

Perceived Organizational Support: A Review of the Literature

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The authors reviewed more than 70 studies concerning employees' general belief that their work organization values their contribution and cares about their well-being (perceived organizational support; POS). A meta-analysis indicated that 3 major categories of beneficial treatment received by employees (i.e., fairness, supervisor support, and organizational rewards and favorable job conditions) were associated with POS. POS, in turn, was related to outcomes favorable to employees (e.g., job satisfaction, positive mood) and the organization (e.g., affective commitment, performance, and lessened withdrawal behavior). These relationships depended on processes assumed by organizational support theory: employees' belief that the organization's actions were discretionary, feeling of obligation to aid the organization, fulfillment of socioemotional needs, and performance-reward expectancies.

To whom much is given, much will be required.

—Luke 12:48 (New King James Version)

Employers commonly value employee dedication and loyalty. Employees who are emotionally committed to the organization show heightened performance, reduced absenteeism, and a lessened likelihood of quitting their job (Mathieu & Zajac, 1990; Meyer & Allen, 1997; Mowday, Porter, & Steers, 1982). By contrast, employees are generally more concerned with the organization's commitment to them. Being valued by the organization can yield such benefits as approval and respect, pay and promotion, and access to information and other forms of aid needed to better carry out one's job. The norm of reciprocity allows employees and employers to reconcile these distinctive orientations.

Social exchange theorists have alluded to employment as the trade of effort and loyalty for tangible benefits and social rewards (e.g., Bateman & Organ, 1983; Brief & Motowidlo, 1986; Etzioni, 1961; Gould, 1979; Levinson, 1965; March & Simon, 1958; Mowday et al., 1982; Organ & Konovsky, 1989; Steers, 1977). When one person treats another well, the reciprocity norm obliges the return of favorable treatment (Gouldner, 1960). To the extent that both the employee and the employer apply the reciprocity norm to their relationship, favorable treatment received by either party is reciprocated, leading to beneficial outcomes for both.

Organizational support theory (Eisenberger, Huntington, Hutchison, & Sowa, 1986; Shore & Shore, 1995) supposes that to determine the organization's readiness to reward increased work effort and to meet socioemotional needs, employees develop global beliefs concerning the extent to which the organization values their contributions and cares about their well-being. Perceived organizational support (POS) is also valued as assurance that aid will be available from the organization when it is needed to carry out one's job effectively and to deal with stressful situa-

tions (cf. George, Reed, Ballard, Colin, & Fielding, 1993). More than 70 empirical studies have focused on POS; however, the literature has not been systematically reviewed. In this article we examine the theoretical framework guiding research on POS, consider studies of POS's hypothesized antecedents and consequences, and evaluate evidence on the processes assumed to underlie these associations.

Organizational Support Theory

According to organizational support theory, the development of POS is encouraged by employees' tendency to assign the organization humanlike characteristics (Eisenberger et al., 1986). Levinson (1965) noted that actions taken by agents of the organization are often viewed as indications of the organization's intent rather than attributed solely to the agents' personal motives. This personification of the organization, suggested Levinson, is abetted by the organization's legal, moral, and financial responsibility for the actions of its agents; by organizational policies, norms, and culture that provide continuity and prescribe role behaviors; and by the power the organization's agents exert over individual employees. On the basis of the organization's personification, employees view their favorable or unfavorable treatment as an indication that the organization favors or disfavors them.

Social exchange theorists argue that resources received from others are more highly valued if they are based on discretionary choice rather than circumstances beyond the donor's control. Such voluntary aid is welcomed as an indication that the donor genuinely values and respects the recipient (e.g., Blau, 1964; Cotterell, Eisenberger, & Speicher, 1992; Eisenberger, Cotterell, & Marvel, 1987; Gouldner, 1960). Thus, organizational rewards and favorable job conditions such as pay, promotions, job enrichment, and influence over organizational policies contribute more to POS if the employee believes that they result from the organization's voluntary actions, as opposed to external constraints such as union negotiations or governmental health and safety regulations (cf. Eisenberger et al., 1986; Eisenberger, Cummings, Armeli, & Lynch, 1997; Shore & Shore, 1995). Because supervisors act as organizational agents, the employee's receipt of favorable treatment from a supervisor should contribute to POS. The strength of

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this relationship depends on the degree to which employees identify the supervisor with the organization, as opposed to viewing the supervisor's actions as idiosyncratic (Eisenberger, Stinglhamber, Vandenberghe, Sucharski, & Rhoades, in press).

Organizational support theory also addresses the psychological processes underlying consequences of POS. First, on the basis of the reciprocity norm, POS should produce a felt obligation to care about the organization's welfare and to help the organization reach its objectives. Second, the caring, approval, and respect connoted by POS should fulfill socioemotional needs, leading workers to incorporate organizational membership and role status into their social identity. Third, POS should strengthen employees' beliefs that the organization recognizes and rewards increased performance (i.e., performance-reward expectancies). These processes should have favorable outcomes both for employees (e.g., increased job satisfaction and heightened positive mood) and for the organization (e.g., increased affective commitment and performance, reduced turnover).

An appealing feature of organizational support theory is that it provides clear, readily testable predictions regarding antecedents and outcomes of POS along with specificity of assumed processes and ease of testing these processes empirically. We examine studies that consider POS's hypothesized antecedents and consequences and more elaborated studies of the mechanisms presumed to underlie these relationships.

Perceived Support's Dimensionality and Discriminant Validity

Consistent with the view that employees form a general belief regarding the organization's commitment to them, Eisenberger et al. (1986) reported that employees showed a consistent pattern of agreement with statements concerning whether the organization appreciated their contributions and would treat them favorably or unfavorably in differing circumstances. Subsequent exploratory and confirmatory factor analyses with employees from diverse occupations and organizations provide evidence for the high internal reliability and unidimensionality of Eisenberger et al.'s scale (Survey of Perceived Organizational Support; SPOS), both in its original, 36-item form and subsequent, shorter versions (e.g., Armeli, Eisenberger, Fasolo, & Lynch, 1998; Eisenberger, Fasolo, & Davis-LaMastro, 1990; Lynch, Eisenberger, & Armeli, 1999; Shore & Tetrick, 1991; Shore & Wayne, 1993). Employees evidently believe that the organization has a general positive or negative orientation toward them that encompasses both their contributions and their welfare.

POS has been found to be related to, yet distinct from, affective organizational commitment (Eisenberger et al., 1990; Settoon, Bennett, & Liden, 1996; Rhoades, Eisenberger, & Armeli, 2001; Shore & Tetrick, 1991), effort-reward expectancies (Eisenberger et al., 1990), continuance commitment (Shore & Tetrick, 1991), leader-member exchange (Settoon et al., 1996; Wayne, Shore, & Liden, 1997), supervisor support (Kottke & Sharafinski, 1988; Malatesta, 1995; Shore & Tetrick, 1991), perceived organizational politics (Andrews & Kacmar, 2001; Cropanzano, Howes, Grandey, & Toth, 1997; M. L. Randall, Cropanzano, Bormann, & Birjulin, 1999), procedural justice (Andrews & Kacmar, 2001; Rhoades et al., 2001), and job satisfaction (Aquino & Griffeth, 1999; Eisenberger et al., 1997; Shore & Tetrick, 1991). In sum,

POS is a distinctive construct that the SPOS measures with high reliability.

The majority of studies on POS use a short form developed from the 17 highest loading items in the SPOS (Eisenberger et al., 1986). However, for practical reasons, many studies use fewer items. Because the original scale is unidimensional and has high internal reliability, the use of shorter versions does not appear problematic. Prudence nevertheless suggests that both facets of the definition of POS (valuation of employees' contribution and care about employees' well-being) be represented in short versions of the questionnaire.

Antecedents and Consequences of Perceived Organizational Support

We used meta-analysis to aggregate findings concerning proposed antecedents and consequences of POS. The classification system was based, wherever possible, on categories generally used in the research literature. First, we extracted hypothesized antecedents and consequences from approximately one third of the POS studies and established a preliminary set of categories. We then reviewed the remaining studies and made adjustments to the categories through discussion. We describe these categories, discuss their theorized relationships with POS, delineate the meta-analytic procedures, and then present our findings. After correcting effect sizes for sampling error and measurement error, we used path analysis to compare the relative strengths of the relationships between POS and the major organizational experience variables thought to contribute to POS. More sophisticated research designs, involving assessments of processes, provided too few studies for meta-analytic review and path analysis. Therefore, we review the latter studies separately.

Antecedents of Perceived Organizational Support

On the basis of organizational support theory (Eisenberger et al., 1986), three general forms of perceived favorable treatment received from the organization (i.e., fairness, supervisor support, and organizational rewards and job conditions) should increase POS. To avoid repetitiveness, we frequently omit use of the term *perceived* when discussing the perceptions of favorable treatment that contribute to POS. Although most studies have assessed the relationship of the employees' perceptions of favorable treatment and POS, a few of the studies we review have examined the relationship between personality and POS. We also consider demographic variables as possible third-variable explanations of relationships between antecedents and POS.

Fairness

Procedural justice concerns the fairness of the ways used to determine the distribution of resources among employees (Greenberg, 1990). Shore and Shore (1995) suggested that repeated instances of fairness in decisions concerning resource distribution should have a strong cumulative effect on POS by indicating a concern for employees' welfare. Cropanzano and Greenberg (1997) distinguished between structural and social aspects of procedural justice. Structural determinants involve formal rules and policies concerning decisions that affect employees, including

adequate notice before decisions are implemented, receipt of accurate information, and voice (i.e., employee input in the decision process). Social aspects of procedural justice, sometimes called interactional justice, involve the quality of interpersonal treatment in resource allocation. Social aspects include treating employees with dignity and respect and providing employees with information concerning how outcomes are determined.

In the meta-analysis that follows, we assess the relationship between the overall category of procedural justice and POS. Many studies reported only a conglomerate measure of procedural justice, involving more than one component. However, there were enough studies in which voice, a structural component, and interactional justice were specifically reported to allow their separation in the meta-analysis.

Related to procedural justice is the concept of perceived organizational politics, referring to attempts to influence others in ways that promote self-interest, often at the expense of rewards for individual merit or the betterment of the organization (Cropanzano et al., 1997; Kacmar & Carlson, 1997; Nye & Witt, 1993; M. L. Randall et al., 1999). The Perceptions of Politics Scale (Ferris & Kacmar, 1992) considers views concerning the prevalence of three types of self-oriented political behavior: obtaining valued outcomes by acting in a self-serving manner, going along with ill-advised management decisions to secure valued outcomes, and obtaining pay increases and promotions through favoritism rather than merit (Kacmar & Carlson, 1997). We expect widespread organizational politics to strongly conflict with perceptions of fair procedures and outcomes (cf. M. L. Randall et al., 1999), thereby lowering POS. We place procedural justice and organizational politics into the same general category, fair treatment, while recognizing that these related constructs can be distinguished conceptually and empirically (Andrews & Kacmar, 2001). Our meta-analysis reports findings both for overall fair treatment and for the separate categories of procedural justice and organizational politics.

