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How Far Can Support Go? Supported Supervisors' Performance and Subordinate Dedication

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Abstract

Purpose The present study builds on prior research involving organizational support theory and the trickle-down effects of supervisors' perceived organizational support (POS). We examine benefits of supervisor POS for the supervisors themselves (enhanced affective commitment and in-role performance), and a behavioral mechanism through which supervisors' POS may lead to subordinate dedication, a multifaceted conceptualization of performance.

Design/Methodology/Approach Using three sources of data (from 139 human resource professionals, their 47 supervisors, and the 22 bosses of their supervisors) we assessed the hypothesized relationships using multilevel path modeling.

Findings Supervisors' POS related positively to supervisors' affective commitment to their organization, resulting in better supervisor in-role performance two months later. Also, having better performing supervisors resulted in more dedication by employees in the form of extra-role performance, as rated by their supervisor 2 months later, and extra hours worked.

Implications It appears providing organizational support to supervisors may result in beneficial outcomes for the supervisors and the organization in terms of supervisors' enhanced emotional attachment to the company, and better performance in their job, with consequences for subordinate dedication in terms of extra hours worked and extra-role performance.

Originality/Value These findings contribute to organizational support theory by showing initial evidence that supervisor in-role performance can serve as an explanatory mechanism through which supervisors' POS trickles down to aid subordinates.

Keywords Perceived organizational support · Affective commitment · Trickle-down effects · Supervisor performance · Subordinate dedication

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Introduction

Supervisors are in the challenging position of having to work effectively with those above and below them in the organization (Gentry and Shanock 2008). Supervisors, from frontline managers to middle managers and above, are responsible for the day-to-day activities involved in supervising and developing their subordinates, while also being charged with tasks from above that can have direct implications for the success of the organization, such as implementing organizational strategy, innovation, and change efforts (Gentry and Sosik 2010). Thus, supervisors differ from non-managerial employees in that they must meet their own performance goals and also ensure that their subordinates are meeting performance goals. Similar to non-managerial employees, however, supervisors develop attitudes about the organization based on their experiences and treatment by the organization, though such experiences may be unique compared to those of non-managerial employees (Erdogan and Enders 2007; Gentry and Shanock 2008; Masterson 2001; Shanock and Eisenberger 2006).

Supervisors are salient figures to subordinates because, among other duties, they are tasked with directing, evaluating, and coaching subordinates (Eisenberger et al. 2010; Loi et al. 2012). Consequently, the attitudes that supervisors develop about the organization and their behaviors that result may trickle down to affect the attitudes and behaviors of their subordinates (Baran et al. 2012; Gentry and Shanock 2008; Shanock and Eisenberger 2006). To this point, within the past decade, research involving organizational support theory has started to consider some theoretical implications involving the important yet unique position of supervisors (e.g., Baran et al. 2012). Organizational support theory is the primary theoretical framework used to describe the nature of perceived organizational support (POS), its potential antecedents, outcomes, and theoretical mechanisms (Baran et al. 2012; Eisenberger and Stinglhamber 2011; Rhoades and Eisenberger 2002). POS refers to employees' global beliefs that their work organization values their contributions and cares about their well-being (Eisenberger et al. 1986). Employees develop these global beliefs in order to determine the organization's readiness to reward increased work effort, as well as to fulfill socioemotional needs like caring, affiliation, approval, and esteem (Baran et al. 2012; Rhoades and Eisenberger 2002). Because organizational support theory is based on social exchange theory and the norm of reciprocity, it states that when employees feel supported by the organization, they develop a sense of obligation to reciprocate felt support with something of value to the organization (Blau 1964; Rhoades and Eisenberger 2002). Consequently, workers will trade increased effort in the form of task performance or in-role performance, for example, in exchange for tangible (e.g., pay raises, promotions) and intangible benefits (e.g., socioemotional need fulfillment) (Baran et al. 2012; Rhoades et al. 2001).

Previous research provides support for a "trickle-down" effect whereby supervisors' attitudes about the organization influence their subordinates' attitudes and behaviors. For example, Shanock and Eisenberger (2006) found supervisors with higher levels of POS had subordinates with higher levels of POS, in-role and extra-role performance. Despite Shanock and Eisenberger's (2006) initial findings regarding the trickle-down effect of supervisor attitudes, organizational support theory research is only beginning to delve into why supervisor POS leads to better performance and helping behavior by their subordinates. Thus, the goal of our study is to examine a potential mechanism through which supervisors who feel supported might have more dedicated subordinates. We draw on social exchange theory further to develop a theoretical framework to explain the trickle-down effect of supervisor POS (Bandura 1977; Blau 1964). Social exchange theory argues that supervisors repay benefits received by the

organization, like support, by caring about the organization's well-being and helping the organization achieve its goals (Wo et al. 2015). As we argue below, this suggests that supervisor in-role performance may serve as a mechanism by which supervisor POS leads to enhanced subordinate dedication to their job, in the form of in-role and extra-role performance as well as extra hours work beyond what is contracted. Figure 1 illustrates the proposed model.

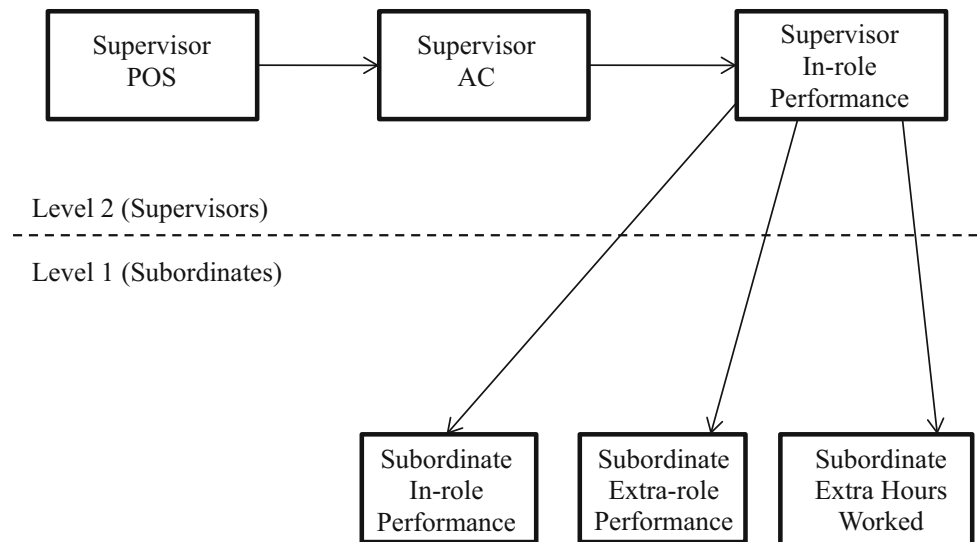## Supervisor POS and Supervisor Affective Commitment

Affective commitment refers to employees' emotional attachment to their work organization (Meyer and Allen 1997). Affectively committed employees identify with the organization and are happy and proud to work at their organization (Loi et al. 2012; Meyer and Allen 1997; Meyer et al. 2002). Whereas POS involves the perception that the organization values and cares about the well-being of its employees, affective commitment captures the extent to which employees care about the organization (Shore and Wayne 1993). Thus, the relationship between POS and affective commitment involves a social exchange of caring-for-caring.

