a living entity. This tendency is abetted by the fact that the organization (a) holds legal, moral, and financial responsibilities for its agents' actions; (b) prescribes role behaviors via organizational precedents, traditions, policies, and norms; and (c) exerts influence over employees through its agents. According to organizational support theory (Eisenberger et al., 1986), organizational members form POS in order to (a) meet socio-emotional needs (e.g., approval, esteem, achievement, and emotional support) and (b) determine the value of investing greater efforts on the organization's behalf. Based on the reciprocity norm, POS creates an obligation to employees to help the organization reach its objectives (Eisenberger, Stinglhamber, Vandenberghe, Sucharski, & Rhoades, 2002; Lynch, Eisenberger, & Armeli, 1999; Randall, Cropanzano, Bormann, & Birjulin, 1999).

Similarly to POS, PFS can also fulfill supervisors' socio-emotional needs (Eisenberger et al., 2012). Specifically, PFS indicates that followers are ready to exert greater effort and dedication to help supervisors, which fulfills supervisors' need for emotional support. Further, a high level of PFS indicates that employees trust supervisors' abilities, thereby satisfying supervisors' need for esteem. Additionally, a high level of PFS would be valued by supervisors for indicating that they can count on the support of followers in pursuing ambitious objectives.

Considering the antecedents of PFS, subordinates' deep-level similarity with supervisors should lead them to act in supportive ways that promote PFS (Eisenberger et al., 2012). When employees believe they share both values and a general outlook with supervisors, they are more likely to trust their supervisors, commit to their goals, and support their decisions (Guillaume, Brodbeck, & Riketta, 2012; Kacmar, Harris, Carlson, & Zivnuska, 2009). Indeed, supporting evidence has shown that employee-supervisor deep-level similarity is a significant predictor of PFS (Eisenberger et al., 2012).

## Supervisor's Dispositional Variables as Moderators

The relationship between PFS and supportive supervision may be moderated by supervisors' dispositional variables, such as their endorsement of social exchange ideology and their need for emotional support. According to Eisenberger et al. (2012), the relationship between PFS and supportive supervision is based on the norm of reciprocity, which obligates the supervisors to treat followers more supportively when PFS is high. However, individuals respond to the norm of reciprocity in different ways that may moderate the relationship between PFS and supportive supervision. Moreover, the value of subordinates' support to supervisors may depend on the strength of supervisors' socio-emotional needs. Therefore,

based on organizational support theory (Eisenberger et al., 1986), I chose to study six supervisor dispositional variables that were related to the endorsement of norm of reciprocity and need for emotional support.

Exchange Ideology. Exchange ideology refers to the endorsement of the reciprocity norm, as applied by organization members to their relationship with the organization (Coyle-Shapiro, & Neuman, 2004; Eisenberger, Armeli, Rexwinkel, Lynch, & Rhoades, 2001; Pazy, & Ganzach, 2010; Witt & Broach, 1993), which includes supervisors' relationships with their subordinates. Supervisors with a high exchange ideology should carefully track obligations and be prepared to repay the favorable treatment bestowed by the other party, whereas those with low exchange ideology are likely to be less concerned about obligations, and are less likely to care whether the exchanges are reciprocated (Cropanzano & Mitchell, 2005). Many researchers have found employees with a high exchange ideology give more in return for favorable treatment (Andrews, Witt, & Kacmar, 2003; Eisenberger et al., 1986; Eisenberger et al., 2001; Witt, 1991, 1992; Witt & Broach, 1993; Witt, Kacmar, & Andrews, 2001). For example, when strongly supported by the organization, employees with a high exchange ideology are more likely to repay the organization by decreasing absenteeism than those with low exchange ideology (Eisenberger et al., 1986). The moderating effects of exchange ideology are associated with other outcomes, such as employees' felt obligations and fulfillment of obligations (Coyle-Shapiro, & Neuman, 2004; Eisenberger et al., 2001), military service commitment and perseverance (Pazy & Ganzach, 2010), organizational affective commitment, organizational spontaneity, in-role performance, withdrawal behaviors (Eisenberger et al., 2001), and organizational citizenship behaviors (Witt, 1991).

It has been suggested that a strong exchange ideology results from a personal history of direct experience, observation, and persuasion by others, emphasizing the value of reciprocity in the employee-employer relationship (Meierhans, Rietmann, & Jonas, 2008). Based on prior literature, I suggest that a given supervisor's exchange ideology should strengthen the relationship between PFS and supportive supervision, because supervisors with a strong exchange ideology would feel more obligated to repay subordinates with supportive supervision.

Hypothesis 1: A supervisor's exchange ideology moderates the relationship between that supervisor's perceived follower support and supportive supervision. As the supervisor's exchange ideology increases, the relationship between the supervisor's perceived follower support and supportive supervision is strengthened.

Negative Reciprocity Norm. Just as there is a positive reciprocity norm, there is a negative reciprocity norm, which involves people's beliefs concerning the appropriateness of retaliating when they receive unfavorable treatment (Eisenberger, Lynch, Aselage, & Rohdieck, 2004). The negative reciprocity norm serves the functions of preventing mistreatment and justifying vengeance. The negative reciprocity norm is distinct from the positive reciprocity norm, with the two constructs sharing only about 1% of common variance (Eisenberger et al., 2004). This result suggests that the degree to which individuals feel they should return mistreatment has little to do with the extent to which they should return positive treatment. Employees with a high level of negative reciprocity norm tend to retaliate against the organization when they receive unfavorable treatment from the organization. This tendency is in part abetted by individuals' beliefs that retaliation is the

correct and appropriate way to respond to unfavorable treatment. Additionally, it is influenced by past rewards or punishments for engaging in retaliatory behaviors. In the workplace, revenge behaviors against the organization may involve withholding work effort, increasing absenteeism, and conducting unethical behaviors such as theft or purposeful equipment damage (Robinson & Bennett, 1997). Mitchell and Ambrose (2007) found that when the supervisor was abusive to employees, those employees who strongly endorsed a negative reciprocity norm showed reduced work productivity or reduced work quality compared to those who endorsed the norm to a lesser degree. Therefore, I propose that the negative reciprocity norm moderates the relationship between PFS and supportive supervision. A low level of PFS indicates subordinates, as a group, care less about the supervisor's contribution and well-being. This perception may be interpreted as an offense and betrayal. Therefore, supervisors who adopt negative reciprocity norm would be more likely to punish followers and decrease supportive supervision. Hence, I hypothesized that the negative reciprocity norm moderates the relationship between PFS and supportive supervision.

Hypothesis 2: A supervisor's negative reciprocity norm moderates the relationship between the supervisor's perceived follower support and supportive supervision. As the supervisor's negative reciprocity norm increases, the relationship between perceived follower support and supportive supervision increases.

Creditor Ideology. Besides exchange ideology and a negative reciprocity norm, a third exchange ideology involves creditor ideology. This refers to people's beliefs about investing in others for future returns (Eisenberger, Cotterell, & Marvel, 1987). Eisenberger et

al. noticed some individuals are inclined to make others indebted to them by giving more than they receive. In this way, these individuals can ask for more benefits in the future. To test their predictions, Eisenberger et al. simulated a bargaining situation and found college students who endorsed a creditor ideology tended to invest more with two types of partners: a partner who had high resources but acted stingily, and a partner who had low resources but acted generously. According to Eisenberger et al., high creditors believe these two types of partners are most likely to return the investment with high benefits in the future. In the working context, a high level of PFS indicates that followers are likely to be cooperative in the future. As a result, as PFS increases, the supervisors are more likely to believe the subordinate workgroup can be counted on to support supervisors in the future. Consequently, supervisors with a high creditor ideology would invest more in the subordinates in developing a strong relationship with the workgroup.

Hypothesis 3: A supervisor's creditor ideology moderates the relationship between that supervisor's perceived follower support and supportive supervision. As the supervisor's creditor ideology increases, the relationship between that supervisor's perceived follower support and supportive supervision is strengthened.