Supervisor Support

Just as employees form global perceptions concerning their valuation by the organization, they develop general views concerning the degree to which supervisors value their contributions and care about their well-being (i.e., perceived supervisor support; Kottke & Sharafinski, 1988). Because supervisors act as agents of the organization, having responsibility for directing and evaluating subordinates' performance, employees view their supervisor's favorable or unfavorable orientation toward them as indicative of the organization's support (Eisenberger et al., 1986; Levinson, 1965). Additionally, employees understand that supervisors' evaluations of subordinates are often conveyed to upper management, further contributing to employees' association of supervisor support with POS. Researchers have most often measured supervisor support by substituting the word *supervisor* for *organization* in the SPOS (e.g., "My supervisor really cares about my well-being"; Kottke & Sharafinski, 1988; Malatesta, 1995; Rhoades et al., 2001; Shore & Tetrick, 1991; Yoon, Han, & Seo, 1996; Yoon & Lim, 1999). Support from supervisors has also been assessed with related measures involving leader-member exchange (Hofmann & Morgeson, 1999; Settoon et al., 1996; Wayne et al., 1997) and

supervisor consideration (M. W. Allen, 1995; Hutchison, 1997a; Hutchison, Valentino, & Kirkner, 1998).

Organizational Rewards and Job Conditions

Shore and Shore (1995) suggested that human resources practices showing recognition of employee contributions should be positively related to POS. A variety of rewards and job conditions have been studied in relation to POS—for example, recognition, pay, promotions, job security, autonomy, role stressors, and training.

Recognition, pay, and promotions. According to organizational support theory, favorable opportunities for rewards serve to communicate a positive valuation of employees' contributions and thus contribute to POS. In some studies, employees were asked to evaluate the fairness of their outcomes relative to a reference group (i.e., distributive justice; Greenberg, 1990). In other studies, in which employees were asked simply to evaluate the favorableness of outcomes without a specified reference group, they presumably made such comparisons implicitly. Therefore, we combined the results of studies examining the distributive justice and favorableness of outcomes. Enough studies were available to allow separate examination of pay and promotions.

Job security. Assurance that the organization wishes to maintain the employee's future membership is expected to provide a strong indication of POS, particularly in recent years, when downsizing has been prevalent (D. Allen, Shore, & Griffeth, 1999).

Autonomy. By *autonomy*, we mean employees' perceived control over how they carry out their job, including scheduling, work procedures, and task variety. Autonomy has traditionally been highly valued in Western culture (Geller, 1982; Hogan, 1975). By indicating the organization's trust in employees to decide wisely how they will carry out their job, high autonomy should increase POS (Eisenberger, Rhoades, & Cameron, 1999).

Role stressors. Stressors refer to environmental demands with which individuals feel unable to cope (Lazarus & Folkman, 1984). To the extent that employees attribute job-related stressors to conditions that are controllable by the organization, as opposed to conditions inherent in the job or resulting from outside pressures on the organization, stressors should reduce POS. Stressors related to three aspects of employees' role in the organization have been studied as antecedents to lessened POS: work overload, involving demands that exceed what an employee can reasonably accomplish in a given time; role ambiguity, involving the absence of clear information about one's job responsibilities; and role conflict, involving mutually incompatible job responsibilities. There were enough studies in which role ambiguity and role conflict were distinguished to allow their separation in the meta-analysis.

Training. Wayne et al. (1997) suggested that job training is a discretionary practice communicating an investment in the employee, thus leading to increased POS.

Organization size. Dekker and Barling (1995) argued that individuals feel less valued in large organizations, where highly formalized policies and procedures may reduce flexibility in dealing with employees' individual needs. Even though large organizations, as small ones, can show benevolence to groups of employees, the reduced flexibility for meeting the needs of individual employees, imparted by formal rules, could reduce POS. Although organizational size might be considered more an organizationwide

characteristic than a job characteristic, this category fits closely with job characteristics.

Relative Contributions of Fairness, Supervisor Support, and Organizational Rewards and Job Conditions

After we corrected the effect sizes of antecedent-POS relationships for sampling and measurement error, we used path analysis to assess the relative contributions to POS by the major kinds of organizational treatment. Shore and Shore (1995) maintained that the fairness of procedures that determine the amount and distribution of organizational resources should be a particularly important determinant of POS. Most organizations have considerable discretion and control concerning the fairness of policies that affect reward allocations. According to organizational support theory, such discretionary actions should make a major contribution to employees' assessment of the organization's benevolent or malevolent orientation toward them.

Favorable treatment received from supervisors should also make a major contribution to POS, although perhaps not as strong an effect as fair treatment. Because supervisors serve as agents of the organization, their favorable treatment of employees should contribute to POS. The identification of supervisors with the organization should be reduced to the extent that their informal status in the organization is low or their views and actions are perceived to be idiosyncratic (Eisenberger et al., in press).

Of the three major organizational determinants of POS, rewards and favorable job conditions are expected to have the weakest effect. Such treatment should contribute to POS only to the extent that it is perceived to represent the organization's voluntary, intentional actions (Eisenberger et al., 1997). Many rewards and favorable job conditions may commonly be attributed to external pressures on the organization rather than to discretionary choice. Examples include contractual obligations concerning pay and work rules, government health and safety regulations, and societal norms whose violation would bring adverse publicity.

Employee Characteristics

Personality. The major explications of organizational support theory (e.g., Eisenberger et al., 1986; Shore & Shore, 1995) have focused on actions by the organization that influence POS without considering dispositional variables. Dispositional tendencies to experience positive or negative affect, two related but distinct personality dimensions (Watson & Clark, 1984), might influence POS by altering whether employees interpret organizational treatment as benevolent or malevolent (Aquino & Griffith, 1999; Witt & Hellman, 1992).

Additionally, personality might influence POS by affecting employee behaviors and, consequently, treatment by the organization (Aquino & Griffith, 1999). Positive affectivity might lead to expansive and friendly behaviors, which would cause the employee to make a favorable impression on others and would result in more effective working relationships with coworkers and supervisors. Conversely, aggressive or withdrawal behaviors resulting from negative affectivity could inhibit the development of favorable working relationships, reducing POS.

Another personality dimension, conscientiousness, might lead to increased job performance, which, in turn, would lead to better

treatment by the organization and heightened POS. Conscientiousness, as defined by Costa and McCrae (1985), is composed of dependability, carefulness, thoroughness, responsibility, and perseverance. Although researchers have not explicitly discussed the possible relationship between conscientiousness and POS, the measures are included coincidentally in several studies.

Demographic characteristics. Demographic characteristics of employees are often used as control variables to rule out alternative explanations for the relationship between POS and hypothesized antecedents. These characteristics include age, education, gender, and tenure. For example, employees who are dissatisfied with the organization may be more likely than others to quit; longer tenured employees might thus have a more favorable view of various aspects of their treatment by the organization as well as high POS. In no studies we reviewed did the authors eliminate bivariate relationships involving POS by controlling for demographic variables. Nevertheless, we included demographic variables in our meta-analysis to indicate the extent of their relationship with POS and, therefore, their utility as control variables.

Consequences of Perceived Organizational Support *Organizational Commitment*

On the basis of the reciprocity norm, POS should create a felt obligation to care about the organization's welfare (Eisenberger, Armeli, Rexwinkel, Lynch, & Rhoades, 2001). The obligation to exchange caring for caring (Foa & Foa, 1980) should enhance employees' affective commitment to the personified organization. POS should also increase affective commitment by fulfilling such socioemotional needs as affiliation and emotional support (Armeli et al., 1998; Eisenberger et al., 1986). Such need fulfillment produces a strong sense of belonging to the organization, involving the incorporation of employees' membership and role status into their social identity. POS should thus contribute to employees' sense of purpose and meaning. Additionally, Shore and Tetrick (1991) suggested that POS might reduce feelings of entrapment (i.e., continuance commitment) that occur when employees are forced to stay with an organization because of the high costs of leaving.

Job-Related Affect

POS has been hypothesized to influence employees' general affective reactions to their job, including job satisfaction and positive mood. Job satisfaction refers to employees' overall affect-laden attitude toward their job (Witt, 1991). POS should contribute to overall job satisfaction by meeting socioemotional needs, increasing performance-reward expectancies, and signaling the availability of aid when needed. Positive mood differs conceptually from job satisfaction in that it involves a general emotional state without a specific object (George, 1989). Mood has been proposed as the state component of affectivity, influenced by environment (George & Brief, 1992). POS may contribute to employees' feelings of competence and worth, thus enhancing positive mood (Eisenberger et al., 2001; cf. George & Brief, 1992).

Job Involvement

Job involvement refers to identification with and interest in the specific work one performs (Cropanzano et al., 1997; O'Driscoll &

Randall, 1999). Perceived competence has been found to be related to task interest (Eisenberger et al., 1999). By enhancing employees' perceived competence, POS might increase employees' interest in their work.

Performance

POS should increase performance of standard job activities and actions favorable to the organization that go beyond assigned responsibilities. According to George and Brief (1992), such extrarole activities include aiding fellow employees, taking actions that protect the organization from risk, offering constructive suggestions, and gaining knowledge and skills that are beneficial to the organization. We divided extrarole behaviors into those that are focused on helping coworkers and those that help the organization. These differences are, of course, a matter of degree, as helping others often helps the organization as well.

Strains

POS is expected to reduce aversive psychological and psychosomatic reactions (i.e., strains) to stressors by indicating the availability of material aid and emotional support when needed to face high demands at work (George et al., 1993; Robblee, 1998). Such buffering effects of POS on stressor-strain relationships are discussed in a later section on the socioemotional need-fulfilling role of POS. Some investigators have proposed a main effect rather than a buffering effect of POS on such strains as fatigue (Cropanzano et al., 1997), burnout (Cropanzano et al., 1997), anxiety (Robblee, 1998; Venkatachalam, 1995), and headaches (Robblee, 1998). It is conceivable that POS could decrease employees' general level of stress at both high and low exposure to stressors (cf. Viswesvaran, Sanchez, & Fisher, 1999).

Desire to Remain

Witt and colleagues (Nye & Witt, 1993; Witt, 1991; Witt & Nye, 1992) examined the relationship between POS and employees' desire to remain with the organization. These studies used a scale by Hrebiniak and Alutto (1972) assessing workers' propensity to leave the organization if offered slightly higher pay, more professional freedom or status, or friendlier coworkers. Desire to remain should be distinguished from the discomforting perception of being trapped in an organization because of the high costs of leaving (i.e., continuance commitment).