According to social exchange theory and the norm of reciprocity, people feel obligated to reciprocate received benefits, and previous research suggests that social exchange norms can govern employees' relationships with their organization (e.g., Blau 1964; Baran et al. 2012; Rhoades et al. 2001). If employees feel that their organization supports them, employees, in exchange, feel they should care about the organization, become emotionally attached, and incorporate the organization into their identity (i.e., become affectively committed). Also, organizational support theory explains that POS helps fulfill needs for esteem, approval, and affiliation (Eisenberger and Stinglhamber 2011). Thus, the satisfaction of emotional needs resulting from POS would be expected to lead an employee to reciprocate with increased emotional attachment to the organization (Rhoades et al. 2001).

Numerous studies support this argument and have found positive relationships between POS and affective commitment (see Baran et al. 2012; Rhoades and Eisenberger 2002; and Meyer et al. 2002 for reviews). Furthermore, using a cross-lagged panel design, Rhoades et al. (2001) provided longitudinal evidence that POS had a positive relationship with affective commitment over time. In particular, the authors found that higher affective commitment did not lead to higher POS, but higher levels of POS did lead to greater affective commitment.

Although supervisors have likely been included along with non-supervisors in samples of research involving POS and affective commitment, to date only two studies have

Fig. 1 Hypothesized model. *POS* perceived organizational support, *AC* affective commitment

specifically examined the affective commitment of supervisors (Guerrero and Herrbach 2009; Loi et al. 2012) and only one of those studies included POS as an antecedent of supervisor affective commitment (Guerrero and Herrbach 2009). Supervisors' day-to-day tasks differ from subordinates, as their jobs not only include directing and evaluating those below them, but carrying out the strategies decided by those above them (Gentry and Shanock 2008; Wooldridge et al. 2008). Thus, POS should be just as important, if not more important to the affective commitment of supervisors as for non-managerial employees. Similar to non-managerial employees, we expect a positive relationship between supervisor POS and affective commitment for two reasons.

First, social exchange theory is applicable across a wide variety of relationships; thus, the exchange of caring-for-caring should hold for supervisors as it does for non-managerial employees. Though organizations may show support to supervisors in different ways than to subordinates (e.g., freedom to manage their subordinates in the way they desire; input into strategic direction of the organization), if the organization shows that they care about the supervisor's well-being, based on the norm of reciprocity, the supervisor should return those feelings and care about the organization's well-being. Second, organizational support theory would posit that POS is likely to fulfill supervisors' needs for esteem, approval, and affiliation (Eisenberger and Stinglhamber 2011). Consequently, supervisors will feel obligated to give back to the organization. In line with these arguments, Guerrero and Herrbach (2009) found a significant positive relationship between supervisors' POS and their affective commitment. Based on organizational support theory and these empirical findings, we propose the following replication hypothesis:

Hypothesis 1 Supervisor POS will be positively related to their affective commitment.

Supervisor POS, Affective Commitment, and In-Role Performance

Affective commitment has been considered an important determinant of in-role performance. Affectively committed employees are said to have higher performance because they have a sense of belonging in their organization, an enhanced willingness to help the organization pursue its goals, and a tendency to increase their levels of involvement in the organization's activities (Meyer et al. 2002; Rhoades et al. 2001). Accordingly, affective commitment has shown a consistent positive relationship with employee in-role performance (Meyer et al. 2002), defined as the performance of tasks associated with one's job description (Williams and Anderson 1991).

In organizational support theory, affective commitment is a key theoretical mechanism through which POS is related to in-role performance (e.g., Casimir et al. 2014; Settoon et al. 1996; Wayne et al. 1997), such that employees will reciprocate support by being committed to the organization, which increases employees' willingness to help the organization achieve its goals. These arguments would be expected to hold for supervisors as well. As with non-managerial employees, the sense of competence and feeling of worth afforded by POS should result in greater emotional attachment, socioemotional need fulfillment (e.g., needs for approval and esteem), and identification with the organization (e.g., Eisenberger et al. 2001; Marique et al. 2012), leading to higher performance for supervisors.

Examining predictors of in-role performance of supervisors, such as their POS and affective commitment, is

perhaps even more important than for lower-level employees because supervisors have higher levels of responsibility (e.g., Gentry and Shanock 2008) and are charged with a critical role of supervising others and implementing human resource practices and policies (Kuvaas et al. 2014). They also are expected to continue to cascade the organization's strategy down to those below them by translating the strategy into day-to-day operations, aligning subordinates' tasks with organizational strategy, and building up subordinate buy-in (Wooldridge et al. 2008). Often times, this involves supervisors providing support, mentoring, and development to subordinates (Yukl 2002). Thus, supervisors have higher-stakes consequences for poor performance than non-managerial employees. Consistent with organizational support theory (e.g., Eisenberger and Stinglhamber 2011; Marique et al. 2012), we propose that supervisors will work harder to help ensure the success of their organization if they feel attached to and identify with the organization's goals and values, which may be a result of feeling cared about and supported by the organization.

Hypothesis 2 Supervisor affective commitment will mediate the relationship between supervisor POS and their in-role performance.

Supervisor Performance: A Trickle-Down Mechanism

In their original study of the trickle-down effects of supervisors' POS, Shanock and Eisenberger (2006) found supervisors' POS related positively to subordinate outcomes including enhanced in-role and extra-role performance as rated by their supervisors. However, they noted that further research was needed to determine the mechanisms through which supervisors' POS leads to such subordinate outcomes. This sentiment was more recently echoed in a review and theoretical integration of the POS literature by Baran et al. (2012) and represents the primary contribution of our study. Using social exchange theory, we propose that supervisor's in-role performance is a key mechanism explaining the trickle-down effect of supervisor's POS on subordinate outcomes, and in particular, subordinate dedication. We argue below that when supervisors have higher in-role performance (e.g., are more invested in developing and supporting their subordinates, among other duties), those subordinates should develop a greater level of dedication.

Employees' dedication to their job is described in a variety of forms in the literature, including higher-quality inputs to the organization, working hard and persisting on job tasks (in-role performance), and engaging in extra-role behaviors that go beyond what is required in their work

roles to help the organization reach its goals, such as helping others or working extra hours (e.g., Gill and Mathur 2007; Liu et al. 2013; Van Scotter and Motowidlo 1996). Thus, in the current study we include a multifaceted conceptualization of subordinate dedication, which is comprised of subordinate in-role performance (Williams and Anderson 1991), subordinate extra-role performance (Williams and Anderson 1991), and extra hours worked beyond the normal work hours expected for the job.