Reciprocation Wariness. Reciprocation wariness refers to individuals' generalized caution in reciprocating aid because of a fear of being exploited in interpersonal relationships (Lynch et al., 1999). According to Eisenberger et al. (1987), wary employees are hesitant to provide aid, return aid, or contribute to the social relationship until they are convinced that the other party may be trusted to reciprocate. Such hesitation often stems from a general concern or mistrust about the partners' genuine intentions for building relationships. Wary

individuals tend to believe that others are motivated to pretend to be interested in them so as to take advantage of them in the future (Eisenberger et al., 1987; Rempel, Holmes, & Zanna, 1985). In work settings, wary employees tend to interpret favorable treatment as a mask for demanding continuous hard work from the employees (Eisenberger et al., 1987). Evidence has shown reciprocation wariness influenced the exchange of resources in interpersonal relationships, because of mistrust about whether the other party would reciprocate favorable treatment (Eisenberger et al., 1987). For example, using a prisoner's dilemma game, Eisenberger et al. found students who are high in wariness returned less aid following beneficial treatment by their partner and viewed their benefactors less favorably than those low in wariness. Additionally, Lynch et al. (1999) found reciprocation wariness to be negatively related to performance when POS was low. When POS was high, reciprocation wariness was not related to, or was positively related to, performance.

Much like lower-level employees, supervisors can be wary about the reciprocation of others, including followers. According to organizational support theory (Eisenberger et al., 2012), the relationship between PFS and supportive supervision depends on the extent to which the supervisor is willing to reciprocate the followers' positive treatment. When supervisors are suspicious about followers' intentions to live up to their obligations, the supervisors tend to be hesitant in reciprocating followers' positive behavior with supportive supervision. Supervisors' reciprocation wariness should therefore weaken the relationship between PFS and supportive supervision.

Hypothesis 4: A supervisor's reciprocation wariness moderates the relationship between that supervisor's perceived follower support and supportive supervision. As the supervisor's wariness increases, the

relationship between that supervisor's perceived follower support and supportive supervision is weakened.

Need for Emotional Support. Need for emotional support refers to a desire for consolation and sympathy when experiencing distress (Hill, 1987). According to organizational support theory, POS can fulfill employees' need for emotional support by strengthening employees' expectations that the organization would provide sympathetic understanding and tangible or intangible resources to deal with work stressors. Using police patrol officers as participants, Armeli, Eisenberger, Fasolo, and Lynch (1998) provided evidence that POS contributes to police officers' arrests of drunk driving and speeding citations, and such effects were increased with officers' need for emotional support.

Supervisors with a high level of need for emotional support should be more susceptible to PFS because they find this resource more rewarding.

Hypothesis 5: A supervisor's need for emotional support moderates the relationship between that supervisor's perceived follower support and supportive supervision. As the supervisor's need for emotional support increases, the relationship between that supervisor's perceived follower support and supportive supervision is strengthened.

Supervisor's Narcissism. Narcissism is a construct widely studied in clinical psychology. Clinical psychologists conceptualize narcissism as a personality disorder involving "grandiosity, a lack of empathy, and a desire for admiration" (Levy, 2012). In the non-clinical psychology literature, narcissism is conceptualized as a personality trait involving "self-centered perspective, feelings of superiority, and a drive for personal power and glory" (Galvin, Waldman, & Balthazard, 2010). In the present study, I adopted the non-

clinical conceptualization. In a review of narcissism-related literature, Campbell, Hoffman, Campbell, and Marchisio (2011) suggested that narcissistic individuals considered themselves more important than others, sought others' attention, and had low levels of empathy. When they achieved success, narcissistic individuals tended to take credit from others and saw themselves in heroic terms (Campbell et al., 2011). When they encountered failure, they tended to avoid the problem, withdrew from the situation, and blamed others (Campbell et al., 2011). A supervisor's narcissism should negatively influence the relationship between PFS and supportive supervision for the following three reasons: First, when followers treat supervisors favorably, narcissistic leaders may take followers' efforts and loyalties for granted and think that they deserve the followers' positive treatment. Narcissistic leaders would therefore be less likely to reciprocate their followers' favorable treatment with supportive supervision. Second, narcissistic supervisors have a strong selfcentered motive for power and success that makes them more interested in their own benefits, decreases interest in other people's well-being. Therefore, when narcissistic supervisors receive positive treatment from followers, they are less likely to reciprocate through supportive supervision. Third, narcissistic supervisors often consider themselves as extremely intelligent, unique, and superior to other people, thus downplaying the contributions of others.

Hypothesis 6: A supervisor's narcissism moderates the relationship between that supervisor's perceived follower support and supportive supervision. As the supervisor's narcissism increases, the relationship between that supervisor's perceived follower support and supportive supervision is weakened.

#### **Work Context Stressors as Moderators**

Besides supervisors' dispositional variables, work context stressors may also influence the relationship between PFS and supportive supervision. Stressful situations should deplete supervisors' time and energy and limit their abilities to display supportive supervision. Within the framework of organizational support theory (Eisenberger et al., 1986), I chose to study challenge stressors (involving high workload, amount and scope of responsibility, and time pressure) and hindrance stressors (involving organizational politics, role ambiguity, and job insecurity) as potential moderators.

Cavanaugh, Boswell, Roehling, and Boudreau (2000) categorized work stressors as challenge stressors and hindrance stressors. Challenge stressors refer to positive stressors involving rewards, career advancement, and personal improvement. Examples of challenge stressors include the number of projects, as well as the amount and scope of responsibility. Hindrance stressors refer to work barriers that are harmful and threatening to employees' work performance and well-being. Examples of hindrance stressors are organizational politics, role ambiguity, and red tape. The appraisal model of stress (Folkman, Lazarus, Dunkel-Schetter, Delongis, & Gruen, 1986) maintains that in the face of a stressor, individuals will first appraise whether the stressor is a challenge stressor or a hindrance stressor. After this assessment, individuals will engage in coping behaviors to deal with the stressor (Folkman et al., 1986). Coping behaviors include problem-focused coping behaviors, such as analyzing the problem, planning what to do, and implementing the plan. Alternatively, employees may also engage in emotion-focused coping strategies, such as denying the seriousness of the problem, using relaxation techniques to reduce anxiety, or using alcohol or other substances to manage their feelings. LePine, Podsakoff, and LePine

(2005) suggested that challenge stressors that provide opportunities for personal gains should motivate people to use problem-focused coping strategies to deal with the stressors. Conversely, hindrance stressors that pose potential harm and threaten employees' careers motivate people to use more passive, emotion-focused coping strategies, such as withdrawal behaviors. Such passive coping strategies may be effective in regulating people's emotions, but have limited effectiveness in solving problems. In the long run, hindrance stressors would be more detrimental to employees' well-being than challenge stressors. Results of a metaanalytic study found that challenge stressors are positively associated with employees' motivation and performance, and hindrance stressors are negatively related to employees' motivation and performance (LePine et al., 2005). Another meta-analytic study (Podsakoff, LePine, & LePine, 2007) found that challenge stressors are positively related to job satisfaction and organizational commitment, which in turn were related to reduced withdrawal behaviors and turnover. In contrast, hindrance stressors were associated with reduced job satisfaction, organizational commitment, and increased withdrawal and turnover behaviors.

I suggest that challenge stressors and hindrance stressors should moderate the relationship between PFS and supportive supervision. The opportunities provided by challenge stressors can best be achieved by obtaining subordinates' help. Thus, when there is a high level of challenge stress, supervisors should be more likely respond positively to PFS. In other words, challenge stress should strengthen the relationship between PFS and supportive supervision. Conversely, hindrance stressors, often perceived as barriers and threats, should substantially deplete supervisors' metal and physical resources. To cope with hindrance stressors, supervisors tend to adopt passive strategies such as ignoring the stressor

and withdrawing from the stressful situation. As a result, hindrance stressors tend to exist in the workplace for a long time and produce continuous, long-lasting effects in draining supervisors' energy. As the relationship between PFS and supportive supervision is influenced by supervisors' abilities to reciprocate followers' positive treatment, hindrance stressors should weaken the relationship between PFS and supportive supervision by draining supervisors' resources.

Hypothesis 7: Challenge stressors moderate the relationship between a supervisor's perceived follower support and supportive supervision. As challenge stressors increase, the relationship between a supervisor's perceived follower support and supportive supervision is strengthened.

Hypothesis 8: Hindrance stressors moderate the relationship between a supervisor's perceived follower support and supportive supervision. As hindrance stressors increase, the relationship between a supervisor's perceived follower support and supportive supervision is weakened.

#### **Team Performance**

Supportive supervision, resulting from the interactive effects of supervisors' dispositional variables, work stressors, and PFS, should increase team performance.