Withdrawal Behavior

Withdrawal behavior refers to employees' lessening of active participation in the organization. The relationship of POS to behavioral intentions to leave (i.e., turnover intention) have been assessed (e.g., D. Allen et al., 1999; Aquino & Griffith, 1999; Guzzo, Noonan, & Elron, 1994; Wayne et al., 1997), as have actual withdrawal behaviors such as tardiness, absenteeism, and voluntary turnover. Retention of organizational membership, high attendance, and punctuality provide publicly identifiable ways for employees to reciprocate POS. POS may also increase affective organizational commitment, thereby lessening withdrawal behavior.

Method

Literature Search

Several retrieval strategies were used to identify relevant published and unpublished studies. First, we carried out a computer search of the PsycINFO and Dissertation Abstracts International databases, beginning with the introduction of the POS construct in 1986. We searched for all published articles and unpublished doctoral dissertations and master's theses containing the terms *perceived organizational support*, *organizational support*, or *perceived support* in their title or abstract. Second, we carried out a computer search of Web of Science's citation index for all articles that referenced either of two major source articles on POS (Eisenberger et al., 1986, 1990). Third, we assembled relevant unpublished manuscripts supplied to us by researchers investigating POS. Finally, we examined the reference lists of all research reports used in the meta-analysis.

Inclusion Criteria

As previously noted, studies examining POS have almost always used the SPOS. We excluded several studies using SPOS items because they combined the items with other measures of employee attitudes such as employee commitment. We analyzed antecedents or consequences as long as at least three studies measuring the same variable were available. We excluded the small number of studies relating POS to self-report measures of performance on the basis that self-enhancement bias renders self-reported performance a generally less valid indicator of performance than supervisor evaluations or objective performance measures.

Study Coding

The 73 studies contained a total of 177 assessments of associations between antecedents and POS and 166 assessments of associations between POS and consequences. Once the antecedent and consequence categories were established, we independently coded each variable. We agreed concerning 173 of the 177 antecedent-variable classifications and 163 of the 166 consequent-variable classifications. We resolved the small number of disagreements through discussion. For each sample of employees, Table 1 gives the number of participants, internal reliability of the SPOS, number of SPOS items, response rate, percentage of male respondents, mean age, antecedent variables' internal reliabilities and effect sizes, and outcome variables' internal reliabilities and effect sizes. We checked data against the original articles to eliminate errors concerning the recording of statistical information.

Effect Sizes

Because of the high internal reliability and unidimensionality of the SPOS, we used each study's average SPOS score as the measure of POS. The index of effect size was the product-moment correlation coefficient (r). Using the formulas provided by Hedges and Olkin (1985) and Hunter and Schmidt (1990), we corrected each correlation for attenuation using the scale reliabilities reported in each study. When a study failed to provide reliability information, we substituted the average reliability for the variable across all samples for the relevant variable. The computer meta-analytic software DSTAT (Johnson, 1993) was used to compute average effect sizes (r_+), weighted to correct for differences in sample size. Average weighted effect sizes were computed for the general categories of antecedents and consequences (e.g., organizational commitment) and subcategories (e.g., affective and continuance commitment).

Some studies contained more than one measure of the same subcategory (e.g., two scales used to measure affective commitment). To satisfy the statistical assumption of independent sampling (Hedges & Olkin, 1985),

we averaged multiple measures of the same construct following an *r*-to-*Z* transformation. Many studies contained multiple subcategories (e.g., in-role and extrarole performance); when combining these data to form a more general category (e.g., overall performance), we converted the multiple effect sizes to *Z* scores, averaged them, then converted them back to *r* scores, thereby satisfying the statistical assumption of independent sampling.

Publication Bias

To reduce the bias in reported effect sizes stemming from the lessened rate of publication of studies reporting statistically unreliable findings (Becker, 1994), we included unpublished doctoral dissertations, master's theses, and research reports in the meta-analyses. We also calculated fail-safe *N*s involving the number of nonsignificant effect sizes that would have to be included to alter the determination that a relationship exists (Cooper, 1998; Rosenthal, 1979).

Homogeneity Analyses

DSTAT was used to calculate the homogeneity estimate (*Q*) for each main antecedent and consequence category and each subcategory. This statistic gives the probability that variation in effect sizes within a category is due to sampling error alone (Cooper, 1998). Statistically significant *Q* values suggest that unmeasured variables are moderating the observed relationship (Cooper, 1998). As suggested by Hedges and Olkin (1985), where the *Q* statistic had a *p* value of less than .05, up to 20% of the effect sizes most different from the average effect size were removed, one at a time, in an attempt to obtain homogeneity. Whenever outliers were removed to reduce heterogeneity of variance, the findings are reported both with outliers included and with them removed.

Moderator Analyses

We attempted to examine whether organizational-level variables (organizational size, unionization, and type of organization) contributed to the variability of effect sizes within categories and subcategories of the antecedents and consequences of POS. Because many studies did not provide the needed information, we required a minimum of 20 studies with the required information for moderator analysis within a given category of antecedents or consequences. This criterion was met only for organization type (manufacturing, private nonmanufacturing, education, government, and health) in the categories of fairness, favorableness of organizational rewards and job conditions, organizational commitment, and affective commitment. We used the *Q* statistic to assess the contribution of organizational type to variability of effect sizes within each of these categories.

Statistics Reported

Statistics reported for each analysis in Tables 2 and 3 include *k* (number of samples in each analysis), *N* (total number of participants in the analysis), *r*₊ (average weighted correlation) and corresponding significance level, *r*_{c+} (average weighted correlation with component correlations corrected for attenuation) and corresponding significance level, fail-safe *N*, and *Q* (heterogeneity of effect sizes). To interpret effect sizes, we followed J. Cohen's (1988) conventions that a small effect size has a correlation of at least .10, a medium effect size has a correlation of at least .24 but less than .37, and a large effect size has a minimum correlation of .37. We refer to statistically significant findings with a correlation of less than .10 as very small.

Path Analysis

Using the effect sizes obtained from the meta-analysis, we conducted a path analysis to examine the relative contributions of the three major categories of POS's antecedents (fairness of treatment, supervisor support, and rewards and favorable job conditions). As suggested by Viswesvaran and Ones (1995), we used the meta-analytically derived correlation matrix as our input file for LISREL 8 (Jöreskog & Sörbom, 1993). A path model rather than a full structural equation model was used because the correlations had already been corrected for attenuation. The three antecedent variables were allowed to covary. We calculated standardized path coefficients using LISREL 8 software with maximum likelihood estimation.

Results and Discussion

Descriptive Statistics

Table 1 contains summary information from each study included in the present review. A total of 58 research reports (11 unpublished) contributed to the meta-analysis, providing a total of 73 independent studies. Industry types for the samples are as follows: 17 private industry, 13 manufacturing, 12 education, 10 government, 6 health, 2 farm, and, in addition, 13 multiple industries. The average number of SPOS items used with each sample was 13, with a high internal reliability (average $\alpha = .90$). Internal consistency information (when available from the research reports) is reported in Table 1 for all antecedents and consequences that are measured variables with more than one item. Scale reliabilities were acceptably high.

Fail-Safe Analyses

On average, over 2,076 findings of nonsignificant effect sizes would need to be added to each of our overall antecedent categories (i.e., fairness of treatment, supervisor support, favorableness of rewards and job conditions, and person characteristics) to change statistically significant antecedent relationships to nonsignificance. For relationships involving consequences, the figure is 1,589. The majority of antecedents and all of the consequences passed the $5k + 10$ guideline (Hedges & Olkin, 1985; Rosenthal, 1979) wherein the fail-safe *N* should be larger than 5 times the number of studies included in the meta-analysis plus 10. Education, gender, and conscientiousness were the only variables that failed to satisfy the guideline; the statistically reliable relationships reported for these three variables should therefore be considered cautiously.

Results Concerning Perceived Organizational Support's Antecedents

Results of the meta-analyses for antecedents are given in Table 1 for the individual studies and Table 2 for the summary findings. Using the previously discussed conventions concerning effect sizes, we found that three of the five overall categories of antecedents showed strong relationships with POS: fair treatment, supervisor support, and rewards and favorable job conditions. Person characteristics were weakly related to POS, and demographic variables were very weakly related. Our path analysis
(text continues on page 707)