Supervisor In-Role Performance as a Mediator Between Supervisor Affective Commitment and Subordinate Dedication

As mentioned previously, the norm of reciprocity and social exchange theory suggests that when people receive something of value from another party (albeit another person or an organization), they feel obligated to reciprocate something of value to the original benefactor (Blau 1964). As such, supervisors who feel supported by the organization will, in exchange, feel emotionally attached to and incorporate the organization into their social identity (Marique et al. 2012). In the case of supervisors specifically, they are also representatives acting on behalf of the organization (Eisenberger et al. 2002; Loi et al. 2012). Supervisors who have integrated the organization into their social identity should act out their role as agents, or representatives, of the organization to a greater degree than less affectively committed supervisors. Furthermore, affectively committed supervisors will want to help the organization reach its objectives in order to repay felt support from the organization.

Given their role as representatives of the organization, one way that supervisors reciprocate perceived support is through embracing their in-role performance duties, which likely include dedicating time to interactions with and development of employees below them (Gentry and Sosik 2010; Paustian-Underdahl et al. 2013; Wo et al. 2015). In his book, Yukl (2002) presents a number of definitions of supervisory activities, many of which include "trying to get people to perform better" and "motivating subordinates" (pp. 5–6). In addition, management roles involve four basic principles (i.e., planning, coordinating, organizing, and leading; Bateman et al. 2017). Managers are not expected to engage in all functions at once. Instead, effective managers are those that develop skills associated with each function, including leading, which refers to stimulating people to be high performers and motivating and communicating with employees. In line with this discussion, we argue that activities such as developing, supporting, mentoring, and guiding subordinates are part of many supervisors' in-role performance expectations.

Supervisors with high affective commitment would be expected to focus on their in-role duties, part of which are reasonably defined as helping their subordinates carry out their jobs more effectively and the willingness to mentor and develop subordinates, which should help the subordinates perform better (Loi et al. 2012; Tepper and Taylor 2003). As social exchange theory argues, by helping subordinates carry out their jobs more effectively, supervisors with high affective commitment are repaying the organization by carrying out part of their supervisor duties and helping the organization reach its objectives through enhanced subordinate performance (Donsbach and Shanock 2008; Loi et al. 2012; Shanock and Eisenberger 2006). We examined ratings of in-role performance and extra-role performance as well as subordinates' reports of their extra hours worked because dedicated employees not only concentrate on getting the job done, but are also likely to work extra hours above what other, less dedicated employees work (Van Scotter and Motowidlo 1996). Dedicated employees want to ensure that they are putting their best efforts toward both their own job demands and helping others reach their highest performance (Gill and Mathur 2007).

Hypothesis 3 Supervisors' in-role performance is positively related to subordinate dedication in the form of in-role performance, extra-role performance, and extra hours worked.

Hypothesis 4 Supervisors' in-role performance mediates the relationship between supervisor affective commitment and subordinate dedication in the form of in-role performance, extra-role performance, and extra hours worked.

Methods

Sample and Procedure

Our sample was comprised of 139 subordinates and 47 supervisors ($M = 3$ subordinates per supervisor, range 1–9) of a Fortune 500, multinational, manufacturing organization headquartered in the Southeastern United States. All employees served in human resources roles in the organization, with 55 % located in the USA, Canada, or South America, 26 % in Europe, and 19 % located in China, India, Australia, or New Zealand. All participants spoke English, regularly conducted business, and interacted with others in English as part of their job. We found no differences on the variables to be used as endogenous (dependent) variables in our model based on nationality.

This research was conducted as part of an ongoing assessment initiative within the human resources function for the organization. The goals of the project and the data

gathering procedures were communicated to the full HR population within the organization ($N = 280$) via a global video conference call (held by the Chief Human Resources Officer) and email. The data collection was split into two phases. Phase 1 surveyed all HR professionals within the organization; Phase 2 occurred two months after the end of Phase 1 and surveyed the supervisors of Phase 1 participants to gather performance data.

Data collection for Phase 1 began with a member of our research team sending an email to the target HR population which included an introduction of ourselves, a more detailed introduction to the project, and an online survey link inviting them to participate in the self-report research. The survey included an informed consent process, self-report attitude measures, demographic information, and links to additional measures not used in the present research (e.g., a human resource competency assessment and a cognitive ability assessment). Participants were also asked to identify their direct supervisor. To encourage higher rates of participation, participants had the option to complete the survey from their office computers during normal business hours. Also, reminder emails encouraging the HR employees to complete the online survey were sent to the population 7, 10, and 14 days after the initial email. A total of 194 HR professionals completed the survey in Phase 1 (a response rate of about 69 %).

Two months after the above assessments closed, Phase 2 began. After compiling the direct supervisor information provided by Phase 1 participants and condensing duplicates (i.e., when one supervisor oversaw more than one subordinate), there were a total of 82 supervisors.[1] A high-ranking member of the HR staff sent an email to these 82 supervisors explaining the project and notifying them that the researchers would be contacting them for performance ratings of their subordinates. The next day, a member of our research team emailed the 82 supervisors; the email contained a link to the performance rating survey and asked the supervisor to rate in-role and extra-role performance for each of the HR employees that identified them as a supervisor. Our supervisor sample consequently consisted of those employees who have direct reports (subordinates) below them and report directly to their boss above them; it is possible that the supervisors reside at various levels in the organization. In terms of experience, 25 % of the supervisors had 3–7 years of experience, 41 % had 8–14 years of experience, and 34 % had more than 15 years of experience.

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[1] Forty-seven of the Phase 1 participants were identified as supervisors. Thus, in Phase 1, these 47 participants answered the self-report attitude measures (e.g., POS and affective commitment) and identified their direct supervisor. They also participated in Phase 2 by rating the performance of their subordinates. Their performance was also rated in Phase 2 by their bosses.

Once we matched data sources and accounted for data missing from one or more of the sources that needed to be matched, the sources and sample sizes are as follows:

(a) Supervisors' self-report data of their own POS and affective commitment ($N = 47$),
(b) Supervisors' in-role performance, as rated by the supervisor's bosses' ($N = 22$). Note: we will refer to this sample as bosses throughout the paper to avoid confusion between the focal supervisors in our study and their supervisors above them (bosses),
(c) Supervisor ratings of subordinates' in-role and extra-role performance ($N = 90$),
(d) Subordinates' self-reported extra hours worked ($N = 139$).

Although our sample size appears quite small, we conducted a post hoc power analysis for multilevel models to determine the amount of power we have to detect small and medium effect sizes. We found that, given our sample size, we have limited power to detect small effect sizes and adequate power to detect medium effect sizes.