Organizational support theory proposes two reasons for the positive relationship between supportive supervision and team performance. First, supportive supervision is a people-oriented leadership behavior. It should fulfill employees' socio-emotional needs by expressing concerns for followers' well-being, by showing empathy, respect, and building trusting and open relationships with the followers. When employees' socio-emotional needs are fulfilled, they tend to cooperate more in directing performance toward group goals, and

accomplish more as a group. Second, supportive supervision increases employees' expectation that the organization will provide them with the resources required to cope with work demands in the future. The expectation of receiving help when necessary should increase team performance. Indeed, a recent meta-analytic study has shown that supportive supervision is positively related to group performance (Derue, Nahrgang, Wellman, & Humphrey, 2011). The leader's supportive supervision resulting from PFS should therefore facilitate the team's performance.

Given that supervisors' dispositional variables and work stressors moderate the relationship between PFS and supportive supervision, and considering that supportive supervision is related to team performance, I predicted mediated moderation effects to emerge where the moderating effects of supervisor's dispositional variables and work stressors would extend to team performance through supportive supervision.

Supervisors' levels of exchange ideology, negative reciprocity norm, creditor ideology, need for emotional support, and experienced challenge stressors will motivate them to reciprocate subordinates' favorable treatment and increase supportive supervision, whereas their levels of reciprocation wariness, narcissism, and experienced hindrance stressors will reduce supervisors' reciprocation of subordinates' favorable treatment and produce a low level of supportive supervision. Therefore, supportive supervision—resulting from PFS—should lead to higher team performance, especially when supervisors' levels of exchange ideology, negative reciprocity norm, creditor ideology, need for emotional support, and experienced challenge stressors are high, and when supervisor's reciprocation wariness, narcissism, and experienced hindrance stressors are low.

Hypothesis 9: The conditional indirect effect of PFS on team performance, by way of supportive supervision, will be stronger when supervisors' levels of exchange ideology, negative reciprocity norm, creditor ideology, need for emotional support, and experienced challenge stressors are high.

Hypothesis 10: The conditional indirect effect of PFS on team performance, by way of supportive supervision, will be stronger when supervisor's reciprocation wariness, narcissism, and experienced hindrance stressors are low.

#### Method

## Sample and Procedure

With the assistance of MBA students in an organizational psychology class in China, I collected data from three organizations (one automobile company, one manufacturing company, and one restaurant company) located in southern China. The students were high-level managers in the organizations, and participated in the study in return for class credit. The data were collected from three sources: managers, supervisors, and subordinates. Data on team performance was collected from managers; data on PFS and all moderators were collected from supervisors; data on supportive supervision was collected from subordinates. The managers invited mid-level supervisors and their direct reports to participate the study. If these individuals agreed to participate, the managers administered the survey. The survey was contained in an envelope with participants' names on it. To keep responses confidential, participants' names were peeled off once they received their survey. Moreover, to increase participation rate, all participants received a small souvenir affixed with the university's name to thank them for their participation. Participants filled out the questionnaires in private

settings without managers' presence or supervision. Upon completion, participants inserted their questionnaires into a sealed envelope that was returned to the researchers by the managers.

To match employee responses to supervisor and manager responses, I asked managers to provide a list of names with a clear hierarchical structure, and assign codes to participants. From the codes, I could discern who was the supervisor and who the subordinate. For example, if a manager's ID was 1001, the mid-level supervisor reporting to him/her would be 100101, 100102 etc. (Notice that the first four digits are the same as the manager's ID). The subordinates that reported to the mid-level supervisors would be 10010101, 10010102 (Notice that the first six digits are the same as the mid-level supervisor's ID). Thus, I could link employees' data to their mid-level supervisors' data, as well as to their high-level managers' data.

The measures were translated from English to Chinese by a bilingual, native-born Chinese individual and back-translated to English by a second native-born bilingual Chinese speaker unfamiliar with the original version of the measures. Differences in the original and the back-translated versions were discussed and resolved by joint agreement of the translators.

Fifty-five managers were contacted, forty-five of whom (82%) agreed to participate in the study. A total of 134 supervisors out of 179 (75%) responded to the questionnaire. 689 out of 737 employees (93%) responded to the questionnaire. Among them, 46% came from the automobile company; 20% were from the manufacturing company; and 34% were from the restaurant company. Overall, supervisors reported an average age of 30 years (SD =

6.16), and had been employed by their organization for an average six years (SD = 4.71); 24% were women. On average, each supervisor had four subordinates.

#### Measures

All items, if not indicated otherwise, used a 6-point Likert-type scale ranging from 1 (strongly disagree) to 6 (strongly agree). I chose to use a 6-point Likert scale without a neutral response because Chinese culture encourages people to avoid extreme responses, which may made respondents more likely to choose the neutral response used in 7-point Likert-type scales (Dulebohn et al., 2012; Rockstuhl, Dulebohn, Ang, & Shore, 2012).

**Control variables**. I controlled for age, gender, tenure, and organizational type. The identity of the organizations was dummy-coded.

**Supervisor's perceived follower support.** The 10-item supervisor's perceived follower support scale from Eisenberger et al. (2012) was adopted to reflect leaders' perceived supportiveness from the followers as a group. Sample items are "My subordinates believe I am making important contributions to the organization," and "My subordinates really care about my well-being." ( = .88).

**Supportive supervision.** I selected 7 items from the consideration subscale of the Leader Behavior Description Questionnaire (LBDQ; Stogdill, Goode, & Day, 1962) to assess the extent to which leaders display supportive supervision behaviors. The selection criterion is based on the factor loadings reported in original LBDQ scale (from high to low). Sample items are "My supervisor is friendly and approachable," and "My supervisor looks out for the personal welfare of group members." ( = .85). Subordinates were asked to rate their supervisor's supportive behaviors.

**Supervisor's exchange ideology.** The 12-item exchange ideology scale from Eisenberger et al. (1987) was used to assess a supervisor's exchange ideology. Sample items are "If the organization cares about an employee's well-being, the employee should care about the organization's well-being," and "If the organization always treats an employee fairly, the employee should treat the organization fairly in return." ( = .98).

**Supervisor's negative reciprocity norm.** Supervisor's negative reciprocity norm was assessed using the 10-item negative reciprocity norm scale developed by Eisenberger et al. (2004). Sample items are: "If someone dislikes you, you should dislike them" and "If a person despises you, you should despise them." (= .96).

**Supervisor's creditor ideology.** Supervisor's creditor ideology was assessed using the 7-item creditor ideology scale developed by Eisenberger et al. (1987). Sample items are: "If someone does something for you, you should do something of greater value for them" and "If someone does you a favor, you should do even more in return." (= .79).

**Supervisor's reciprocation wariness.** Supervisor's reciprocation wariness was assessed using the 10-item negative wariness scale developed by Eisenberger et al. (1987). Sample items are: "It generally pays to let others do more for you than you do for them" and "When I help someone, I often find myself thinking about what is in it for me." ( = .95).

**Supervisor's need for emotional support.** Supervisor's need for emotional support was assessed using the 6-item negative need for emotional support scale developed by Hill (1987). Sample items are: "One of my greatest sources of comfort when things get rough is being with other people" and "When feel unhappy or kind of depressed, usually try to be around other people who make me feel better." (= .86).

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Supervisor's narcissism. Supervisor's narcissism was assessed using the forced-choice scale developed by Ames, Rose, and Anderson (2006). The scale contained 16 pairs of narcissistic and non-narcissistic response. Supervisors were asked to choose one answer from each pair, one of which provided the narcissistic response. Sample items are: "I know that I am good because everybody keeps telling me so (Narcissistic) vs. When people compliment me I sometimes get embarrassed (Non-narcissistic)" and "I like to be the center of attention (Narcissistic) vs. I prefer to blend in with the crowd (Non-narcissistic)." ( = .84).

Challenge stressors. Challenge stressors were measured using the 6-item challenge stressor scale developed by Cavanaugh et al., (2000). Supervisors were asked to rate the extent to which particular stressors were stressful to them. The responses ranged from 1 (no stress) to 5 (a great deal of stress). Sample items are "The number of projects and or assignments I have," and "The amount of time I spend at work." ( = .91).