Table 1
Study Characteristics and Constructs Measured

Study	N	SPOS α	SPOS items	Response rate (%)	% men	M age	Antecedents ($r/r_c/\alpha$) ^a	Consequences ($r/r_c/\alpha$)
D. Allen et al. (1999) ^b								
Sample 1	264	.94	16	78 (S)	4	34.0	RW (.67/.75/.85), PJV (.61/.67/.89), RWPR (.53/.61/.80), SEC (.43/.55/.66)	AC (.74/.81/.88), TI (–.44/–.47/.95), TO (–.08/na/na)
Sample 2	442	.94	16	79 (S)	78	30.0	RW (.66/.74/.85), PJV (.60/.67/.85), RWPR (.60/.70/.79), SEC (.48/.56/.77)	AC (.74/.80/.90), TI (–.44/–.47/.92), TO (–.14/na/na)
M. W. Allen (1992)	244	.87	14	49 (S)	—	—		AC (.48/.57/.82)
M. W. Allen (1995)	113	.90	13	88 (M)	71	—	PJV (.50/.59/.88), RW (.37/.43/.82), SS (.53/.61/.85, .42/.47/.88)	
Aquino & Griffeth (1999) ^b								
Sample 1	198	.95	16	75 (S)	4	36.4	NA (–.24/–.28/.85), PA (.42/.46/.89), PJI (.50/.53/.92), PJV (.63/.68/.90)	JS (.56/.64/.81), TI (–.44/–.46/.95), TO (–.09/na/na)
Sample 2	200	.90	16	85 (S)	81	36.5	NA (–.34/–.39/.86), PA (.35/.39/.89), PJI (.25/.29/.85), PJV (.53/.59/.91)	JS (.56/.64/.79), TI (–.44/–.46/.96), TO (–.10/na/na)
Armeli et al. (1998)	92	.82	11	93 (S)	87	28.8		INP (.08/na/na, .11/na/na)
Armstrong-Stassen (1997)	25	—	17	47 (S)	56	46.6	SEC (.08/.10/na, .48/.59/na)	AC (.68/.86/—), CC (–.37/–.43/—), ST (–.55/–.65/—, –.59/–.69/M)
Armstrong-Stassen (1998)	82	.92	10	43 (S)	83	45.0	SEC (.25/.31/.69, .06/.07/na)	JS (.33/.38/.83)
Cleveland & Shore (1992)	411	.94	17	94 (S)	80	43.0	AGE (.16/na/na), RWPR (.73/.83/.82), TR (.09/.10/na)	AC (.60/.70/.79), INP (–.09/–.12/.56), JI (.28/.34/.73), JS (.48/.66/.57)
Cropanzano et al. (1997)								
Sample 1	69	.94	17	— (S)	40	43.0	POL (–.80/–.86/.91)	AC (.69/.76/.87), JI (.22/.24/.91), JS (.63/.69/.89), EXPI (–.09/–.10/.91), EXPO (.04/.04/.86), TI (–.38/–.44/.79)
Sample 2	185	.94	17	— (M)	42	20.5	RS (–.27/–.31/.83), POL (–.60/–.70/.79)	AC (.63/.71/.83), JI (.28/.32/.81), JS (.60/.64/.93), ST (–.39/–.46/.78, –.23/–.30/.61, –.24/–.26/.94), TI (–.41/–.52/.66)
Daly (1998) ^b	350	.86	9	— (M)	25	27.5	AGE (.08/na/na), GEN (.07/na/na), TEN (.02/na/na)	EXPI (.18/.21/.87), EXPO (.24/.27/.93)
Davis-LaMastro (1995) ^b								
Sample 1	176	.82	12	— (M)	—	—		AC (.27/.35/.74), MD (.20/.24/.85), TI (–.23/–.28/na)
Sample 2	251	.84	12	— (M)	—	—		AC (.60/.73/.82), MD (.34/.41/.84), TI (–.29/–.34/na)
Dawson (1996) ^b		.95 (all Ss)					CO (.86), RW (.91), PJ (.97) (alphas for all Ss)	AC (.90), CC (.82) (alphas for all Ss)
Sample 1	276		17	— (M)	40	22.7	CO (.23/.25), RW (.62/.67), PJ (.78/.81)	AC (.62/.67), CC (–.01/–.01)
Sample 2	91		17	— (S)	63	43.7	CO (.09/.10), RW (.56/.60), PJ (.39/.41)	AC (.58/.63), CC (–.27/–.31)
Sample 3	22		17	— (S)	0	40.2	CO (–.29/–.32), RW (.73/.79), PJ (.90/.94)	AC (.63/.68), CC (–.66/–.75)
Dekker & Barling (1995)	334	—	16	32 (M)	9	35.0	RA (–.58/–.72/—), RC (.52/.67/—), RS (–.44/–.53/—, –.60/–.72/—), SIZ (–.31/na/na)	
Eisenberger et al. (2001)	413	.77	6	92 (S)	66	—	TEN (.15/na/na)	AC (.70/.88/.83), INP (.16/.19/.93), MD (.50/.74/.60), EXP (.15/.18/.91), WTH (–.24/–.30/.85)
Eisenberger et al. (1997)	383	.90	8	70 (M)	42	41.5	AUT (.30/.35/na), RS (–.28/–.34/na), RW (.48/.60/.71), SEC (.30/.37/na), TR (.28/.32/na)	JS (.60/.65/.85)

Table 1 (continued)

Study	N	SPOS α	SPOS items	Response rate (%)	% men	M age	Antecedents ($r/r_c/\alpha$) ^a	Consequences ($r/r_c/\alpha$)
Eisenberger et al. (1990) Sample 1	180, ^c 95	.87	17	97 (M)	—	—		INP (.33/.39/.82), WTH (—/.32/ na/na, —.40/na/na)
Sample 2	531	—	17	98 (S)	—	—	RW (.42/—)	AC (.64/.72/—), EXPO (.28/ .31/.88 interrater)
Eisenberger et al. (1986)	71	.93	17	73 (S)	—	—		WTH (—/.20/na/na, —.28/na/ na)
Eisenberger et al. (1999)	324	.89	8	93 (S)	68	—	AUT (.47/.56/na), RWPA (.45/.51/na), TEN (.09/na/ na)	INP (.19/.22/.87), MD (.40/.47/ .80)
Flett et al. (1995)	62	—	17	— (S)	33	40.4	RS (—/.32/—/.38/—, —.35/ —/.42/—)	JS (.37/.43/—)
George et al. (1993)	148	.94	16	16 (M)	—	—	NA (—/.16/—/.18/.82), RS (—/.15/—/.17/.80)	MD (.28/.32/.81)
Greenup (1997) ^b	404	.90	9	47 (M)	20	—	AUT (.50/.56/.88), TEN (.01/na/na)	EXPO (.15/.17/.92, .14/.16/.91, .29/.33/.84)
Guzzo et al. (1994)	148	.95	21	71 (M)	93	43.0	AGE (—/.09/na/na), GEN (.02/na/na), RWPA (.21/ .27/.64), TEN (—/.08/na/ na)	AC (.50/.55/.86), TI (—/.33/ —/.37/na)
Harris (1995) ^b	37	.95	16	61 (S)	73	42.0	AGE (.26/na/na), ED (—/.13/ na/na), GEN (.17/na/na), RA (—/.26/—/.29/.82), RC (—/.59/—/.67/.82), TEN (.32/na/na)	AC (.78/.84/.91), CC (—/.18/ —/.21/.76)
Hofmann & Morgeson (1999)	49	.96	9	77 (S)	88	50.8	AGE (.03/na/na), SS (.48/ .53/.87), TEN (.04/na/na)	
Hutchison (1997a)	207	.92	8	28 (S)	41	—	PJ (.40/.44/.88), PJV (.24/ .26/.91, .12/.13/.93), RA (—/.26/—/.29/.87), RC (—/.20/—/.22/.86), SS (.39/ .44/.87, .45/.48/.97)	AC (.76/.84/.89)
Hutchison (1997b)	205	.92	8	28 (S)	41	—	PJ (.84/na/na, factor correlation), SS (.66/na/ na, factor correlation)	AC (.81/na/na, factor correlation, .88/na/na, factor correlation)
Hutchison & Garstka (1996)	337	.89	8	32 (M)	47	—	PJV (.39/.45/.86)	AC (.38/.42/.90)
Hutchison et al. (1998)	91	.89	8	61 (S)	38	—	SS (.56/.62/.92)	AC (.69/.76/.93)
Jones et al. (1995) Sample 1	219	—	—	75 (S)	98	—	RS (—/.56/—/.67/—)	AC (.54/.61/—), JS (.37/.43/—)
Sample 2	93	—	—	—	48	—	RS (—/.51/—/.61/—)	AC (.22/.25/—), JS (.33/.38/—)
Sample 3	55	—	—	98 (S)	10	—	RS (—/.70/—/.84/—)	AC (.46/.52/—), JS (.30/.35/—)
Kottke & Sharafinski (1988)	216	.96	16	82 (S)	—	37.8	SS (.13/.13/.98)	
Ladd (1997) ^b	214	.92	9	49 (M)	78	—	CO (.13/.14/.92)	INP (.17/.19/.87), EXPI (.09/ .10/.93), EXPO (.19/.22/.81)
Lynch et al. (1999) Sample 1	300	.89	8	92 (S)	70	—	AGE (—/.12/na/na), ED (.05/ na/na), SIZ (—/.28/na/na), TEN (—/.07/na/na)	INP (.13/.15/.88), EXP (.15/ .17/.90)
Sample 2	221	.90	8	52 (M)	41	39.4	TEN (.11/na/na)	INP (.14/.16/.87), EXP (.05/ .06/.91)
Malatesta (1995) ^b	292	.91	6	19 (S)	—	40.0	PJV (.42/.46/.91), RW (.14/ .16/na, .38/.41/.96), RWPR (.14/.16/na), SS (.47/.50/.97), TR (.09/.10/ na)	AC (.55/.62/.88), EXPI (.22/ .27/.76), EXPO (.29/.34/ .81), TI (—/.50/—/.62/.71)
Masterson (1998) ^b	187	.91	9	91 (S)	65	—	RW (.63/.67/.97), PJ (.75/ .82/.92), PJI (.75/.84/.87)	AC (.66/.75/.85), JS (.46/.52/ .87)

(table continued)

Table 1 (continued)

Study	<i>N</i>	SPOS α	SPOS items	Response rate (%)	% men	<i>M</i> age	Antecedents ($r/r_c/\alpha$) ^a	Consequences ($r/r_c/\alpha$)
Miceli & Mulvey (2000) Sample 1	250	.93	16	55 (S)	62	48.0	AGE (.01/na/na), ED (−.14/ na/na), GEN (.09/na/na), RWPA (.27/.29/.96), TEN (−.12/na/na)	AC (.65/.70/.92)
Sample 2	1,160	.93	16	67 (M)	47	43.0	AGE (.00/na/na), ED (−.14/ na/na), GEN (.04/na/na), RWPA (.47/.50/.96), TEN (−.05/na/na)	AC (.81/.88/.92)
Moorman et al. (1998)	157	.98	17	57 (M)	30	42.5	PJ (.69/.69/.98)	EXPI (.25/.28/.83), EXPO (.28/.32/.78, .08/.09/.80, .16/.18/.84)
Nye & Witt (1993)	1,297	.95	16	62 (S)	61	—	PJ (.55/.64/.78), POL (−.85/ −.90/.93)	DR (.59/.66/.85), JS (.68/.78/ .79)
O'Driscoll & Randall (1999)	350	.94	17	23 (M)	70	42.0		AC (.61/.71/.78), CC (−.20/ −.23/.79), JI (.44/.50/.82)
D. M. Randall & O'Driscoll (1997)	350	.94	17	23 (M)	70	42.0		AC (.61/.71/.78), CC (−.20/ −.23/.79)
M. L. Randall et al. (1999)	128	.94	17	67 (M)	41	41.0	POL (−.77/−.85/.87)	AC (.71/.80/.84), CC (−.02/ −.03/.70), INP (.22/.24/.88), JS (.71/.78/.88), TI (−.60/ −.69/.80), EXPI (.25/.29/ .80), EXPO (.26/.32/.70)
Rhoades et al. (2001) Sample 1	367	.90	8	98 (M)	40	38.6	PJ (.59/.79/.62), RW (.47/ .59/.70), SIZ (−.31/na/ na), SS (.65/.72/.90), TEN (−.08/na/na)	AC (.63/.72/.85)
Sample 2	333	.89	7	92 (S)	63	—	TEN (.17/na/na)	AC (.70/.79/.89)
Sample 3	226	.88	7	93 (S)	73	—	TEN (.16/na/na)	AC (.69/.78/.88)
Sample 4	1,124	.86	7	93 (S)	33	—	TEN (.09/na/na)	AC (.69/.80/.87), TO (−.09/ na/na)
Sample 5	262	.82	7	88 (S)	—	—		AC (.65/.76/.89), TO (−.21/ na/na)
Robblee (1998) ^b	224	—	8	36 (S)	34	42.0	AUT (.47/.56/—)	ST (−.26/−.30/—, −.27/−.31/ M)
Rogg (1997) ^b	214	.92	8	— (S)	65	43.7	AUT (.51/.60/.78, .37/.39/ .96), CO (−.04/−.05/ .77), PJV (.48/.78), RS (−.29/.89)	AC (.62/.70/.83), INP (.21/.24/ .83), EXP (.16/.17/.93), TI (−.57/−.63/.90)
Rosenblatt & Ruvio (1996)	385	.82	17	— (M)	30	40.0	SEC (.18/.21/.90)	
Scher (1991) ^b	140	—	17	— (S)	—	—		JS (.56/.65/—), ST (−.21/−.26/—, −.41/−.51/ —, −.17/−.21/—)
Settoon et al. (1996)	124	.94	8	49 (S)	15	34.7	SS (.60/.65/.92, .58/.68/.78, .63/.78/.70, .53/.56/.96)	AC (.58/.65/.84), INP (.18/.20/ .89), EXPI (.18/.21/.81)
Shore & Barksdale (1998)	327	.94	17	95 (M)	63	29.0		AC (.64/.72/.85), TI (−.48/ −.54/.85)
Shore & Tetrick (1991)	330	.95	17	95 (S)	18	47.4	RWPA (.45/.49/.88), SEC (.52/.71/.56)	AC (.71/.77/.90, .70/.79/.83), CC (−.09/.83), JS (.61/.92)
Shore & Wayne (1993)	338	.95	17	90 (S)	80	43.6		AC (.64/.70/.88), CC (−.08/ −.09/.82), EXPI (.30/.33/ .88), EXPO (.23/.25/.87)
Venkatachalam (1995) ^b	300	.95	17	30 (S)	54	34.7	AGE (.05/na/na), RA (−.53/ −.60/.81), RC (−.47/−.54/.80), TEN (−.07/na/na)	AC (.64/.69/.91), JS (.54/.59/ .88), ST (−.26/−.29/.83)
Wayne et al. (1997)	252	.93	9	40 (S)	88	44.0	RWPR (.21/.24/na), SS (.50/ .55/.90), TEN (.12/na/na), TR (.45/.50/.87)	AC (.70/.78/.87), INP (.36/.39/ .92), EXP (.28/.31/.86), EXPI (.12/.14/.76), TI (−.63/−.69/.89)
Welchans (1995) ^b	467	.91	9	41 (M)	75	40.0	AGE (−.12/na/na), ED (.04/ na/na), GEN (.03/na/na), TEN (−.10/na/na)	JS (.65/.74/.85)