Measures

All measures were assessed using a 5-point Likert-type scale ($1 = strongly\ disagree$; $5 = strongly\ agree$) except where otherwise noted.

Supervisor POS

Supervisors completed the Survey of perceived organizational support (Eisenberger et al. 1986; Eisenberger and Stinglhamber 2011; Rhoades and Eisenberger 2002). We used the six items from Eisenberger et al. (1986) that have been commonly used in recent research (e.g., Shanock and Eisenberger 2006). Sample items include "My work organization really cares about my well-being" and "My work organization values my contributions to its well-being."

Supervisor Affective Commitment

Supervisors completed the Meyer and Allen (1997) 6-item affective commitment questionnaire. Sample items include "I am proud to tell others that I work at this organization" and "I feel personally attached to my work organization."

In-Role Performance

In-role performance of both supervisors and subordinates was assessed 2 months following the gathering of the supervisor POS and affective commitment measures. For the supervisors in our study, the supervisor's boss ($N = 22$)

provided ratings of in-role performance. For the subordinates in our study, the supervisors ($N = 47$ focal supervisors in the study) provided ratings of in-role performance for each of their subordinates. Therefore, in-role performance was consistently rated by a higher source. Bosses and supervisors used Williams and Anderson's (1991) seven-item measure of in-role behaviors. Sample items include "Fulfills responsibilities specified in the job description" and "Meets formal performance requirements of the job." The bosses and supervisors responded to each item using a 5-point response scale ($1 = does\ not\ meet\ expectations$ to $5 = significantly\ exceeds\ expectations$). Supervisors' in-role tasks and job description include carrying out tasks from their bosses as well as directing and evaluating their subordinates. Consequently, we argue that this measure captures, in part, the extent to which supervisors engage in tasks related to mentoring and evaluating their subordinates.

Subordinates' Extra-Role Performance

Two months following the gathering of the POS and AC measures, supervisors rated their subordinates' extra-role performance using Williams and Anderson's (1991) 13-item extra-role behavior measure. Sample items include "Helps others with heavy workloads" and "Conserves and protects organizational property." Supervisors responded to each item using a 5-point response scale ($1 = does\ not\ meet\ expectations$ to $5 = significantly\ exceeds\ expectations$).

Subordinates' Extra Hours Worked

We assessed the hours worked beyond what subordinates were contracted to work. Specifically, participants reported the number of hours they were under contract to work each week and the number of hours that they typically worked per week. We calculated extra hours by subtracting the number of contracted hours from the number of typical hours worked each week.

Control Variables

The focus of the present study was to examine supervisor-level mechanisms (supervisor affective commitment and in-role performance) through which supervisor POS would lead to behavioral dedication from subordinates (e.g., in-role and extra-role performance as well as extra hours worked). We were focused on behavioral outcomes rather than subordinate attitudes. However, we recognize that, consistent with Shanock and Eisenberger (2006) supervisors who feel supported would also likely have subordinates with higher POS, and thus we control for subordinate

POS in our model. Supervisor POS did have a positive relationship with subordinate POS although not significant ($B = .15$, n.s.). Controlling for subordinate POS did not affect the strength or significance of any of the relationships in our model.

We also considered organizational tenure, gender, and age of supervisors and subordinates as potential demographic control variables that may influence POS, performance, or both variables (Spector and Brannick 2011). First, with regard to organizational tenure, employees who are dissatisfied with the organization or are not performing well would be more likely to quit the organization or be fired (Rhoades and Eisenberger 2002). Consequently, those employees who remain (i.e., longer tenured employees) may have more favorable views of the organization (i.e., have higher POS) or have higher performance. In terms of gender, previous research has argued that women feel more strongly than men that they need to reciprocate favorable treatment, thus affecting POS and its outcomes (Kurtessis et al. 2015). In addition, evidence suggests that older workers generally have more positive perceptions of their employer and thus are less likely to focus on specific organizational factors that may contribute to POS (Kurtessis et al. 2015). We also considered region (Americas vs. Europe or Asia) to control for potential cultural differences in how supervisors appraise performance (Peretz and Fried 2012).

None of these variables were statistically significantly correlated with our focal variables (neither at the subordinate level nor at the supervisor level) except for one statistically significant negative relationship between subordinate tenure in the organization and subordinate in-role performance. Thus, the control variables had essentially no relationship with our focal variables of interest and for the sake of parsimony we did not include any of the potential control variables in the test of our full path model.

Results

Descriptive Statistics and Correlations

Descriptive statistics, bivariate correlations for supervisor and subordinate level variables, and reliability coefficients are reported in Tables 1 and 2. Table 1 shows variables that were reported at the supervisor level (Level 2), and Table 2 shows variables that were reported at the subordinate level (Level 1). Consistent with our hypotheses, the correlation between supervisors' perceptions of organizational support and their affective commitment was positive and significant, as was the correlation between supervisors' affective commitment and in-role performance. Please note we did not report demographic variables for supervisors

Table 1 Means, SD, alpha reliabilities, and intercorrelations among the Level 2 variables

Variable	M	SD	1	2	3
1. Supervisor POS	3.62	.69	(.90)		
2. Supervisor AC	3.83	.84	.56*	(.92)	
3. Supervisor in-role performance	4.52	.44	.26	.38*	(.83)

$N = 47$ for supervisor POS and AC; $N = 22$ for supervisor in-role performance. Alpha reliabilities are reported on the diagonal

* $p < .05$

POS perceived organizational support, AC affective commitment

because there were approximately 50 % missing data for those variables (tenure, age, gender), and thus, the sample size would be quite small (around 25) for such correlations.

The relationships between Level 1 variables (subordinate level variables) were all positive (see Table 2). The relationships between our potential control variables and the outcomes of extra hours worked, extra-role performance, and in-role performance were not statistically significant. Although our focus was on the novel contribution regarding the relationship between supervisor affective commitment and subordinate dedication variables, we would like to note that our subordinate dedication variables were positively related—the relationships between extra hours worked, extra-role performance, and in-role performance were positive and statistically significant.

Finally, the intraclass correlations (ICC[1]) for the variables reported by subordinates indicate that these variables have meaningful between-group variance (supervisor level variance), which is a necessary prerequisite to testing multilevel models given that cross-level effects do not exist. Rather, what have been termed "cross-level main effects" are really relationships between Level 2 variables and the between-group portion of the variance in Level 1 variables (LoPilato and Vandenberg 2014). The ICC[1]s for subordinate in-role performance, subordinate extra-role performance, and extra hours worked by subordinates were 17, 35, and 21 %, respectively. This means that quite a bit of the variance in these variables is between-group variance, that is, variance that is available to be potentially explained by Level 2 variables.