**Hindrance stressors.** Hindrance stressors were measured using the 5-item hindrance stressor scale developed by Cavanaugh et al. (2000). Supervisors were asked to rate the extent to which particular stressors were stressful to them. The responses ranged from 1 (no stress) to 5 (a great deal of stress). Sample items are "The degree to which politics rather than performance affects organizational decisions," and "The inability to clearly understand what is expected of me on the job." ( = .82).

**Team performance.** Two items from Wayne, Shore, and Liden (1997) were adopted and modified to assess team performance. The managers (the supervisor's supervisors) were asked to evaluate the team performance for each work group. The two items used were "This

work group does its job well," and "This work group shows high work performance" ( = .88).

#### **Level of Analysis**

Supportive supervision denotes leader behaviors that are often aggregated to form a group-level construct (e.g., Kark et al., 2003; Shamir et al., 1998). The appropriateness of aggregating supportive supervision into a group-level construct depends on (a) whether the aggregation is theoretically meaningful and (b) whether the data is statistically appropriate for aggregation (Klein & House, 1995). The theoretical support for aggregating supportive supervision into a group-level construct is based on a shared perception among employees about leaders' behaviors.

To justify the criterion of statistical appropriateness, agreement indices such as  $r_{wg}$ , ICC (2) were computed. In my study, average  $r_{wg}$  across groups was .94, suggesting sufficient within-group agreement. In addition, ICC(1) was .39 and ICC(2) was .87, which provided sufficient evidence for between-group reliability. These results provided sufficient statistical justification for aggregating supportive supervision to the group level.

## **Analysis Strategy**

Because supervisors were nested in groups identified through managers, the use of multiple regression is not appropriate due to the violation of the assumption of independence of observations (Bryk & Raudenbush, 1992). As a result, I used hierarchical linear modeling to analyze my data (HLM 6.0). In all the models used to test the hypotheses, I included employees' age, gender, tenure, organizational type, supervisor's age, and gender as control variables.

To assess how much variance was explained across groups of employees managed by

each supervisor, I calculated intra-class correlation coefficients (ICC (1)) using fully unconditional random intercept models. Results showed that supervisors differed significantly across perceived follower support ( $_{00}$ = .03,  $_{2}$ (54) = 67.84,  $_{p}$  > .05, ICC (1) = .10), supportive supervision ( $_{00}$ = .07,  $_{2}$ (54) = 101.07,  $_{p}$  < .001, ICC (1) = .23), and team performance ( $_{00}$ = .21,  $_{2}$ (54) = 145.37,  $_{2}$ (54) = .43). These results suggest the appropriateness of using HLM for the test of the hypotheses.

#### **Results**

Means, standard deviations, reliabilities, and the zero-order correlations are shown in Table 3.

## **Construct Validity Evidence**

Confirmatory factor analyses were conducted to examine the distinctiveness of exchange ideology, negative reciprocity norm, creditor ideology, and reciprocation wariness, because these four constructs were related to supervisors' endorsement of exchange ideology. Given my sample size was small when compared to the total number of indicators (k = 82), I used parceling of items to construct three indicators for each construct (Bagozzi & Edwards, 1998). Using chi-square difference tests (Bentler & Bonett, 1980), I compared the fit of four nested models, ranging from the hypothesized four-factor model to a single one-factor model. The hypothesized four-factor model treated the factors as distinct.

Given both exchange ideology and creditor ideology involved supervisors endorsing a positive exchange ideology, I aimed to test the distinctiveness of exchange ideology and creditor ideology. Specifically, I compared the four-factor model with a three-factor model that combined exchange ideology and creditor ideology. The three-factor model was formed by fixing the covariance of exchange ideology and creditor ideology into 1. Moreover, given

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both negative reciprocity norm and reciprocation wariness involved supervisors endorsing a negative exchange ideology, the next step was to test the distinctiveness of negative reciprocity norm and reciprocation wariness. Accordingly, based on the three-factor model, I created a two-factor model that comprised the combination of negative reciprocity norm and reciprocation wariness by fixing their covariance into 1. Finally, I created a one-factor model that incorporated all four constructs. As shown in Table 1, the chi-square difference tests and overall fitness indices showed that the four-factor model fit the data significantly better than all alternative models, suggesting these constructs have sufficient discriminant validity (Medsker, Williams, & Holahan, 1994).

Moreover, to test the discriminant validity of hindrance stressors and challenge stressors, I compared a two-factor model where hindrance stressors and challenge stressors were treated as distinct variables with a one-factor model where the covariance between hindrance stressors and challenge stressors was fixed as one. As shown in Table 2, the chi-square difference tests and overall fitness indices showed the two-factor model fit the data significantly better than the one-factor model.

## **Hypotheses Tests**

Hypothesis 1 predicted that a supervisor's exchange ideology would moderate the relationship between that supervisor's perceived follower support and supportive supervision. As shown in Table 4, the interaction between a supervisor's exchange ideology and that supervisor's perceived follower support on supportive supervision was non-significant (= -.01, p > .05).

Hypothesis 2 predicted that a supervisor's negative reciprocity norm would moderate the relationship between that supervisor's perceived follower support and supportive

supervision. As shown in Table 4, the interaction between a supervisor's negative reciprocity norm and that supervisor's perceived follower support on supportive supervision was non-significant (=-.01, p>.05).

Hypothesis 3 predicted that a supervisor's creditor ideology would moderate the relationship between that supervisor's perceived follower support and supportive supervision. As shown in Table 4, the interaction between a supervisor's creditor ideology and that supervisor's perceived follower support on supportive supervision was significant (=.11, p<.01). In order to analyze this interaction, I plotted the slopes of perceived follower support predicting supportive supervision at one standard deviation above and one standard deviation below the mean of supervisor's creditor ideology (Cohen, Cohen, West, & Aiken, 2003). As shown in Figure 2, the relationship between perceived follower support and supportive supervision was stronger at high creditor ideology (B = .34, P < .001) than at low creditor ideology (B = .15, P < .05). This result suggests that when supervisors receive positive treatment from subordinates, those who tend to invest in subordinates develop a higher level of supportive supervision. Therefore, Hypothesis 3 was supported.

Hypothesis 4 predicted that a supervisor's reciprocation wariness would moderate the relationship between that supervisor's perceived follower support and supportive supervision. As shown in Table 4, the interaction between a supervisor's reciprocation wariness and that supervisor's perceived follower support on supportive supervision was non-significant (= -.01, p > .05).

Hypothesis 5 predicted that a supervisor's need for emotional support would moderate the relationship between that supervisor's perceived follower support and supportive supervision. As shown in Table 4, the interaction between a supervisor's need for

emotional support and that supervisor's perceived follower support on supportive supervision was significant (=.11, p < .05). In order to analyze this interaction, I plotted the slopes of perceived follower support predicting supportive supervision at one standard deviation above and one standard deviation below the mean of supervisor's need for emotional support (Cohen, Cohen, West, & Aiken, 2003). As shown in Figure 3, when supervisors had a high level of need for emotional support, the relationship between perceived follower support and supportive supervision was stronger (B = .33, p < .001) than when supervisors had a low level of need for emotional support (B = .15, p < .05). This result suggests that when supervisors receive positive treatment from subordinates, those who need subordinates' support tend to develop a higher level of supportive supervision. Therefore, Hypothesis 5 was supported.

Hypothesis 6 predicted that a supervisor's narcissism would moderate the relationship between that supervisor's perceived follower support and supportive supervision. As shown in Table 4, the interaction between a supervisor's narcissism and that supervisor's perceived follower support on supportive supervision was non-significant (=-.26, p>.05).

Hypothesis 7 predicted that challenge stressors would moderate the relationship between that supervisor's perceived follower support and supportive supervision. As shown in Table 4, the interaction between challenge stressors and the supervisor's perceived follower support on supportive supervision was non-significant (=.05, p>.05).

Hypothesis 8 predicted that hindrance stressors would moderate the relationship between a supervisor's perceived follower support and supportive supervision. As shown in Table 4, the interaction between hindrance stressors and the supervisor's perceived follower support on supportive supervision was non-significant (=.07, p>.05).