Table 1 (continued)

Study	N	SPOS α	SPOS items	Response rate (%)	% men	M age	Antecedents ($r/r_c/\alpha$) ^a	Consequences ($r/r_c/\alpha$)
Witt (1991)	43	—	15	85 (S)	—	—		DR (.59/.67/—), JS (.51/.59/—), EXP (.22/.25/—)
Witt (1992)	134	.74	3	67 (S)	81	34.2	RWPA (.38/.48/na), RWPR (.44/.55/na)	JS (.30/.39/.79)
Witt & Hellman (1992)	1,083	.95	16	54 (S)	62	—	AGE (.06/na/na), ED (.01/na/na), GEN (.03/na/na), NA (–.42/–.46/.86), PA (.38/.41/.89), PJV (.46/.50/.90), TEN (–.10/na/na)	
Witt & Nye (1992)	991	.95	16	54 (S)	62	—	POL (–.84/–.89/.93)	DR (.60/.67/.85), JS (.60/.69/.79, .68/.77/na)
Yoon et al. (1996)	1,585	.67	3	62 (M)	—	—	AGE (.17/na/na), AUT (.29/.40/.79, .31/.42/.79), ED (.13/na/na), GEN (–.17/na/na), RA (.00/.00/.67), RC (–.16/–.25/.61), RS (–.26/–.37/.74), RWPR (.39/.53/.82), SS (.46/.73/.60), TEN (.05/na/na)	
Yoon & Lim (1999)	1,882	—	3	72 (M)	31	31.0	AGE (.20/na/na), AUT (.47/.55/—), ED (.16/na/na), GEN (–.20/na/na), PA (.25/.28/—), RS (–.36/–.43/—), SS (.56/.66/—), TEN (.06/na/na)	

Note. A dash indicates missing information. AC = affective commitment; AGE = age; AUT = autonomy; CC = continuance commitment; CO = conscientiousness; DR = desire to remain; ED = education; EXP = extrarole performance; EXPI = extrarole performance—helping individuals; EXPO = extrarole performance—helping organization; GEN = gender; INP = in-role performance; JI = job involvement; JS = job satisfaction; M = multiple organizations; MD = positive mood; na = measures without measurement error or single-item measures; NA = negative affectivity; PA = positive affectivity; PJ = procedural justice; PJI = procedural justice—interactional; PJV = procedural justice—voice; POL = politics; r_c = correlation corrected for attenuation; RA = role ambiguity; RC = role conflict; RS = role stressors; RW = organizational rewards; RWPA = organizational rewards—pay; RWPR = organizational rewards—promotions; S = single organization; Ss = participants; SEC = job security; SIJ = organization size; SPOS = Survey of Perceived Organizational Support; SS = supervisor support; ST = strains; TEN = tenure; TI = turnover intentions; TO = turnover; TR = training; WTH = other withdrawal behavior. ^a Where more than one alpha is reported, there were multiple measures of a construct. ^b Unpublished study. ^c 180 = number of participants with in-role performance measure; 95 = number of participants with withdrawal behavior measure.

showed that of the three kinds of organizational treatment, fairness had the greatest relationship with POS ($\beta = .41, p < .01$) when we controlled for the other two antecedents, supervisor support had the second strongest relationship ($\beta = .32, p < .01$), and rewards and favorable job conditions had the weakest, albeit a statistically significant, relationship ($\beta = .12, p < .01$).

Fairness of Treatment

This overall category was strongly related to POS both when considered alone and when we controlled for supervisor support and favorableness of rewards and job conditions. The subcategories of procedural justice and perceived organizational politics both strongly related to POS in the predicted direction. Effect sizes were heterogeneous, and removal of outliers did not result in homogeneity. However, all effect sizes with individual samples were in the predicted direction.

Supervisor Support

Supervisor support was the overall category of organizational treatment second most strongly associated with POS when we

controlled for the two other general categories of organizational treatment. The effect sizes were heterogeneous, but all were in the positive direction. Removal of outliers did not produce homogeneous results, suggesting that although favorable treatment received from supervisors is usually taken as a strong indication of POS by employees, the extent of the relationship differs considerably across organizations.

Organizational Rewards and Job Conditions

Favorableness of rewards and job conditions overall (once we reversed the direction of the effect sizes for role stressors and organization size) had a large overall relationship with POS when considered alone. However, the unique relationship between favorableness of rewards and job conditions and POS was only moderate when we controlled for fairness and supervisor support in the path analysis. Within this general category, organizational rewards, job security, and role stressors had strong relationships with POS. Only with pay did removal of outliers produce homogeneity. The subcategories of role stressors showed smaller relationships with POS than did the overall category, because studies using only conglomerate measures of roles stressors generally

produced strong effects. Training and organizational size showed moderate relationships with POS.

Person Characteristics

POS was strongly related to trait measures of negative affectivity and positive affectivity. Only three samples provided negative affectivity data, which prevented removal of outliers. Despite the heterogeneity of effect sizes, negative relationships were found between negative affectivity and POS for all three samples. Conscientiousness had a small positive relationship with POS. Perfectionism, similar to conscientiousness, was examined in one study (Flett, Hewitt, & Hallett, 1995) and showed no reliable relationship with POS, reinforcing the conclusion that conscientiousness shows little relationship to POS. Demographic characteristics (i.e., age, education, gender, and tenure) showed very little relationship with POS.

Moderator Analyses

Organizational type contributed to the heterogeneity of effect sizes for fairness, $Q(4) = 57.5$, $p < .01$, and organizational rewards and job conditions, $Q(4) = 110.0$, $p < .01$. Manufacturing

employees showed a stronger relationship between fairness and POS than did other employees, although this finding should be interpreted cautiously, as data were available from only two manufacturing organizations. The relationship of rewards and favorable job conditions with POS was lower for educational employees than for the other employees.

Discussion of Perceived Organizational Support's Antecedents

Concerning employees' treatment by the organization, the path analysis revealed, as expected, that fairness had the strongest positive relationship with POS, followed by supervisor support and rewards/job conditions, respectively. Fairness may be considered by employees to be readily controlled by upper management and therefore highly discretionary. Considering the procedural justice component of fairness, voice and interactional justice had large and approximately equal relationships with POS. Evidently, having an opportunity to have one's opinions heard and being treated with dignity and respect in the administration of policy create the strong impression that the organization values one's contribution and cares about one's well-being. Perceived organizational poli-

Table 2
Meta-Analytic Results for Antecedents of Perceived Organizational Support

Antecedents	r_+	r_{c+}	SD	k	N	Q	Fail-safe N
Fairness of treatment	.62**	.68**	.18	22	7,325	1,904.90**	1,891
Procedural justice	.54**	.59**	.15	18	5,952	608.53**	1,262
Voice	.48**	.53**	.16	10	3,350	198.80**	385
Interactional	.50**	.55**	.23	3	585	182.42**	33
Politics	-.82**	-.83**	.07	5	2,670	244.68**	94
Supervisor support	.51**	.64**	.16	12	5,383	442.78**	87
Organizational rewards and job conditions	.43**	.46**	.17	38	13,719	1,902.84**	5,468
Organizational rewards	.46**	.54**	.17	20	7,562	748.31**	1,543
Pay	.44**	.48**	.08	5	2,198	31.50**	94
Pay with outlier removed	.46**	.50**	.01	4	1,948	0.50	33
Promotions	.44**	.55**	.22	7	3,380	561.59**	187
Job security	.37**	.46**	.18	7	1,911	228.33**	145
Autonomy	.41**	.49**	.08	7	5,016	110.47**	187
Role stressors	-.30**	-.40**	.18	14	5,812	369.27**	753
Role ambiguity	-.17**	-.20**	.25	5	2,463	575.56**	46
Role conflict	-.12**	-.29**	.22	5	2,463	308.82**	94
Training	.21**	.24**	.17	4	1,338	82.69**	41
Size of organization	-.30**	-.30**	.01	3	1,001	0.48	33
Person characteristics	.07**	.08**	.15	30	13,145	318.80**	858
Personality	.29**	.31**	.24	8	2,298	153.39**	103
Conscientiousness	.10**	.11**	.20	5	817	30.89**	16
Negative affectivity	-.39**	-.43**	.07	3	1,481	17.42**	33
Positive affectivity	.31**	.34**	.07	4	3,363	42.49**	59
Positive affectivity with outlier removed	.38**	.41**	.03	3	1,481	1.77	33
Demographics	.03**	.03**	.09	22	11,519	117.58**	318
Age	.09**	.09**	.12	13	8,022	177.91**	168
Education	.05**	.05**	.11	8	6,764	175.23**	49
Gender	-.07**	-.07**	.11	9	6,962	191.01**	42
Tenure	.02*	.02*	.12	22	11,519	186.22**	704

Note. r_+ = average weighted correlation; r_{c+} = average weighted correlation when correlations are corrected for attenuation; SD = standard deviation of corrected correlations; k = number of independent samples; Q = heterogeneity statistic for correlations corrected for attenuation.