Test of Hypothesized Model

To test our hypothesized model, we used multilevel path modeling as outlined by Preacher and colleagues (Preacher et al. 2010, 2011). This approach is ideal for testing mediation models in which data are multilevel or nested, as is the case in the current research (i.e., subordinates are nested within supervisors). Multilevel path modeling is superior to traditional methods of testing mediation (e.g., Baron and Kenny 1986; MacKinnon et al. 2002) because,

Table 2 Means, SD, alpha reliabilities, and intercorrelations among the Level 1 variables

Variable	M	SD	ICC(1)	1	2	3
1. Subordinate in-role performance	4.24	.65	.17	(.93)		
2. Subordinate extra-role performance	4.44	.44	.35	.62*	(.88)	
3. Subordinate extra hours worked	6.34	5.65	.21	.008	−.07	N/A

$N = 139$ for extra hours worked; $N = 90$ in-role and extra-role performance. Alpha reliabilities are reported on the diagonal

* $p < .05$

unlike traditional mediation analysis, it accommodates nested or multilevel data by partitioning *variance* for each Level 1 variable into Level 1 (within-group) and Level 2 (between-group) components. Therefore, it does not violate the assumption of independent observations and allows an assessment of the relationship between Level 2 variables and the between-group variance of the Level 1 variables.

We conducted hierarchical linear path modeling using Mplus version 6 (Muthén and Muthén 2011) to test our hypotheses. As shown in Fig. 2, all hypothesized relationships except for one were significant in the expected direction, despite our small sample size. Standard indices of model fit are not reported because the multilevel nature of the data with random slopes (slopes allowed to vary across groups of subordinate–supervisor clusters) does not result in a single covariance matrix (neither actual nor estimated covariance matrix) for which fit can be assessed. Supervisor POS was significantly positively related to the

potential mediator, supervisor affective commitment (pseudo $r^2 = .31$), supporting Hypothesis 1.

In addition, we tested whether or not supervisor affective commitment mediated the relationship between supervisor POS and supervisor in-role performance (Hypothesis 2). First, although we recognize that our sample size was small, we found that the mediator, supervisor affective commitment, was significantly positively related to the outcome variable, supervisor in-role performance (pseudo $r^2 = .16$). Bootstrapping is not available in Mplus for multilevel modeling because of the random nature of the slopes—slopes vary across groups. However, we used the z prime (z') method for assessing mediation (MacKinnon et al. 2002). The z' method addresses a problem with the more traditional Sobel test by adjusting the critical value of statistical significance for the indirect effect to account for the non-normal distribution of indirect effects. MacKinnon et al.'s z' statistic corrects the critical value of
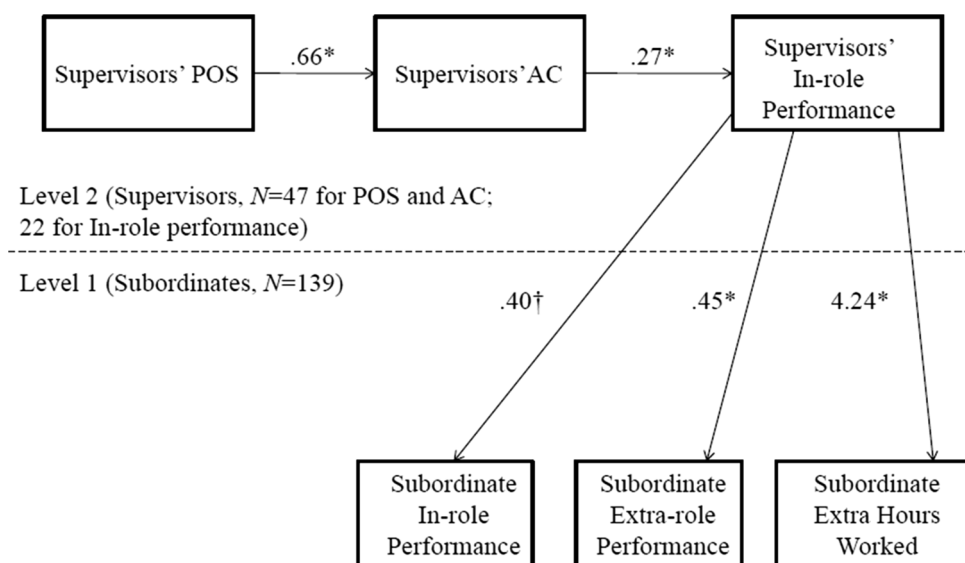
Fig. 2 Results of hypothesized model. *$p < .05$; †$p = .05$. *POS* perceived organizational support, *AC* affective commitment. Unstandardized coefficients are shown. Average cluster size is 3 subordinates per supervisor. Subordinate POS was controlled for in the model. Data sources: (1) subordinate in-role performance ratings were provided by the supervisors 2 months after the supervisors filled out a survey regarding their own AC; (2) extra hours worked data were provided by the subordinates; (3) supervisor in-role performance was rated by the boss of each supervisor. We recognize that the cross-level relationships depicted here represent relationships between supervisors' AC and between-group (shared group) variance in the Level 1 outcome variables (see LoPilato and Vandenberg 2014 for more details)

statistical significance from 1.96 to .97. Using the z' method, as Hypothesis 2 predicts, supervisor affective commitment mediated the relationship between supervisor POS and supervisor's boss ratings of in-role performance (indirect effect = .17, $z' = 2.41$, $p < .05$).

Turning now to the trickle-down relationships of supervisor in-role performance with subordinate dedication variables, we found a positive relationship between the supervisors' in-role performance and the subordinates' in-role performance, consistent with Hypothesis 3; however, it was not significant ($p = .05$). The pseudo r^2 value of .023 means that supervisors' in-role performance explained 2.3 % of the between-group variance in their subordinates' in-role performance. Also, as predicted by Hypothesis 3, supervisors' in-role performance had a positive relationship with subordinates' extra-role performance. The pseudo r^2 value of .36 means that supervisors' in-role performance explained 36 % of the between-group variance in their subordinates' extra-role performance. In further support of Hypothesis 3, we found a positive relationship between the supervisors' in-role performance and the subordinates' extra hours worked. The pseudo r^2 value of .69 means that supervisors' in-role performance explained 69 % of the between-group variance in their subordinates' extra hours worked. Also as predicted (Hypothesis 4), supervisor in-role performance mediated the relationship between supervisor affective commitment and supervisor rated subordinate in-role performance (indirect effect = .10, $z' = 1.59$, $p < .05$), subordinate extra-role performance (indirect effect = .12, $z' = 1.95$, $p < .05$), and subordinate extra hours worked (indirect effect = 1.10, $z' = 2.10$, $p < .05$).

We also tested an alternative model in which direct paths of supervisor POS to supervisor in-role performance as well as to subordinate AC, in-role performance, and extra hours worked were specified (partial mediation model). None of these direct paths were statistically significant; therefore, there is no evidence of partial mediation.