Hypotheses 9 and 10 predicted that a supervisor's perceived follower support would interact with supervisor dispositional variables and workplace stressors to influence supportive supervision that, in turn, would influence manager-rated team performance. To test these two hypotheses, I needed to conduct a series of mediated moderation tests. One prerequisite for such tests is the significance of the interaction between the independent variable and the moderator (Muller, Charles, & Yzerbyt, 2005). In the present study, only the supervisor's creditor ideology and need for emotional support were found to have significant interaction effects with supportive supervision. Therefore, I conducted only mediated moderation tests using these two variables (see Table 5). To test mediated moderation effects, I followed the procedures outlined by Morgan-Lopez and MacKinnon (2006) using the product of indirect effects. I then conducted Sobel tests using the z-prime statistic to assess the significance of the mediating effects. MacKinnon, Lockwood, Hoffman, West, and Sheets (2002) demonstrated that the z-prime method of testing mediation provides superior power and a lower Type 1 error rate than other methods. The results suggested that the mediated moderation tests for both supervisor's creditor ideology and supervisor's need for emotional support were significant (for supervisor's creditor ideology, z' = 1.61, p < .05 and for supervisor's need for emotional support, z' = 1.55, p < .05; critical z-prime value for statistical significance = .97). Therefore, Hypotheses 9 and 10 were partly supported.

#### **Discussion**

I found the positive relationship between PFS and supportive supervision was strengthened when supervisors were inclined to invest in other people for future benefits (i.e., creditor ideology) and when supervisors had a high level of need for emotional support.

Increased supportive supervision was in turn related to team performance. These results were

both consistent with, and extend the work of, Eisenberger et al. (2012), who reported that followers, as a group, influenced leadership behaviors. Previously, Eisenberger et al. proposed that supervisors tend to form a general perception concerning the extent to which followers value their contributions to the organization and care about their wellbeing (i.e., PFS). They found that when supervisors' POS was low, PFS was positively related to supportive supervision, which, in turn, was related to greater team performance. Therefore, in contrast to the strong emphasis in leadership research on the top-down influence of leaders on employees' attitudes and performance, the current research results suggests that followers' group support may influence leaders treatment of them. My findings provide evidence concerning leader dispositional factors that influence the magnitude of this effect.

Specifically, the relationship between PFS and supported supervision depends on supervisors' creditor ideology and need for emotional support.

With regard to creditor ideology, Greenberg and Westcott (1983) pointed out that people with high creditor ideology tend to return resources of greater value than previously received because this will place others in their debt, leading to greater future returns. This process of emphasizing future benefits is consistent with both the organizational support (e.g., Eisenberger et al., 1986) and the social exchange theory (Gouldner, 1960), which maintain that *anticipation of future benefits* can make employees feel obligated to the organization. Coyle-Shapiro and Neuman (2004) provided supporting evidence by examining the influence of creditor ideology on psychological contract inducements. They found that creditor ideology was positively related to employee perception of their obligations to the employer and the extent to which they fulfilled those obligations.

However, Eisenberger et al. (1987) also pointed out that the other party's cooperation

also influences the effects of creditor ideology. For example, in a money exchange experiment, Eisenberger et al. found high creditors failed to give more money to their partner before knowing how generous their partner would be. Once high creditors learned the degree of generosity of their partners, they started to give more money than they received. Consistent with the work of Eisenberger et al., my findings suggest that PFS indicates the level of "generosity" of the subordinate group. When supervisors perceive the subordinate group is supportive as a whole, the supervisors tend to believe that it will reciprocate with favorable treatment in the future. Therefore, supervisors with high creditor ideology tend to invest in the subordinate group by demonstrating supportive supervision. Note, however, that high creditors act on the basis of investment rather than altruism. Eisenberger et al. (1987) found that compared to low creditors, high creditors were more likely to give more resources to partners with high resources who acted stingily or partners with low resources who acted generously (Eisenberger et al., 1987). These results suggested that high creditors are interested in building good relationships with those who may—at present or in the future reciprocate with high resources.

Furthermore, my study also found supervisors' need for emotional support strengthens the relationship between PFS and supportive supervision. Organizational support theory (e.g., Eisenberger et al., 1986) maintains that employees enter into the organization not only motivated to form an economic exchange relationship, but also to satisfy their socioemotional needs. Therefore, the strength of employees' socio-emotional needs influences their favorable attitudes and work efforts on behalf of the organization. Indeed, Armeli, et al. (1998) provided evidence that POS contributes to police officers' drunk driving arrests and speeding citations, and such effects were increased with officers' need for emotional support.

The present research extends organizational support theory by showing that PFS plays a similarly important role in need fulfillment for supervisors. My results suggest that some supervisors are more susceptible to employees' influence depending on their need for emotional support. Armeli et al. found that the needs for approval achievement and emotional support also enhanced the outcomes of POS. Future research might examine similar relationships for PFS.

In addition to extending organizational support theory to encompass the upward support of the leader by the followers, the present findings extend leadership theory to the collective upward influence of followers on the treatment they receive from leaders. With some exceptions (Howell & Shamir, 2005), theories emphasizing the leader's recognition of the needs and desires of followers (e.g., transformational leadership, servant leadership, leader consideration) have neglected the collective influence of followers on the receipt of favorable treatment from the leader. Research on LMX indicates that followers, acting as individuals, influence their treatment by the leader (Dulebohn et al., 2012). The present findings suggest that the leader is also concerned with overall workgroup support, with the leader's perception of such support enhancing supportive supervision.

Supportive supervision mediated positive the conditional relationships between PFS with team performance. That is, the moderating influence of the supervisor's creditor ideology and need for emotional support on the relationship between PFS and supportive supervision carried over to manager-rated supervisor team performance. This result has great theoretical implications with regard to increasing team performance. Specifically, Eisenberger et al. (2012) found that PFS compensates for POS in predicting team performance, suggesting that subordinates, as a group, can exert bottom-up influence to

increase team performance. The current research took a further step, and found that the bottom-up influences are more effective for some supervisors (e.g., high creditor ideology and high need for emotional support) than to others. Therefore, understanding supervisors' characteristics is an important prerequisite in bottom-up influences.

Some of my hypotheses were not supported—for example, that supervisors' levels of exchange ideology, negative norm of reciprocity, reciprocation wariness, and narcissism would moderate the relationship between PFS and supportive supervision. I attribute this to the fact that the sample was from China, a country with a high power distance culture. In such cultures, people tend to grant authorities more power and conform to their opinions. Consequently, it is less likely that supervisors in China will adopt an exchange ideology with subordinates.

Moreover, I hypothesized that organizational stressors may moderate the relationship between PFS and supportive supervision because organizational stressors tend to exhaust supervisors' resources and thereby limit their abilities to support employees. However, these hypotheses were not supported, possibly because stressors such as workload and organizational politics in the present sample may not have been severe enough to threaten the supervisors' abilities to support employees. Given that supervisors may still be able to support employees, the moderating effects of the stressors could not have been strong enough to become significant. Future research may use more rigorous study designs, such as experiments or quasi-experiments, to ensure that stressors have indeed exhausted supervisors' energies, and thus explore the effects of stressors in the relationship between PFS and supportive supervision.

### **Methodological Advantages and Disadvantages**

A major methodological advantage of the present study involves the derivation of data from three different sources. As shown in Figure 1, I assessed PFS and supervisor's creditor ideology and need for emotional support from supervisors, supportive supervision from subordinates, and team performance from the managers (i.e., supervisor's supervisors). Although I found evidence of mediation, more sophisticated experimental and longitudinal designs are needed to draw stronger conclusions (Maxwell & Cole, 2007; Stone-Romero & Rosopa, 2008). Nonetheless, the multisource ratings involving subordinates, supervisors, and managers helped assuage concerns associated with common method bias. Additionally, the pattern of findings is consistent with the proposition that supervisors form a general perception concerning subordinate workgroup support, with important consequences for workgroup performance and wellbeing.

One shortcoming of the present data is its cross-sectional, rather than longitudinal, nature, which hinders inferences of causality. Moreover, the data were collected in China. Given the cultural differences between China and the US, it is difficult to generalize the present results to the American public. However, the relationship between PFS, supportive supervision, and team performance has already been shown using American samples (Eisenberger et al., 2012). The current research has successfully replicated this relationship in a different culture, confirming its high external validity with regard to the effects of PFS on supportive supervision and team performance. Therefore, to a certain degree, the current research provides supporting evidence for the generalizability of PFS effects across two cultures. Regarding other results such as the moderating effects of creditor ideology and need for emotional support, future research is needed to confirm the findings in American

samples.