* $p < .01$. ** $p < .001$.

Table 3
Meta-Analytic Results of Consequences of Perceived Organizational Support

Consequences	r_+	r_{c+}	SD	k	N	Q	Fail-safe N
Organizational commitment	.60**	.67**	.23	42	11,706	3,446.05**	5,903
Affective commitment	.65**	.73**	.13	42	11,706	1,830.55**	6,859
Continuance commitment	-.13**	-.15**	.21	10	1,947	62.89**	154
Job-related affect	.55**	.59**	.16	26	7,306	1,114.11**	2,602
Job satisfaction	.59**	.62**	.14	21	5,886	808.54**	1,687
Positive mood at work	.37**	.49**	.17	5	1,420	213.21**	94
Job involvement	.33**	.39**	.09	4	1,015	23.89**	53
Job involvement with outliers removed	.27**	.32**	.04	3	665	1.56	33
Performance	.18**	.20**	.11	20	5,057	155.04**	1,064
In-role	.16**	.18**	.13	12	2,873	126.74**	395
Extra-role	.20**	.22**	.09	16	4,050	49.45**	670
Extra-role with outliers removed	.21**	.22**	.05	13	3,760	18.20	667
Toward individuals	.19**	.22**	.12	9	1,924	38.88**	189
Toward organization	.24**	.28**	.09	8	2,079	16.31	174
Toward organization with outliers removed	.24**	.29**	.04	7	2,010	7.18	187
Strains	-.28**	-.32**	.14	5	874	11.39	94
Desire to remain with org.	.59**	.66**	.01	3	2,331	0.46	33
Withdrawal behavior	-.30**	-.34**	.17	19	5,111	586.50**	1,376
Turnover intentions	-.45**	-.51**	.12	14	3,146	1,176.23**	760
Turnover	-.11**	-.11**	.05	6	2,490	7.93	78
Other withdrawal behavior	-.26**	-.26**	.06	3	579	2.77	28

Note. r_+ = average weighted correlation; r_{c+} = average weighted correlation when correlations are corrected for attenuation; SD = standard deviation of corrected correlations; k = number of independent samples; Q = heterogeneity statistic for correlations corrected for attenuation; org. = organization. ** $p < .001$.

tics, another aspect of fairness, was even more highly related to POS (in the negative direction). Thus, a culture of self-seeking partisanship seems to convey the organization's lack of interest in the welfare of individual employees.

Because supervisors act as agents of the organization in evaluating subordinates and directing their performance, the favorableness of treatment received from most supervisors (i.e., supervisor support) may be viewed by employees as reflecting the organization's views toward them. When we control for fairness and supervisor support, the modest average relationship of rewards and favorable job conditions with POS suggests that employees are generally aware of the practical limitations on resources that require substantial financial outlays or that interfere with efficiencies required by competitive pressures (Eisenberger et al., 1997). The relationship of rewards and favorable job conditions with POS was weakest for educational employees, whose salaries and job conditions often depend on voters' decisions, which are beyond their employer's control.

Demographics showed very small relationships with POS. Such factors as age, education, gender, salary, and tenure do not appear, therefore, to provide alternative explanations for the relationships found between other antecedents and POS.

Results Concerning Perceived Organizational Support's Consequences

Results of the meta-analyses for POS's consequences are given in Table 1 for the individual studies and Table 3 for the summary findings. POS had strong relationships in the predicted direction with affective commitment, job satisfaction, positive mood at work, desire to remain with the organization, and turnover intentions. POS had medium relationships with job involvement,

strains, withdrawal behaviors short of turnover (e.g., absenteeism and tardiness), and extrarole behavior directed toward the organization. POS had small but statistically reliable relationships with other kinds of performance, continuance commitment, and turnover.

Organizational Commitment

The overall effect size for organizational commitment was large. As predicted, the two types of commitment contained in this category showed quite different associations with POS. POS and affective commitment had a strong, positive relationship, whereas POS and continuance commitment had a small, negative relationship. The effect sizes for both constructs were heterogeneous, even after removal of outliers. Nevertheless, the POS–affective commitment associations were positive in all individual studies. POS–continuance commitment relationships were more variable, ranging from near zero to large and negative.

Job-Related Affect

Overall, job-related affect had a large effect size. Large and heterogeneous effect sizes were found for both job satisfaction and positive mood. Removal of outliers did not eliminate heterogeneity; however, the relationships of all studies involving the two constructs were in the moderate to large range in the predicted direction for job satisfaction and in the small to large range for positive mood.

Job Involvement

We found a moderate, positive relationship between POS and job involvement. We obtained homogeneity of effect sizes by

removing one outlier, and the moderate relationship was maintained.

Performance

The relationship between POS and extrarole performance directed to the organization was medium sized, whereas relationships involving the other categories of performance were small. With outliers removed, POS showed homogeneous relationships with all types of performance.

Strains

A moderate negative relationship was found between POS and strains. Effect sizes for strains were homogeneous.

Desire to Remain With Organization

A large, positive relationship with POS was found, with homogeneous effect sizes.

Withdrawal Behavior

POS showed a moderate negative relationship with the overall measure of withdrawal behavior. Relationships were strongest between POS and intention to leave, followed by associations between POS with withdrawal behaviors short of turnover, and actual turnover. Effect sizes for turnover and other actual withdrawal behaviors were homogeneous. Heterogeneous results for turnover intention were found, even after the removal of outliers. All turnover intention effect sizes, however, were in the predicted direction.

Moderator Analyses

Organization type contributed to the effect-size heterogeneity for overall organizational commitment, $Q(4) = 698.2, p < .01$, and affective commitment, $Q(4) = 481.3, p < .01$. Private nonmanufacturing and government employees showed stronger POS–commitment relationships than did manufacturing, health, and educational employees.

Discussion Concerning Perceived Organizational Support's Consequences

The consequence most strongly linked to POS was affective commitment. Evidently, employees strongly reciprocate indications of the organization's caring and positive valuation by increasing their emotional bond to the organization. POS showed a small negative relationship with continuance commitment. Such feelings of entrapment, occurring because of the high costs of quitting the organization, are expected to be lessened by POS (Shore & Tetrick, 1991).

POS showed moderate negative relationships with strains and strong positive relationships with job satisfaction and positive mood. These findings suggest that POS serves an important socioemotional function besides creating a felt obligation to aid the organization. Employees with high POS generally find their job more pleasurable, are in a better mood at work, and suffer fewer strain symptoms such as fatigue, burnout, anxiety, and headaches.

POS's relationship with performance and withdrawal behaviors ranged from small (in-role performance, extrarole behaviors directed toward individuals, turnover) to moderate (extrarole behaviors directed toward the organization, absenteeism, tardiness, and turnover intention). Extrarole behaviors directed toward the organization, high attendance, and punctuality may be salient ways to reciprocate organizational support.

Supervisor ratings of performance and withdrawal behavior are, of course, subject to various biases. However, POS has been found to be related to objective outcomes, such as police officers' issuance of traffic tickets and arrests for driving under the influence of alcohol (DUI; Armeli et al., 1998; Eisenberger et al., 1990), steel workers' creative suggestions for improving their plant's operations (Eisenberger et al., 1990), and a lessening of objectively measured withdrawal behaviors, including absenteeism (Eisenberger et al., 1986, 1990) and voluntary turnover (Eisenberger et al., in press; Rhoades et al., 2001). Further use of objective performance measures is to be encouraged.

Causal Relationships of POS With Antecedents and Outcomes

The widespread use of bivariate cross-sectional procedures to gather evidence on the relationship of POS with proposed antecedents and consequences leaves uncertain the causal order of the observed associations and the possibility that extraneous variables are responsible for the associations. More convincing evidence has been provided through the inclusion of covariates (e.g., tenure and education) in some POS studies and the use of mediational and panel designs. Mediational studies implicate POS in the development of affective organizational commitment. Wayne et al. (1997) found that POS mediated the relationship of human resources practices (developmental experiences, promotions) with affective commitment, intentions to quit, and organizational citizenship behavior. Similarly, D. Allen et al. (1999) found that POS mediated the associations of participation in decision making, job security, and fairness of rewards with affective commitment. Rhoades et al. (2001) found that POS mediated the relationships of three general work experience variables (organizational rewards, procedural justice, and supervisor support) with affective commitment.

Moorman, Blakely, and Niehoff (1998) reported that POS fully mediated the association between procedural justice and four forms of extrarole behavior: interpersonal helping, individual initiative, personal industry, and loyal boosterism. Moorman et al. suggested that POS serves as a key mechanism by which organizational fairness contributes to employee performance. POS has also been found to mediate the relationship between perceived supervisor support and voluntary employee turnover (Eisenberger et al., in press).

As to panel designs, Rhoades et al. (2001) took repeated measurements of POS and affective commitment over time in two samples of employees. POS was positively related to temporal changes in affective commitment in both samples. These findings suggest that POS leads to affective commitment. Eisenberger et al. (in press) reported that perceived supervisor support was positively related to temporal change in POS, suggesting that perceived supervisor support leads to POS. Additional panel studies would be helpful to obtain better evidence concerning causality.

Processes Underlying Perceived Organizational Support Associations

Our review indicates that three general categories of favorable treatment received by employees from the organization (i.e., fairness, supervisor support, and rewards and job conditions) are positively related to POS, which, in turn, is associated with outcomes favored by employees (e.g., increased job satisfaction, positive mood, and reduced strains) and the organization (e.g., increased affective commitment and performance and reduced turnover). Organizational support theory (Eisenberger et al., 1986; Shore & Shore, 1995) specifies mechanisms responsible for these associations, allowing stringent tests of the theory.

Attributional Processes Contributing to Perceived Organizational Support

According to Gouldner (1960), discretionary aid is valued more highly than is aid that a donor is forced to provide—discretionary aid more clearly indicates the donor's positive valuation of the recipient and concern with the recipient's welfare. Therefore, in determining organizational support, employees are especially attentive to discretionary treatment received from the organization. Using a sample of employees from many different organizations, Eisenberger et al. (1997) reported that POS was six times more strongly associated with the favorableness of high-discretion job conditions as compared with low-discretion job conditions. Systematic differences were found among occupations and organizations concerning the specific job conditions employees believed to be under the high control of the organization. Therefore, the extent to which the favorableness of a particular job condition contributes to POS varies among organizations, depending on employees' beliefs concerning the organization's control over that job condition.