Discussion

We examined how supervisor in-role performance can serve as a mechanism by which supervisor POS trickles down to relate to subordinate dedication. Our results indicate supervisors' in-role performance may serve as a behavioral mechanism by which supervisor POS influences subordinate outcomes; in particular, subordinate dedication (e.g., extra-role performance and extra hours worked; in-role performance was not statistically significant) also increases. We also replicate previous findings of POS for the supervisors themselves (enhanced affective commitment and in-role performance). Supervisors who felt more supported by the organization were more affectively committed to the organization, which was, in turn, positively related to their bosses' ratings of their in-role performance.

Theoretical Implications and Future Research

The findings of our study help to advance organizational support theory and add to the small, yet growing literature on the trickle-down effect of supervisor attitudes. Previous research on the trickle-down effect has shown that supervisor attitudes, like POS, justice perceptions, and affective commitment trickle down to influence subordinate attitudes (e.g., Loi et al. 2012; Shanock and Eisenberger 2006; Wo et al. 2015). However, it remains unclear why the effect occurs. Shanock and Eisenberger's (2006) study provided the first attempt at identifying a mechanism; the authors suggested that supervisors who feel supported may support their subordinates, leading to enhanced subordinate performance. In addition, more recently, Wo et al. (2015) suggest that supervisor perceptions and attitudes, like POS, anger, and role model status, mediate the relationship between supervisor and subordinate perceptions of justice.

Our study extends the trickle-down literature by providing initial evidence that supervisor in-role performance might be a mechanism through which POS can influence subordinate outcomes. That is, supervisors who feel supported and are also highly committed to the organization want to help the organization achieve its goals, as social exchange theory would argue. As such, they will perform their duties better than a supervisor who does not feel supported and, in turn, may not be as affectively committed. As theorized, because it is likely part of their assigned duties, supervisors have a vested interest in developing and motivating subordinates and encouraging subordinate behaviors that further help the organization reach its goals (i.e., higher performance; e.g., Gentry and Sosik 2010). Future research should begin to explore other potential mediating mechanisms of the trickle-down effect. One example could be the mediating role of subordinate affective commitment to the organization; supervisors' performance (and, as a result, mentoring, support, and guidance for subordinates) may lead subordinates to become committed to the organization, which in turn would likely have positive implications for subordinate dedication.

While supervisors' own performance provides a mechanism through which supervisors' POS may influence subordinate dedication, future research should examine the degree to which their performance might depend on characteristics of the supervisor. For example, if the supervisor is highly socially skilled, he or she might be more effective

at mentoring behaviors and influencing subordinates to get on board with organizational strategy and change efforts, which might require extra dedication from subordinates. Thus, the relationship between supervisor in-role performance and subordinate dedication might be moderated by supervisor social skill.

In addition, we extend organizational support theory by focusing on POS and its implications for supervisors. It is important to consider supervisors as a group because of their unique position in the organization (i.e., carrying out tasks prescribed to them from above, while directing and evaluating employees below; Gentry and Shanock 2008; Wooldridge et al. 2008). While our results suggest the implications of POS (i.e., higher affective commitment and increased in-role performance) are similar in supervisors and non-managerial employees alike (i.e., Casimir et al. 2014; Rhoades et al. 2001), future studies might explore how the employees in the two positions differ in how they develop global beliefs about the organization. Supervisors may have experiences that are unique from their subordinates and thus may consider different aspects of treatment from the organization or weigh various aspects differently. Future research might also expand the range of outcomes further by focusing on not only outcomes for supervisors that have previously been studied in relation to organization support theory in non-managerial employee samples (e.g., turnover, helping behaviors, job satisfaction), but also outcomes more unique to the supervisor position. For example, supervisors can help carry out as well as help shape organizational strategy and innovation efforts.

Third, given the unique role of supervisors as compared to non-managerial employees and the importance of supervisors for the organization, future research should consider factors that will influence how supervisors behave in response to POS. For example, are there tensions between the expectations of the organization and expectations from subordinates that influence how supervisors evaluate the organization? Imagine an organization that expects that if they support their supervisors, the supervisors will be particularly tough and strict on subordinates so that high performance of subordinates is achieved. But the subordinates might not want harsh treatment; rather their expectation is for supportive supervisor treatment. Such a tension could have implications for the well-being and support perceptions of supervisors.

Practical Implications

In addition to advancing theory, the current study has implications for practice as well. As previously mentioned, supervisors play an important role within organizations (Gentry and Shanock 2008). Our study suggests that supervisors who feel supported by the organization and are affectively committed tend to work harder themselves and have more dedicated employees. Understanding the attitudes and behaviors of supervisors has the essential practical implication of helping organizations to carry out their goals effectively. Thus, organizations may reap benefits by focusing resources on fostering support of supervisors; not only do they work harder, but their hard work sets the tone for subordinates who perform not only their assigned duties, but also perform extra-role tasks to a greater extent, which is likely to include working longer hours. Our findings provide support for the notion that good professional development or leader development activities might be time and money well spent. If professional development can help develop the supervisors' skills at day-to-day supervision of those below them or development of mentoring skills, then both the supervisor and subordinates should benefit. In addition, from an organizational support theory perspective, supervisors will likely view the provision of professional development opportunities as a discretionary form of treatment. Consistent with organizational support theory, such discretionary treatment should positively influence supervisors' POS.

Regarding extra hours worked, we considered this variable to fit within the broad definition of subordinate dedication as defined in this paper. This conceptualization of extra hours worked as a form of dedication is consistent with Van Scotter and Motowidlo (1996) who include extra hours as an indicator of employee dedication. A practical implication of this is that organizations might consider including extra hours worked as a more objective measure of extra-role performance. Supervisor ratings can often be influenced by liking and other rating biases (Spence and Keeping 2011; Wayne and Liden 1995), thus including a question about extra hours worked might be a good addition to assessing extra-role performance.

However, while it is presumably beneficial to the organization to have a workforce that is working longer hours than they are getting paid to, there is a popular opinion that working longer hours leads to decreased well-being and increased work–family conflict (e.g., Spector et al. 2004). Our purpose is not to make an evaluation of whether working extra hours is good or bad for the employee. Nonetheless, future research should focus on the implications of working extra hours, especially in conjunction with positive job attitudes, like POS and affective commitment. If employees *want* to work longer hours, whether it is because they observe their supervisors doing so or they are affectively committed themselves, at some point do they experience negative outcomes like decreased well-being and increased burnout? Is there a tipping point at which working longer hours is no longer rewarding and leads to negative outcomes? In addition, what about employees' experiences at work would make the consequences of working longer hours positive or negative?