## **Suggestions for Future Research**

Since the current research provides evidence for the effects of PFS, future research needs to explore its antecedents. So far, only one study has studied the antecedents of PFS; Eisenberger et al. (2012) found deep-level similarity is an antecedent of PFS. When supervisors and followers have similar values and outlooks, they are more likely to help each other. In addition to deep-level similarity, future research may examine other characteristics of the subordinate workgroup that may be related to PFS. For example, subordinates' characteristics, such as the Big Five Personality variables (i.e., conscientiousness, agreeableness, openness, extraversion, and neuroticism), may have significant effects on PFS and therefore influence supportive supervision. Specifically, conscientiousness has been found to be the Big Five personality factor most strongly associated with high work performance (Hurtz & Donovan, 2000). A more conscientious workgroup would be likely to appear to the supervisor to be more motivated to achieve assigned objectives, and thus be more supportive of the supervisor. Besides personality variables, the subordinate workgroup members' shared belief in the competence of the group as a whole, or collective efficacy (Bandura, 2000; Zaccaro, Blair, Peterson, & Zazanis, 1995), has been found to contribute to team motivation (Gully, Incalcaterra, Joshi, & Beaubien, & 2002), which may influence PFS. Future research can also examine other outcomes of PFS. For example, supervisors and other managers are often repeatedly pressured to be more productive with limited resources. Metaanalytic findings indicate that POS is associated with reduced stress (Rhoades & Eisenberger, 2002) because POS signifies that the organization will provide employees with emotional and tangible support when needed (George, Reed, Ballard, Colin, & Fielding, 1993).

Compared to POS, PFS may have a similar function for supervisors by conveying the subordinate workgroup's availability to provide tangible help and emotional support when needed.

## **Practical Implications**

The current research suggests that (a) upward influence is one pathway to increase supportive supervision and team performance and that (b) the effects of upward influence depend on supervisors' characteristics, such as creditor ideology and need for emotional support. When supervisors tend to invest for future returns and/or have a strong need to fulfill their socio-emotional needs, conveying positive valuation and caring for their supervisors will produce the maximum effects on encouraging supportive supervision. Therefore, in practice, subordinates may not only be trained and encouraged to act in ways to indicate positive valuation and caring for their supervisors but also be trained and encouraged to identify supervisors' characteristics before they indicate positive valuation and caring for their supervisors.

#### Conclusion

Supervisors formed a general perception of their valuation by the subordinate workgroup and responded to it with supportive supervision, which was, in turn, associated with greater team performance. Such effects were contingent on supervisor dispositions such as creditor ideology and need for emotional support. These findings suggest that followers may have a greater collective influence than previously considered on the supportive treatment they receive from their leader.

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Table 1. Confirmatory Factor Analysis of Constructs Related to Supervisor's Endorsement of Exchange Ideology

				RMS		
Model	df	2	<b>2</b> diff	EA	CFI	TLI
4-factor model (exchange ideology, negative reciprocity norm, creditor						
ideology, and reciprocation wariness)	47	138.39		0.12	0.94	0.92
3-factor model (based on the above model, combined exchange ideology and						
creditor ideology)	49	174.77	36.38 <sup>***</sup>	0.14	0.92	0.89
2-factor model (based on the above model, combined negative reciprocity						
norm and reciprocation wariness)	50	179.64	$4.87^{*}$	0.14	0.92	0.89
1-factor model (combined all constructs into one model)	51	258.69	79.05***	0.17	0.87	0.83

Note. N = 378.

\*\*\* p < .001.

Table 2. Confirmatory Factor Analysis of Hindrance and Challenge Stressors

				RM		
Model	df	2	2 <sub>diff</sub>	SEA	CFI	TLI
2-factor model (challenge stressors, and hindrance stressors)	41	127.51		0.11	0.93	0.90
1-factor model (combine all constructs into one model)	42	211.72	84.21***	0.15	0.85	0.81

Note. N = 378. p < .001.

Table 3. Descriptives and Correlations of All Studied Variables

Variables	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Age	29.90	6.16																
2. Gender	0.24	0.43	.03															
3. Tenure	6.47	4.71	.23**	01														
4. Org. (D1)	0.46	0.50	28**	·37*	*06													
5. Org. (D2)	0.20	0.40	$.17^{*}$	15	04	46**												
6. PFS	4.58	0.69	.02	.07	.11	07	.16	(.98)										
7. EXI	4.62	1.06	.12	13	.31**	.03	.39**	.35**	(.98)									
8. NRN	2.95	1.26	19*	38**	.03	.67**	25**	24**	.00	(.96)								
9. CI	4.28	0.79	.16	.03	.31**	25**	.27**	.32**	.50**	13	(.79)							
10. NES	4.76	0.78	.00	.29**	.06	28**	16	$.19^{*}$	04	22**	.30**	(.86)						
11. WARI	2.79	1.13	.01	10	.02	.32**	28**	27**	30**	.47**	17*	04	(.95)					
12. NAR	0.37	0.26	03	.02	35*	.15	05	.10	15	$.20^{*}$	10	10	.25**	(.84)				
13. CS	3.47	0.93	14	.00	07	.28**	35**	30 <sup>*</sup>	*33*	* .32**	17	.03	.28**	.25**	(.91)			
14. HS	2.90	0.94	16	.08	16		31**		*55*	* .14	19*	$.22^{*}$	.34**	.11	.64**	(.82)		
15. SS	4.48	0.51	.07	03	.23**	04	.23**	.35**	* .40* <sup>*</sup>	*14	$.22^{*}$	03	21*	.01	23**	40**	(.85)	
16. TP	3.70	0.76	.10	.02	.13	.15	25**	.14	.01	05	05	.00	.10	.01	11	11	.17*	(.88)

*Note.* D=Dummy Code; Org.=Organization; PFS=Perceived Follower Support; EXI= Exchange Ideology; NRN=Negative Reciprocity Norm; CI=Creditor Ideology; NES=Need for Emotional Support; WARI=Wariness; NAR=Narcissism; CS=Challenge Stressors; HS=Hindrance Stressors; SS=Supportive Supervision; TP=Team Performance.

N = 134. Cronbach's alphas are provided in parentheses on the diagonal.

<sup>\*</sup>p <.05, \*\*p <.01, \*\*\*p <.001.

Table 4. Hierarchical Linear Modeling Results for Moderating Effects

			Sı	apportive S	Supervisio	on		
	M1	M2	M3	M4	M5	M6	M7	M8
Intercept	4.37***	4.28***	4.26***	4.48***	4.29***	4.31**	4.32***	4.42***
Tenure	03	02	01	02	02	03	03	03
Org. (D1)	.14	.24	.27	.04	.24	.21	.22	.09
Org. (D2)	.27	.41***	.44**	.25	.40**	.40*	.37*	.23
Gender	01	01	02	<01	01	03	01	03
Age	<.01	<01	<01	<.01	<.01	<.01	<.01	<.01
PFS	.22***	.25**	.26***	.24***	.24***	.26***	.26***	.23***
EXI	.09							
PFS ×EXI	01							
NRN		01						
PFS ×NRN		01						
CI			.05					
$PFS \times CI$			.11**					
NES				<01				
PFS × NES				.11*				
WARI					03			
PFS ×					01			
WARI								
NAR						06		
PFS × NAR						26		
CS							05	
$PFS \times CS$							.05	
HS								12
$PFS \times HS$								.07

*Note.* M=Model; D=Dummy Code; Org.=Organization; PFS=Perceived Follower Support; EXI= Exchange Ideology; NRN=Negative Reciprocity Norm; CI=Creditor Ideology; NES=Need for Emotional Support; WARI=Wariness; NAR=Narcissism; CS=Challenge Stressors; HS=Hindrance Stressors; SS=Supportive Supervision; TP=Team Performance. N=134. \*p<.05, \*\*p<.01, \*\*\*p<.001.

Table 5. Hierarchical Linear Modeling Results for Mediated Moderation Effects

	Team Per	rformance
	Model 1	Model 2
Intercept	3.71***	3.73***
Tenure	.08	.10
Org. (D1)	.09	.02
Org. (D2)	50*	59*
Gender	10	08
Age	<.01	.01
PFS	.12	.11
CI	02	
$PFS \times CI$	.17	
NES		08
$PFS \times NES$		.03
SS	.22*	.24*

Note. D=Dummy Code; Org.=Organization; PFS=Perceived Follower Support; CI=Creditor Ideology; NES=Need for Emotional Support; SS=Supportive Supervision;  $^{a}$  N = 134.  $^{*}p < .05$ ,  $^{**}p < .01$ ,  $^{***}p < .001$ .