Because supervisors act as representatives of the organization, employees' receipt of support from supervisors should contribute to POS. Supervisors with high informal standing within the organization are generally seen by employees as more strongly exemplifying the organization's character. Support from high-status supervisors should therefore more strongly influence POS. Accordingly, Eisenberger et al. (in press) found that the relationship between perceived supervisor support and POS was greater for employees who perceived that their supervisors had high informal status in the organization.

Reciprocation of Perceived Organizational Support

Researchers reporting positive relationships of POS with affective commitment and performance have often assumed employees' felt obligation to be an underlying process. However, only recently has felt obligation been directly assessed as a mediator of POS–outcome relationships. Consistent with organizational support theory, Eisenberger et al. (2001) reported that felt obligation mediated the relationships of POS with affective commitment, in-role performance, and extrarole performance.

To the extent that the POS–felt obligation association is due to the norm of reciprocity, the strength of this association should be influenced by employees' acceptance of the reciprocity norm as a basis for employee–employer relationships. Employee exchange

ideology refers to employees' belief that it is appropriate and useful to base their concern with the organization's welfare and their work effort on how favorably they have been treated by the organization (Eisenberger et al., 1986). Employees with a high exchange ideology showed stronger relationships of POS with felt obligation to the organization (Eisenberger et al., 2001), job attendance (Eisenberger et al., 1990), and extrarole performance (Ladd, 1997; Witt, 1991). Mediation of POS–outcome relationships by felt obligation, together with the moderation of these associations by employee exchange ideology, indicates that reciprocity is a basic mechanism contributing to POS's associations with various behavioral outcomes.

Fulfillment of Socioemotional Needs

Similar to the needs-fulfilling role served by perceived support from friends and relatives in everyday life (Cobb, 1976; S. Cohen & Wills, 1985), organizational support theory supposes that POS meets needs for emotional support, affiliation, esteem, and approval. According to Gouldner (1960), the obligation to reciprocate favorable treatment increases with the benefit's value, including the benefit's relevance to the recipient's specific needs. Therefore, the obligation to repay POS with enhanced performance should be greater among employees with high socioemotional needs. Accordingly, police patrol officers who had higher needs for approval, esteem, emotional support, or affiliation showed a stronger relationship of POS with DUI arrests and issuance of speeding tickets (Armeli et al., 1998).

Additional evidence of POS's socioemotional function comes from findings that POS was negatively associated with strains experienced in the workplace (Cropanzano et al., 1997; Robblee, 1998; Venkatachalam, 1995), that POS lessened the relationship between nurses' degree of contact with AIDS patients and negative mood (George et al. 1993), and that perceived support within the organization, as opposed to support from family and friends, reduced the negative relationship between British pub employees' receipt of threats and violence and these employees' experienced well-being (Leather, Lawrence, Beale, & Cox, 1998). Thus, POS may be especially helpful in reducing the traumatic consequences of stressors at work.

Contribution of POS to Performance-Reward Expectancies

According to organizational support theory, the relationship between performance-reward expectancies and POS should be reciprocal (Eisenberger et al., 1986; Shore & Shore, 1995). Favorable opportunities for rewards convey the organization's positive valuation of employees' contributions and thus contribute to POS (cf. Gaertner & Nollen, 1989). POS, in turn, increases employees' expectancies that high performance will be rewarded. Consistent with these views, our meta-analysis found that opportunities for greater recognition, pay, and promotion are positively associated with POS. Additional research is needed concerning the mediating role of reward expectancies in the relationship between POS and performance.

Conclusion

Organizational support theory supposes that employees personify the organization, infer the extent to which the organization

values their contributions and cares about their well-being, and reciprocate such perceived support with increased commitment, loyalty, and performance. On the basis of these assumptions, organizational support theory provides a general approach to the role of the reciprocity norm in employee–employer relationships. Most studies of POS have been devoted to amplifying its antecedents and consequences. Our review of over 70 studies suggests that basic antecedents of POS include fair organizational procedures, supervisor support, and favorable rewards and job conditions and that consequences include increased affective commitment to the organization, increased performance, and reduced withdrawal behaviors.

More recent studies have examined (a) the mediating role of POS in the relationship between various types of favorable treatment and outcomes that are beneficial to employees and the organization, (b) the direction of causality in the relationship of POS with antecedents and consequences, and (c) the processes presumed to underlie such associations. These studies are supportive of organizational support theory. The distinctive, clearly specified processes supposed by organizational support theory provide the basis for future evaluation and elaboration of this basic approach to employee–employer relationships.

References

- References marked with an asterisk indicate studies included in the meta-analysis.
- *Allen, D., Shore, L., & Griffeth, R. (1999). *A model of perceived organizational support*. Unpublished manuscript, University of Memphis and Georgia State University.
- *Allen, M. W. (1992). Communication and organizational commitment: Perceived organizational support as a mediating factor. *Communication Quarterly*, 40, 357–367.
- *Allen, M. W. (1995). Communication concepts related to perceived organizational support. *Western Journal of Communication*, 59, 326–346.
- Andrews, M. C., & Kacmar, K. M. (2001). Discriminating among organizational politics, justice, and support. *Journal of Organizational Behavior*, 22, 347–366.
- *Aquino, K., & Griffeth, R. W. (1999). *An exploration of the antecedents and consequences of perceived organizational support: A longitudinal study*. Unpublished manuscript, University of Delaware and Georgia State University.
- *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, 288–297.
- *Armstrong-Stassen, M. (1997). The effect of repeated downsizing and surplus designation on remaining managers: An exploratory study. *Anxiety, Stress and Coping: An International Journal*, 10, 377–384.
- *Armstrong-Stassen, M. (1998). Downsizing the federal government: A longitudinal study of managers' reactions. *Canadian Journal of Administrative Sciences*, 15, 310–321.
- Bateman, T. S., & Organ, D. W. (1983). Job satisfaction and the good soldier: The relationship between affect and employee "citizenship." *Academy of Management Journal*, 26, 587–595.
- Becker, B. J. (1994). Combining significance levels. In H. Cooper & L. V. Hedges (Eds.), *The handbook of research synthesis* (pp. 215–230). New York: Russell Sage Foundation.
- Blau, P. M. (1964). *Exchange and power in social life*. New York: Wiley.
- Brief, A. P., & Motowidlo, S. J. (1986). Prosocial organizational behaviors. *Academy of Management Review*, 11, 710–725.
- *Cleveland, J. N., & Shore, L. M. (1992). Self-perspectives and supervisory perspectives on age and work attitudes and performance. *Journal of Applied Psychology*, 77, 469–484.
- Cobb, S. (1976). Social support as a moderator of life stress. *Psychosomatic Medicine*, 38, 300–314.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.
- Cohen, S., & Wills, T. A. (1985). Stress, social support and the buffering hypothesis. *Psychological Bulletin*, 98, 310–357.
- Cooper, H. (1998). *Synthesizing research: A guide for literature reviews* (3rd ed.). Thousand Oaks, CA: Sage.
- Costa, P. T., Jr., & McCrae, R. R. (1985). *The NEO Personality Inventory*. Odessa, FL: Psychology Assessment Resources.
- Cotterell, N., Eisenberger, R., & Speicher, H. (1992). Inhibiting effects of reciprocity wariness on interpersonal relationships. *Journal of Personality and Social Psychology*, 62, 658–668.
- Cropanzano, R., & Greenberg, J. (1997). Progress in organizational justice: Tunneling through the maze. In C. L. Cooper & I. T. Robertson (Eds.), *International review of industrial and organizational psychology* (Vol. 12, pp. 317–372). Oxford, England: Wiley.
- *Cropanzano, R., Howes, J. C., Grandey, A. A., & Toth, P. (1997). The relationship of organizational politics and support to work behaviors, attitudes, and stress. *Journal of Organizational Behavior*, 22, 159–180.
- *Daly, C. L. (1998). *Explaining the extra-role behavior of part-time and full-time workers: A matter of support?* Unpublished doctoral dissertation, Michigan State University.
- *Davis-LaMastro, V. A. (1995). *Factors affecting professional commitment, organizational commitment, and perceived organizational support in a sample of educators*. Unpublished doctoral dissertation, University of Delaware.
- *Dawson, C. L. (1996). *Dispositional and attitudinal explanations of counterproductivity in the workplace*. Unpublished doctoral dissertation, University of California, Berkeley.
- *Dekker, I., & Barling, J. (1995). Workforce size and work-related role stress. *Work and Stress*, 9, 45–54.
- *Eisenberger, R., Armeli, S., Rexwinkel, B., Lynch, P. D., & Rhoades, L. (2001). Reciprocity of perceived organizational support. *Journal of Applied Psychology*, 86, 42–51.
- Eisenberger, R., Cotterell, N., & Marvel, J. (1987). Reciprocity ideology. *Journal of Personality and Social Psychology*, 53, 743–750.
- *Eisenberger, R., Cummings, J., Armeli, S., & Lynch, P. (1997). Perceived organizational support, discretionary treatment, and job satisfaction. *Journal of Applied Psychology*, 82, 812–820.
- *Eisenberger, R., Fasolo, P., & Davis-LaMastro, V. (1990). Perceived organizational support and employee diligence, commitment, and innovation. *Journal of Applied Psychology*, 75, 51–59.
- *Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology*, 71, 500–507.
- *Eisenberger, R., Rhoades, L., & Cameron, J. (1999). Does pay for performance increase or decrease perceived self-determination and intrinsic motivation? *Journal of Personality and Social Psychology*, 77, 1026–1040.
- Eisenberger, R., Stinglhamber, F., Vandenberghe, C., Sucharski, I., & Rhoades, L. (in press). Perceived supervisor support: Contributions to perceived organizational support and employee retention. *Journal of Applied Psychology*.
- Etzioni, A. (1961). *A comparative analysis of complex organizations*. New York: Free Press.
- Ferris, G. R., & Kacmar, K. M. (1992). Perceptions of organizational politics. *Journal of Management*, 18, 93–116.
- *Flett, G. L., Hewitt, P. L., & Hallett, C. J. (1995). Perfectionism and job stress in teachers. *Canadian Journal of School Psychology*, 11, 32–42.
- Foa, E. B., & Foa, U. G. (1980). Resource theory: Interpersonal behavior