Limitations

Despite making a number of theoretical and practical contributions, this study has some limitations that should be kept in mind when discussing findings. Although our data were obtained from three different sources (supervisor, supervisor's boss, and subordinates), four of the variables were rated by the same source; supervisors rated their own POS and affective commitment as well as their subordinates' in-role and extra-role performance. However, common method bias should be of little concern in this instance because the referent was different for the supervisor variables (POS and AC) than for the subordinate variables (in-role and extra-role performance) (Podsakoff et al. 2003). Additionally, the two performance measures were rated by the supervisors and measured at a later time point than the self-report variables (i.e., supervisors' POS and affective commitment). We also included a subordinate self-reported indicator of dedication (extra hours worked) and controlled for subordinate POS.

As well, it is important to note that our design does not allow us to make claims of causality. Theoretically, supervisor POS should lead to enhanced supervisor affective commitment and not the reverse. This is consistent with longitudinal empirical evidence by Rhoades et al. (2001) who, using a cross-lag panel design, found that POS is related to changes in affective commitment over time, but not the reverse. Moreover, the separation in time between supervisor affective commitment and their boss's ratings of their performance (2 months apart) as well as the separation in time between supervisor attitudes (POS and affective commitment) and their subordinates' performance (2 months apart) helps provide stronger support for mediation than if all variables were assessed at the same time and by the same source (Mathieu et al. 2008).

Another limitation might be the small sample size for performance measures for both supervisors and subordinates. We conducted a post hoc power analysis and found limited power particularly to detect small effect sizes, given our small sample size. Despite the small sample size and low power, we were able to find significant relationships for all but one relationship in our model. Presumably due to low power, we did not find support for the portion of Hypothesis 3 regarding the relationship between supervisor in-role performance and subordinate in-role performance, which had a p value of $p = .05$. Also, despite the practical challenge of gaining access to an organization to collect data from multiple sources, we collected self-reported attitude data from supervisors (POS and affective commitment) and subordinates (extra hours worked) and performance ratings of both subordinates and supervisors from two different sources. We also separated the data collection of self-reported measures from in-role and extra-role

performance by two months and then appropriately match all the sources together. Thus, it is not surprising that for some of the relationships the sample size gets rather small.

Finally, the Williams and Anderson (1991) measure of in-role performance is designed to assess in-role performance broadly and across a number of jobs. We argue that behaviors such as developing, mentoring, and engaging subordinates are part of a supervisor's in-role performance and thus should be captured by the measure. However, a more nuanced scale that asks about supervisor performance with regard to specific behaviors, such as those described above, may help to advance the literature on organizational support theory and the trickle-down effect further.

Conclusion

This study advances organizational support theory by proposing an explanatory mechanism for the previously found relationship between supervisors' POS and subordinate in-role performance and extra-role behaviors (Shanock and Eisenberger 2006). Therefore, organizations will likely benefit if they invest in providing support to supervisors; the reach of such efforts can extend beyond beneficial outcomes for supervisors (i.e., it can enhance supervisors' commitment and task performance) to potentially trickle down to affect the dedication of the employees who report to them. Enhanced supervisor performance and subordinate dedication should be quite beneficial to help the organization remain successful, achieve its goals, and maintain a healthy bottom-line.

References

Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice-Hall.

Baran, B. E., Shanock, L. R., & Miller, L. R. (2012). Advancing organizational support theory into the twenty-first century world of work. *Journal of Business and Psychology, 27*, 123–147. doi:10.1007/s10869-011-9236-3.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173–1182. doi:10.1037//0022-3514.51.6.1173.

Bateman, T. S., Snell, S. A., & Konopaske, R. (2017). *Management: Leading & collaborating in a competitive world* (12th ed.). New York, NY: McGraw-Hill Education.

Blau, P. M. (1964). *Exchange and power in social life*. New York: Wiley.

Casimir, G., Ngee Keith Ng, Y., Yuan Wang, K., & Ooi, G. (2014). The relationships amongst leader-member exchange, perceived organizational support, affective commitment, and in-role performance: A social-exchange perspective. *Leadership and Organization Development Journal, 35*, 366–385. doi:10.1108/LODJ-04-2012-0054.

Donsbach, J. S., & Shanock, L. R. (2008). Relationships between supervisor turnover intention and subordinate perceived organizational support and positive mood. *Psychologica Belgica, 48*, 243–259. doi:10.5334/pb-48-2-3-243.

Eisenberger, R., Armeli, S., Rexwinkel, B., Lynch, P. D., & Rhoades, L. (2001). Reciprocation of perceived organizational support. *Journal of Applied Psychology, 86*, 42–51. doi:10.1037//0021-9010.86.1.42.

Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology, 71*, 500–507. doi:10.1037//0021-9010.71.3.500.

Eisenberger, R., Karagonlar, G., Stinglhamber, F., Neves, P., Becker, T. E., Gonzalez-Morales, M. G., et al. (2010). Leader-member exchange and affective organizational commitment: The contribution of supervisor's organizational embodiment. *Journal of Applied Psychology, 95*, 1085–1103. doi:10.1037/a0020858.

Eisenberger, R., & Stinglhamber, F. (2011). *Perceived organizational support: Fostering enthusiastic and productive employees.* Washington, DC: American Psychological Association.

Eisenberger, R., Stinglhamber, F., Vandenberghe, C., Sucharski, I. L., & Rhoades, L. (2002). Perceived supervisor support: Contributions to perceived organizational support and employee retention. *Journal of Applied Psychology, 87*, 565–573. doi:10.1037/0021-9010.87.3.565.

Erdogan, B., & Enders, J. (2007). Support from the top: Supervisors' perceived organizational support as a moderator of leader-member exchange to satisfaction and performance relationships. *Journal of Applied Psychology, 92*, 321. doi:10.1037/0021-9010.92.2.231.

Gentry, W. A., & Shanock, L. R. (2008). Views of managerial derailment from above and below: The importance of a good relationship with upper management and putting people at ease. *Journal of Applied Social Psychology, 38*, 2469–2494.

Gentry, W. A., & Sosik, J. J. (2010). Developmental relationships and managerial promotability in organizations: A multisource study. *Journal of Vocational Behavior, 77*, 266–278. doi:10.1016/j.jvb.2010.04.010.

Gill, A. S., & Mathur, N. (2007). Improving employee dedication and pro-social behavior. *International Journal of Contemporary Hospitality Management, 19*, 328–334. doi:10.1108/09596110710747661.

Guerrero, S., & Herrbach, O. (2009). Manager organizational commitment: A question of support or image? *International Journal of Human Resource Management, 20*, 1536–1553. doi:10.1080/09585190902983496.

Kurtessis, J. N., Eisenberger, R., Ford, M. T., Buffardi, L. C., Stewart, K. A., & Adis, C. S. (2015). Perceived organizational support: A meta-analytic evaluation of organizational support theory. *Journal of Management.* doi:10.1177/0149206315575554.

Kuvaas, B., Dysbak, A., & Buch, R. (2014). Antecedens and employee outcomes of line managers' perceptions of enabling HR practices. *Journal of Management Studies, 51*, 845–868. doi:10.1111/joms.12085.