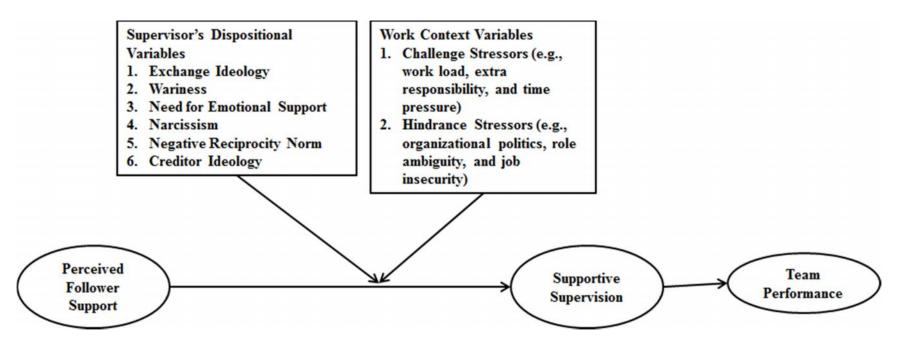


Figure 1. Hypothesized model for the moderators of the relationship between perceived follower support and supportive supervision

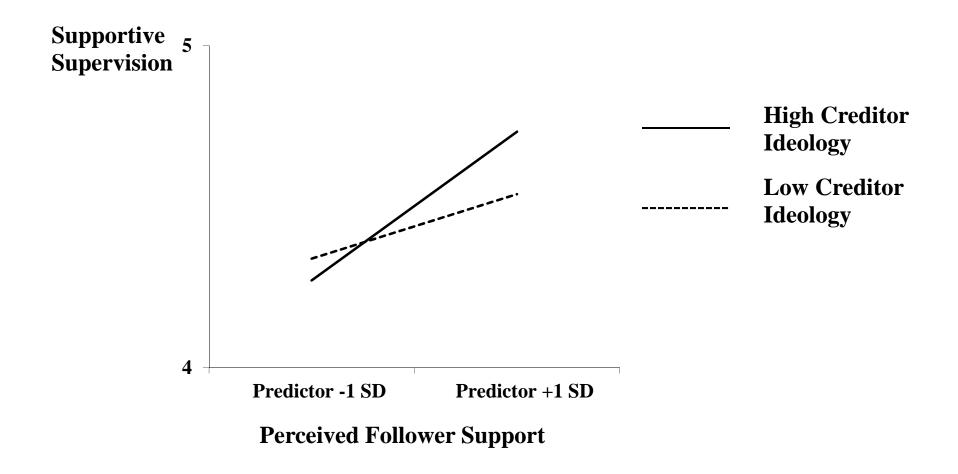


Figure 2. Simple slope plot for the interaction between perceived follower support and creditor ideology on supportive supervision

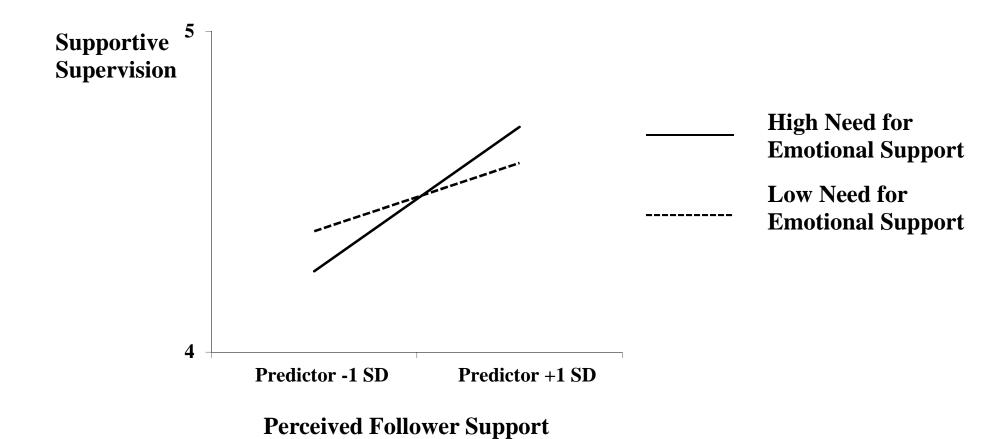


Figure 3. Simple slope plot for the interaction between perceived follower support and need for emotional support on supportive supervision

# Appendix

## List of Scales

## **Employee Questionnaire**

A. Supportive Supervision

# Supervisor Questionnaires

- B. Perceived Follower Support
- C. Exchange Ideology
- D. Creditor Ideology
- E. Need for Emotional Support
- F. Reciprocation Wariness
- G. Negative Reciprocity Norm
- H. Narcissism
- I. Challenge Stressor
- J. Hindrance Stressor

## Manager Questionnaire

K. Team Performance

## **Employee Questionnaire**

A. Supportive Supervision. Six items are from consideration subscale of the Leader Behavior Description Questionnaire (LBDQ; Stogdill, Goode, & Day 1962). New leader behavior description subscales. *Journal Of Psychology: Interdisciplinary and Applied*, *54*, 259-269. Two items are from authoritative leadership style scale (De Hoogh, Den Hartog, & Koopman, 2005). De Hoogh, A. B., Den Hartog, D. N., & Koopman, P. L. (2005). Linking the big five-factors of personality to charismatic and transactional leadership; perceived dynamic work environment as a moderator. *Journal Of Organizational Behavior*, *26*, 839-865. doi:10.1002/job.344

Please indicate how much you agree or disagree with the following statements using the choices below.

1	2	3	4	5	6
Strongly	Moderately	Slightly	Slightly	Moderately	Strongly
Disagree	Disagree	Disagree	Agree	Agree	Agree

- 1. My supervisor is friendly and approachable.
- 2. My supervisor puts suggestions made by the group into operation.
- 3. My supervisor makes him/herself accessible to group members.
- 4. My supervisor looks out for the personal welfare of group members.
- 5. My supervisor is willing to make changes.
- 6. My supervisor explains his or her actions.
- 7. My supervisor consults the group when making changes.
- 8. My supervisor gives advance notice of changes.

## **Supervisor Questionnaires**

B. Perceived Follower Support. Adapted from the 10-item POS scale from Eisenberger et al. (1986). (Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal Of Applied Psychology*, 71(3), 500-507. doi:10.1037/0021-9010.71.3.500)

1	2	3	4	5	6
Strongly	Moderately	Slightly	Slightly	Moderately	Strongly
Disagree	Disagree	Disagree	Agree	Agree	Agree

- 1. My subordinates believe I am making important contributions to the Department.
- 2. My subordinates really care about my well-being.
- 3. If given the opportunity, my subordinates would take advantage of me.
- 4. My subordinates feel that anyone could perform my job as well as I do.
- 5. If I were to be laid off, my subordinates would be sympathetic.
- 6. My subordinates fail to understand what a good job I am doing.
- 7. My subordinates feel the Department made the right decision in appointing me as their supervisor.
- 8. My subordinates believe I am doing an excellent job.
- 9. If I received recognition for my accomplishments, my subordinates would be happy for me.
- 10. My subordinates show little interest in my welfare.

C. Exchange Ideology (Eisenberger, R., Cotterell, N., & Marvel, J. (1987). Reciprocation ideology. *Journal Of Personality And Social Psychology*, *53*(4), 743-750. doi:10.1037/0022-3514.53.4.743)

1	2	3	4	5	6
Strongly	Moderately	Slightly	Slightly	Moderately	Strongly
Disagree	Disagree	Disagree	Agree	Agree	Agree

- 1. If the employees care about the supervisor's well-being, the supervisor should care about the employees' well-being.
- 2. If the employees always treat the supervisor fairly, the supervisor should treat the employees fairly in return.
- 3. If the employees protect the supervisor's best interests, the supervisor should protect the employees' best interests.
- 4. If the employees help the supervisor to achieve his/her goals, the supervisor should help the employees to achieve its goals.
- 5. If the employees treat the supervisor in a caring way, the supervisor should treat the employees in a caring way.
- 6. If the employees are committed to the supervisor's welfare, the supervisor should repay the employees with a commitment to their welfare.