- as exchange. In K. Gergen, M. S. Greenberg, & R. Willis (Eds.), *Social exchange: Advances in theory and research* (pp. 77–94). New York: Plenum Press.
- Gaertner, K. N., & Nollen, S. D. (1989). Career experiences, perceptions of employment practices, and psychological commitment to the organization. *Human Relations*, 42, 975–991.
- Geller, L. (1982). The failure of self-actualization therapy: A critique of Carl Rogers and Abraham Maslow. *Journal of Humanistic Psychology*, 22, 56–73.
- George, J. M. (1989). Mood and absence. *Journal of Applied Psychology*, 74, 317–324.
- George, J. M., & Brief, A. P. (1992). Feeling good—doing good: A conceptual analysis of the mood at work—organizational spontaneity relationship. *Psychological Bulletin*, 112, 310–329.
- *George, J. M., Reed, T. F., Ballard, K. A., Colin, J., & Fielding, J. (1993). Contact with AIDS patients as a source of work-related distress: Effects of organizational and social support. *Academy of Management Journal*, 36, 157–171.
- Gould, S. (1979). An equity-exchange model of organizational involvement. *Academy of Management Review*, 4, 53–62.
- Gouldner, A. W. (1960). The norm of reciprocity: A preliminary statement. *American Sociological Review*, 25, 161–178.
- Greenberg, J. (1990). Organizational justice: Yesterday, today and tomorrow. *Journal of Management*, 16, 399–432.
- *Greenup, P. E. (1997). *Individual and system determinants of organizational citizenship behaviors in clinical laboratories*. Unpublished doctoral dissertation, University of Alabama at Birmingham.
- *Guzzo, R. A., Noonan, K. A., & Elron, E. (1994). Expatriate managers and the psychological contract. *Journal of Applied Psychology*, 79, 617–626.
- *Harris, K. A. (1995). *Variables related to supervisory confrontation and referral of employees to Employee Assistance Programs*. Unpublished doctoral dissertation, Wayne State University.
- Hedges, L. V., & Olkin, I. (1985). *Statistical methods for meta-analysis*. Orlando, FL: Academic Press.
- *Hofmann, D. A., & Morgeson, F. P. (1999). Safety-related behavior as a social exchange: The role of perceived organizational support and leader-member exchange. *Journal of Applied Psychology*, 84, 286–296.
- Hogan, R. (1975). Theoretical egocentrism and the problem of compliance. *American Psychologist*, 30, 533–540.
- Hrebiniak, L. G., & Alutto, J. A. (1972). Personal and role-related factors in the development of organizational commitment. *Administrative Science Quarterly*, 17, 555–572.
- Hunter, J. E., & Schmidt, H. L. (1990). *Methods of meta-analysis: Correcting for sources of error and bias in research findings*. Newbury Park, CA: Sage.
- *Hutchison, S. (1997a). A path model of perceived organizational support. *Journal of Social Behavior and Personality*, 12, 159–174.
- *Hutchison, S. (1997b). Perceived organizational support: Further evidence of construct validity. *Educational and Psychological Measurement*, 57, 1025–1034.
- *Hutchison, S., & Garstka, M. (1996). Sources of perceived organizational support: Goal setting and feedback. *Journal of Applied Social Psychology*, 26, 1351–1366.
- *Hutchison, S., Valentino, K. E., & Kirkner, S. L. (1998). What works for the gander does not work as well for the goose: The effects of leader behavior. *Journal of Applied Social Psychology*, 28, 171–182.
- Johnson, B. T. (1993). *DSTAT 1.10: Software for the meta-analytic review of research literatures* [Software and manual]. Hillsdale, NJ: Erlbaum.
- *Jones, B., Flynn, D. M., & Kelloway, E. K. (1995). Perception of support from the organization in relation to work stress, satisfaction, and commitment. In S. L. Sauter & L. R. Murphy (Eds.), *Organizational risk factors for job stress* (pp. 41–52). Washington, DC: American Psychological Association.
- Jöreskog, K. G., & Sörbom, D. (1993). *LISREL 8: User's reference guide*. Chicago: Scientific Software.
- Kacmar, K. M., & Carlson, D. S. (1997). Further validation of the Perceptions of Politics Scale (POPS): A multiple sample investigation. *Journal of Management*, 23, 627–658.
- *Kottke, J. L., & Sharafinski, C. E. (1988). Measuring perceived supervisory and organizational support. *Educational and Psychological Measurement*, 48, 1075–1079.
- *Ladd, D. (1997). *Do two dimensions of OCBs have different correlates?* Unpublished master's thesis, Purdue University.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer.
- Leather, P., Lawrence, C., Beale, D., & Cox, T. (1998). Exposure to occupational violence and the buffering effects of intra-organizational support. *Work and Stress*, 12, 161–178.
- Levinson, H. (1965). Reciprocity: The relationship between man and organization. *Administrative Science Quarterly*, 9, 370–390.
- *Lynch, P., Eisenberger, R., & Armeli, S. (1999). Perceived organizational support: Inferior-versus-superior performance by wary employees. *Journal of Applied Psychology*, 84, 467–483.
- *Malatesta, R. M. (1995). *Understanding the dynamics of organizational and supervisory commitment using a social exchange framework*. Unpublished doctoral dissertation, Wayne State University.
- March, J. G., & Simon, H. A. (1958). *Organizations*. New York: Wiley.
- *Masterson, S. S. (1998). *A "trickle-down" model of organizational justice: Relating employee and customer perceptions of and reactions to organizational fairness*. Unpublished doctoral dissertation, University of Maryland.
- Mathieu, J. E., & Zajac, D. (1990). A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment. *Psychological Bulletin*, 108, 171–194.
- Meyer, J. P., & Allen, N. J. (1997). *Commitment in the workplace: Theory, research and application*. Thousand Oaks, CA: Sage.
- Miceli, M. P., & Mulvey, P. W. (2000). Consequences of satisfaction with pay systems: Two field studies. *Industrial Relations*, 39, 62–87.
- *Moorman, R. H., Blakely, G. L., & Niehoff, B. P. (1998). Does perceived organizational support mediate the relationship between procedural justice and organizational citizenship behavior? *Academy of Management Journal*, 41, 351–357.
- Mowday, R. T., Porter, L. W., & Steers, R. M. (1982). *Organizational linkages: The psychology of commitment, absenteeism, and turnover*. San Diego, CA: Academic Press.
- *Nye, L. G., & Witt, L. A. (1993). Dimensionality and construct-validity of the Perceptions of Organizational Politics Scale (POPS). *Educational and Psychological Measurement*, 53, 821–829.
- *O'Driscoll, M. P., & Randall, D. M. (1999). Perceived organisational support, satisfaction with rewards, and employee job involvement and organisational commitment. *Applied Psychology: An International Review*, 48, 197–209.
- Organ, D. W., & Konovsky, M. (1989). Cognitive versus affective determinants of organizational citizenship behavior. *Journal of Applied Psychology*, 74, 157–164.
- *Randall, D. M., & O'Driscoll, M. P. (1997). Affective versus calculative commitment: Human resource implications. *Journal of Social Psychology*, 137, 606–617.
- *Randall, M. L., Cropanzano, R., Bormann, C. A., & Birjulin, A. (1999). Organizational politics and organizational support as predictors of work attitudes, job performance, and organizational citizenship behavior. *Journal of Organizational Behavior*, 20, 159–174.
- *Rhoades, L., Eisenberger, R., & Armeli, S. (2001). Affective commitment to the organization: The contribution of perceived organizational support. *Journal of Applied Psychology*, 86, 825–836.
- *Robblee, M. (1998). *Confronting the threat of organizational downsizing:*

- Coping and health*. Unpublished master's thesis, Carleton University, Ottawa, Ontario, Canada.
- *Rogg, K. L. (1997). *Organizational commitment in the post-loyalty era: Perceived organizational support, multiple commitments, and other antecedents' effects on turnover intentions and job performance*. Unpublished doctoral dissertation, Kansas State University.
- *Rosenblatt, Z., & Ruvio, A. A. (1996). Test of a multidimensional model of job insecurity: The case of Israeli teachers. *Journal of Organizational Behavior*, 17, 587–605.
- Rosenthal, R. (1979). The "file drawer problem" and tolerance for null results. *Psychological Bulletin*, 86, 638–641.
- *Scher, S. L. (1991). *Psychologists in state psychiatric settings: Attributional style, self-efficacy, and perceived organizational support as correlates of job satisfaction and burnout*. Unpublished doctoral dissertation, Hofstra University.
- *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.
- *Shore, L. M., & Barksdale, K. (1998). Examining degree of balance and level of obligation in the employment relationship: A social exchange approach. *Journal of Organizational Behavior*, 19, 731–744.
- Shore, L. M., & Shore, T. H. (1995). Perceived organizational support and organizational justice. In R. S. Cropanzano & K. M. Kacmar (Eds.), *Organizational politics, justice, and support: Managing the social climate of the workplace* (pp. 149–164). Westport, CT: Quorum.
- *Shore, L. M., & Tetrick, L. E. (1991). A construct validity study of the Survey of Perceived Organizational Support. *Journal of Applied Psychology*, 76, 637–643.
- *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, 774–780.
- Steers, R. M. (1977). Antecedents and outcomes of organizational commitment. *Administrative Science Quarterly*, 22, 46–56.
- *Venkatachalam, M. (1995). *Personal hardiness and perceived organizational support as links in the role stress-outcome relationship: A person-environment fit model*. Unpublished doctoral dissertation, University of Alabama.
- Viswesvaran, C., & Ones, D. (1995). Theory testing: Combining psychometric meta-analysis and structural equation modeling. *Personnel Psychology*, 48, 865–885.
- Viswesvaran, C., Sanchez, J. I., & Fisher, J. (1999). The role of social support in the process of work stress: A meta-analysis. *Journal of Vocational Behavior*, 54, 314–334.
- Watson, D., & Clark, L. A. (1984). Negative affectivity: The disposition to experience aversive emotional states. *Psychological Bulletin*, 96, 465–490.
- *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.
- *Welchans, T. D. (1995). *The effects of telecommuting and communication media on perceived value congruence, organizational support and job satisfaction*. Unpublished doctoral dissertation, Ohio State University, Columbus.
- *Witt, L. A. (1991). Exchange ideology as a moderator of job-attitudes-organizational citizenship behaviors relationships. *Journal of Applied Social Psychology*, 21, 1490–1501.
- *Witt, L. A. (1992). Exchange ideology as a moderator of the relationships between importance of participation in decision-making and job-attitudes. *Human Relations*, 45, 73–85.
- *Witt, L. A., & Hellman, C. (1992). Effects of subordinate feedback to the supervisor and participation in decision-making in the prediction of organizational support (FAA-AM Publication No. 92-13, pp. 1–7). Washington, DC: Federal Aviation Administration, Office of Aviation Medicine.
- *Witt, L. A., & Nye, L. G. (1992). Organizational goal congruence and job attitudes revisited (FAA-AM Publication No. 92-8, pp. 92–98). Washington, DC: Federal Aviation Administration, Office of Aviation Medicine.
- *Yoon, J., Han, N.-C., & Seo, Y.-J. (1996). Sense of control among hospital employees: An assessment of choice process, empowerment, and buffering hypotheses. *Journal of Applied Psychology*, 26, 686–716.
- *Yoon, J., & Lim, J. C. (1999). Organizational support in the workplace: The case of Korean hospital employees. *Human Relations*, 52, 923–945.

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