Liu, C., Liu, Y., Mills, M. J., & Fan, J. (2013). Job stressors, job performance, job dedication, and the moderating effect of conscientiousness: A mixed-method approach. *International Journal of Stress Management, 20*, 336–363. doi:10.1037/a0034841.

Loi, R., Lai, J., & Lam, L. W. (2012). Working under a committed boss: A test of the relationship between supervisors' and subordinates' affective commitment. *The Leadership Quarterly, 23*, 466–475. doi:10.1016/j.leaqua.2011.12.001.

LoPilato, A. C., & Vandenberg, R. J. (2014). The not-so-direct cross-level direct effect. In C. E. Lance & R. J. Vandenberg (Eds.), *More statistical and methodological myths and urban legends* (pp. 292–308). New York, NY: Taylor & Francis.

MacKinnon, D. P., Lockwood, C. M., Hoffman, J. M., West, S. G., & Sheets, V. (2002). A comparison of methods to test mediation and other intervening variable effects. *Psychological Methods, 7*, 83–104. doi:10.1037//1082-989X.7.1.83.

Marique, G., Stinglhamber, F., Desmette, D., Caesens, G., & De Zanet, F. (2012). The relationship between perceived organizational support and affective commitment: A social identity perspective. *Group and Organization Management, 38*, 68–100. doi:10.1177/1059601112457200.

Masterson, S. S. (2001). A trickle-down model of organizational justice: Relating employees' and customers' perceptions of and reactions to fairness. *Journal of Applied Psychology, 86*, 594–604. doi:10.1037/0021-9010.86.4.594.

Mathieu, J. E., DeShon, R. P., & Bergh, D. D. (2008). Mediational inferences in organizational research: Then, now, and beyond. *Organizational Research Methods, 11*, 203–223. doi:10.1177/1094428107310089.

Meyer, J. P., & Allen, N. J. (1997). *Commitment in the workplace: Theory, research, and application.* Thousand Oaks, CA: Sage Publications Inc.

Meyer, J. P., Stanley, D. J., Herscovitch, S. L., & Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behavior, 61*, 20–52. doi:10.1006/jvbe.2001.1842.

Muthén, L. K., & Muthén, B. O. (2011). *Mplus user's guide: Statistical analysis with latent variables* (6th ed.). Los Angeles, CA: Author.

Paustian-Underdahl, S. C., Shanock, L. R., Rogelberg, S. G., Scott, C. W., Justice, L., & Altman, D. G. (2013). Building a business case for developing supportive supervisors. *Journal of Occupational and Organizational Psychology, 86*, 324–330. doi:10.1111/joop.12026.

Peretz, H., & Fried, Y. (2012). National cultures, performance appraisal practices, and organizational absenteeism and turnover: A study across 21 countries. *Journal of Applied Psychology, 97*(2), 448–459.

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*, 879–903. doi:10.1037/0021-9010.88.5.879.

Preacher, K. J., Zhang, Z., & Zyphur, M. J. (2011). Alternative methods for assessing mediation in multilevel data: The advantages of multilevel SEM. *Structural Equation Modeling, 18*, 161–182. doi:10.1080/10705511.2011.557329.

Preacher, K. J., Zyphur, M. J., & Zhang, Z. (2010). A general multilevel SEM framework for assessing multilevel mediation. *Psychological Methods, 15*, 209–233. doi:10.1037/a0020141.

Rhoades, L., & Eisenberger, R. (2002). Perceived organizational support: A review of the literature. *Journal of Applied Psychology, 87*, 698–714. doi:10.1037//0021-9010.87.4.698.

Rhoades, L., Eisenberger, R., & Armeli, S. (2001). Affective commitment to the organization: The contribution to perceived organizational support. *Journal of Applied Psychology, 86*, 825–836. doi:10.1037//0021-9010.86.5.825.

Settoon, R. P., Bennett, N., & Liden, R. C. (1996). Social exchange in organizations: Perceived organizational support, leader–member exchange, and employee reciprocity. *Journal of Applied Psychology, 81*, 219–227. doi:10.1037//0021-9010.81.3.219.

Shanock, L. R., & Eisenberger, R. (2006). When supervisors feel supported: Relationships with subordinates' perceived supervisor support, perceived organizational support, and performance. *Journal of Applied Psychology, 91*, 689–695. doi:10.1037/0021-9010.91.3.689.

Shore, L. M., & Wayne, S. J. (1993). Commitment and employee behavior: Comparison of affective commitment and continuance commitment with perceived organizational support. *Journal of Applied Psychology, 78*(5), 774–780.

Spector, P. E., & Brannick, M. T. (2011). Methodological urban legends: The misuse of statistical control variables. *Organizational Research Methods, 14*(2), 287–305.

Spector, P. E., Cooper, C. L., Poelmans, S., Allen, T. D., O'Driscoll, M., Sanchez, J. I., et al. (2004). A cross-national comparative study of work-family stressors, working hours, and well-being: China and Latin America versus the Anglo world. *Personnel Psychology, 57*, 119–142. doi:10.1111/j.1744-6570.2004.tb02486x.

Spence, J. R., & Keeping, L. (2011). Conscious rating distortion in performance appraisal: A review, commentary, and proposed framework for research. *Human Resource Management Review, 21*(2), 85–95. doi:10.1016/j.hrmr.2010.09.013.

Tepper, B. J., & Taylor, E. C. (2003). Relationships among supervisors' and subordinates' procedural justice perceptions and organizational citizenship behaviors. *Academy of Management Journal, 46*, 97–105. doi:10.2307/30040679.

Van Scotter, J. R., & Motowidlo, S. J. (1996). Interpersonal facilitation and job dedication as separate facets of contextual performance. *Journal of Applied Psychology, 81*, 525–531. doi:10.1037/0021-9010.81.5.525.

Wayne, S. J., & Liden, R. C. (1995). Effects of impression management on performance ratings: A longitudinal study. *Academy of Management Journal, 38*, 232–260. doi:10.2307/256734.

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*, 82–111. doi:10.2307/257021.

Williams, L. J., & Anderson, S. E. (1991). Job satisfaction and organizational commitment as predictors of organizational citizenship and in-role behaviors. *Journal of Management, 17*, 601. doi:10.1177/014920639101700305.

Wo, D., Ambrose, M., & Schminke, M. (2015). What drives trickle-down effects? A test of multiple mediation processes. *Academy of Management Journal, 58*(6), 1848–1868.

Wooldridge, B., Schmid, T., & Floyd, S. W. (2008). The middle management perspective on strategy process: Contributions, synthesis, and future research. *Journal of Management,*. doi:10.1177/0149206308324326.

Yukl, G. (2002). *Leadership in organizations*. Upper Saddle River, NJ: Prentice-Hall Inc.