- 7. If the employees treat the supervisor with warmth, the supervisor should care about the employees in return.
- 8. If the employees put their trust in the supervisor, the supervisor should repay the employees with trust.
- 9. If the employees go out of their way to help the supervisor, the supervisor should go out of his/her way to help the employees.
- 10. If the employees help the supervisor, the supervisor should help the employees.
- 11. If the employees give the supervisor more benefits, the supervisor owes it to the employees to give them more benefits.
- 12. If the employees improve their performance, the supervisor should put more effort into them.

D. Creditor Ideology. (Eisenberger, R., Cotterell, N., & Marvel, J. (1987). Reciprocation ideology. *Journal Of Personality And Social Psychology*, *53*(4), 743-750. doi:10.1037/0022-3514.53.4.743)

Please indicate your opinion for the following statements by circling the appropriate option.

1	2	3	4	5	6
Strongly	Moderately	Slightly	Slightly	Moderately	Strongly
Disagree	Disagree	Disagree	Agree	Agree	Agree

- 1. If someone does something for you, you should do something of greater value for them
- 2. If someone does you a favor, you should do even more in return.
- 3. If someone goes out of their way to help me, I feel as though I should do more for them than merely return the favor.
- 4. If a person does you a favor, it's a good idea to repay that person with a greater favor.
- 5. It's necessary to return favors quickly.
- 6. As a rule, I don't accept a favor if I can't return the favor.
- 7. If someone returned a wallet you lost, you should try to do something in order to repay him/her.

E. Need for Emotional Support (Armeli, S., Eisenberger, R., Fasolo, P., & Lynch, P. (1998). Perceived organizational support and police performance: The moderating influence of socioemotional needs. *Journal of Applied Psychology*, 83(2), 288-297. doi:10.1037/0021-9010.83.2.288)

1	2	3	4	5	6
Strongly	Moderately	Slightly	Slightly	Moderately	Strongly
Disagree	Disagree	Disagree	Agree	Agree	Agree

- 1. One of my greatest sources of comfort when things get rough is being with other people
- 2. When I feel unhappy or kind of depressed, I usually try to be around other people who make me feel better
- 3. It seems like whenever something bad or disturbing happens to me I often just want to be with a close, reliable friend
- 4. During times when I have to go through something painful, I usually find that having someone with me makes it less painful
- 5. When I have not done very well on something that is very important to me, I can get to feeling better simply by being around other people
- 6. I usually have the greatest need to have other people around me when I feel upset about something

F. Reciprocation Wariness. (Eisenberger, R., Cotterell, N., & Marvel, J. (1987). Reciprocation ideology. *Journal of Personality And Social Psychology*, *53*(4), 743-750. doi:10.1037/0022-3514.53.4.743)

Please indicate how much you agree or disagree with the following statements using the choices below.

1	2	3	4	5	6
Strongly	Moderately	Slightly	Slightly	Moderately	Strongly
Disagree	Disagree	Disagree	Agree	Agree	Agree

- 1. The most realistic policy is to take more from others than you give.
- 2. It generally pays to let others do more for you than you do for them.
- 3. In the long run, it's better to accept favors than to do favors for others.
- 4. You shouldn't offer to help someone if they don't ask for your help.
- 5. You should help others so that later they'll help you.
- 6. You should not bend over backwards to help another person.
- 7. I feel used when people ask favors of me.
- 8. You should help others without expecting something in return
- 9. Asking for another's help gives them power over your life.
- 10. You seldom benefit from giving a lot in a relationship with others.

G. Negative Reciprocity Norm. (Eisenberger, R., Lynch, P., Aselage, J., & Rohdieck, S. (2004). Who Takes the Most Revenge? Individual Differences in Negative Reciprocity Norm

Endorsement. *Personality And Social Psychology Bulletin*, 30(6), 789-799. doi:10.1177/0146167204264047)

Please indicate your opinion for the following statements by circling the appropriate option.

1	2	3	4	5	6
Strongly	Moderately	Slightly	Slightly	Moderately	Strongly
Disagree	Disagree	Disagree	Agree	Agree	Agree

- 1. If someone dislikes you, you should dislike them.
- 2. If a person despises you, you should despise them.
- 3. If someone says something nasty to you, you should say something nasty back.
- 4. If a person wants to be your enemy, you should treat them like an enemy.
- 5. If someone treats me badly, I feel I should treat them even worse.
- 6. If someone treats you badly, you should treat that person badly in return.
- 7. If someone important to you does something negative to you, you should do something even more negative to them.
- 8. A person who has contempt for you deserves your contempt.
- 9. If someone treats you like an enemy, they deserve your resentment.
- 10. When someone hurts you, you should find a way they won't know about to get even.

H. Narcissism. (Ames, D. R., Rose, P., & Anderson, C. P. (2006). The NPI-16 as a short measure of narcissism. *Journal Of Research In Personality*, 40(4), 440-450. doi:10.1016/j.jrp.2005.03.002)

Please choose one answer from the two options.

Narcissistic response	Non-narcissistic response
1 I know that I am good because everybody keeps telling me so	1 When people compliment me I sometimes get embarrassed
2 I like to be the center of attention	2 I prefer to blend in with the crowd
	3 I am no better or no worse than most
3 I think I am a special person	people
4 I like having authority over people	4 I don't mind following orders
5 I find it easy to manipulate people	5 I don't like it when I find myself

	manipulating people		
6 I insist upon setting the respect that is due			
me	6 I usually get the respect that I deserve		
7 I am apt to show off if I get the chance	7 I try not to be a show off		
	8 Sometimes I am not sure of what I am		
8 I always know what I am doing	doing		
9 everybody likes to hear my stories	9 Sometimes I tell good stories		
10 I expect a great deal from other people	10 I like to do things for other people		
	11 It makes me uncomfortable to be the		
11 I really like to be the center of attention	center of attention		
12 People always seem to recognize my	12 Being an authority doesn't mean that		
authority	much to me		
13 I am going to be a great person	13 I hope I am going to be successful		
14 I can make anybody believe anything I	14 People sometimes believe what I tell		
want them to	them		
	15 There is a lot that I can learn from other		
15 I am more capable than other people	people		
16 I am an extraordinary person	16 am much like everybody else		

I. Challenge Stressor. (Cavanaugh, M. A., Boswell, W. R., Roehling, M. V., & Boudreau, J. W. (2000). An empirical examination of self-reported work stress among U.S. managers. *Journal Of Applied Psychology*, 85(1), 65-74. doi:10.1037/0021-9010.85.1.65)

Please indicate your opinion for the following statements. To what extent the following statements produced stress at work?

1	2	3	4	5	
No Stress	A Little Bit Stress	Some Stress	Much Stress	A Great Deal of Stress	

1. The number of projects and or assignments I have.

- 2. The amount of time I spend at work.
- 3. The volume of work that must be accomplished in the allotted time
- 4. Time pressures I experience.
- 5. The amount of responsibility I have.
- 6. The scope of responsibility my position entails.
- J. Hindrance Stressor. (Cavanaugh, M. A., Boswell, W. R., Roehling, M. V., & Boudreau, J. W. (2000). An empirical examination of self-reported work stress among U.S. managers. *Journal Of Applied Psychology*, 85(1), 65-74. doi:10.1037/0021-9010.85.1.65)

Please indicate your opinion for the following statements. To what extent the following statements produced stress at work?

1	2	3	4	5
No Stress	A Little Bit Stress	Some Stress	Much Stress	A Great Deal of Stress

- 1. The degree to which politics rather than performance affects organizational decisions.
- 2. The inability to clearly understand what is expected of me on the job.
- 3. The amount of red tape I need to go through to get my job done.
- 4. The lack of job security I have.
- 5. The degree to which my career seems "stalled."

## **Managers Questionnaire**

K. Team Performance. (Wayne, S. J., Shore, L. M., & Liden, R. C. (1997). Perceived organizational support and leader-member exchange: A social exchange perspective. *Academy Of Management Journal*, 40(1), 82-111. doi:10.2307/257021)

1	2	3	4	5	6
Strongly	Moderately	Slightly	Slightly	Moderately	Strongly
Disagree	Disagree	Disagree	Agree	Agree	Agree

- 1. This work group gets its work done very effectively
- 2. This work group does its job well
- 3. This work group shows high work performance