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Does high quality leader–member exchange accentuate the effects of organizational justice?

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The current study examined interactions between leader–member exchange (LMX) and two dimensions of organizational justice—procedural and interpersonal. Results from a study of full-time employees ($n=283$) in a diverse set of job types provide support for the notion that a high quality leader–member relationship (i.e., LMX) enhances the strength of the relationships between procedural and interpersonal justice and a variety of outcomes. Specifically, procedural and interpersonal justice perceptions were significantly associated with an employee's felt obligation to the organization, but only when that employee reported high quality relationships with their supervisors. Results of this study extend research that attempts to integrate the organizational justice and leadership literatures.

Keywords: Leadership; Leader–member exchange; Organizational justice; Procedural justice; Trust.

A recent trend in the study of organizational justice is the integration of leadership theory and models of leader behaviour. Indeed, a number of reviews have attempted to bridge the literatures in leadership and justice by highlighting theoretical overlap between the two concepts (e.g., Colquitt & Greenberg, 2003; Scandura, 1999), and noting that popular definitions in the leadership domain (e.g., ethical leadership; Brown, Treviño & Harrison, 2005) include behaviours by a supervisor that are fair, ethical and just. Studies that integrate leadership and justice suggest that leader behaviours

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are direct antecedents of justice perceptions (e.g., Lipponen, Koivisto, & Olkkonen, 2005), justice perceptions are enhanced with the expression of positive and high quality leadership (e.g., De Cremer, 2006), or that justice is a mechanism by which leader effects are realized (e.g., Pillai, Schreisheim, & Williams, 1999).

In addition, several studies have attempted to determine which aspects of organizational justice (i.e., procedural or interpersonal) provide meaningful interactions with leadership style in the prediction of work outcomes. Procedural justice is defined as one's perceptions that organizational procedures used to make decisions are fair (Folger & Greenberg, 1985), while interpersonal justice involves the dignity and respect with which one is treated by one's supervisor (Bies & Moag, 1986; Colquitt, 2001). In general, studies of leadership and justice dimensions draw one of two conclusions: (1) Favourable employee attitudes result when fair procedures are enacted by the leader (e.g., Lipponen, et al., 2005), or (2) the strength of observed justice effects vary with the particular leadership style of interest (e.g., team orientation; Erdogan, Liden, & Kraimer, 2006). These studies tend to rely on theories of leadership and social exchange to explain how and when leadership styles interact with justice perceptions to shape attitudes and behaviours.

However, while these early studies provide useful information about the relationship between leadership and justice, additional work is needed. For one, many of the early studies have been conducted in the lab, with manipulations of specific aspects of procedural or distributive justice (e.g., De Cremer & van Knippenberg, 2002), and an examination of a relatively limited set of dependent variables (e.g., team satisfaction; Philips, Douthitt, & Hyland, 2001). Second, while several studies have drawn from specific patterns of leader behaviour (e.g., transformational; De Cremer, 2006), no study to our knowledge has yet to consider a follower's relationship with his or her supervisor in the form of leader–member exchange (LMX). Third, a consistent pattern for the interaction between leadership and justice has yet to emerge. In some cases, justice effects are strongest in the presence of *low* quality leadership behaviour (e.g., noncharismatic; De Cremer & van Knippenberg, 2002), such that unfavourable leadership heightens a follower's attention to organizational injustice. Other studies, however, have suggested that justice is more meaningful when *high* quality leadership styles are enacted. Lipponen et al. (2005), for example, found that interactional justice was strongest in the prediction of group members' pride when leaders displayed attitudes, values, and manners that were representative of the group (i.e., leader prototypicality).

As such, a central question in the study of leadership and justice remains unanswered: Does high quality leadership (i.e., leader–member exchange) accentuate or attenuate the effects of organizational injustice? In that vein, the purpose of the current study was to examine the nature of the interaction

between LMX and organizational justice and to suggest that LMX accentuates the effects of organizational justice. Specifically, we build on prior research by testing our hypotheses in the field, assessing previously unexamined outcomes (e.g., felt obligation, organizational citizenship—OCB, and withdrawal), examining leader–member exchange (LMX), and testing the interaction between LMX and two dimensions of organizational justice—procedural and interpersonal. In the following sections, we provide a brief summary of the relevant literatures in the justice and leadership domains.

ORGANIZATIONAL JUSTICE

Perceptions of organizational justice are important determinants of employee judgements about the work environment. Many studies on organizational justice provide evidence for the value of justice perceptions in shaping an employee's work experience including expressions of job satisfaction (e.g., Christopher & Bennett, 1996), organizational commitment (e.g., Pillai et al., 1999), perceived organizational support (e.g., Wayne, Shore, Bommer, & Tetrick, 2002), burnout (e.g., Vermunt & Steensma, 2003), stress (e.g., Judge & Colquitt, 2004), and turnover intentions (e.g., Aquino, Griffith, Allen, & Hom, 1997). In a comprehensive meta-analytic review of the justice literature, Colquitt, Conlon, Wesson, Porter, and Ng (2001) concluded that judgements by employees of the fairness of outcome distributions (distributive justice), the fairness of the procedures used to make these distributions (procedural justice), and the fairness by which employees are treated by supervisors (interpersonal and informational justice) are significantly associated with how employees come to feel about the organization (e.g., affective commitment), how they feel about their supervisors (e.g., trust and satisfaction with the leader), and how those feelings are ultimately revealed in work-oriented behaviours (e.g., motivation and task performance).

Drawing most often on models of social exchange (Blau, 1964), research in the justice domain has explained links between justice and important work-oriented criteria by citing an employee's willingness to reciprocate fair treatment by a supervisor or other members of the institution (for a review, see Cropanzano, Prehar, & Chen, 2002). According to a social exchange perspective, when employees experience events characterized by high levels of fair treatment, those employees feel the need to reciprocate that treatment, making them more likely to engage in activities that enhance the organizational environment (e.g., organizational citizenship; Moorman, Blakely, & Niehoff, 1998) and less likely to engage in behaviours that interrupt positive group and organizational functioning (e.g., organizational politics; Byrne, 2005; deviant workplace behaviours; Berry, Ones, & Sackett, 2007).

In general, fair treatment of employees by supervisors and by other members of the organization fosters a sense of legitimacy for the supervisor and for the organization itself (Tyler, 2006), a legitimacy that often translates into a felt obligation among employees to reciprocate good will. Further, workplaces characterized by fair processes and fair treatment by organizational leaders are less likely to arouse feelings of stress among organizational members (Judge & Colquitt, 2004; Vermunt & Steensma, 2003), and less likely to encourage employees to withdrawal emotionally from their work groups (Moorman & Byrne, 2005). Thus, drawing on central assertions in social exchange theory and on the broad empirical support that exists for the value of supervisor- and organization-based judgements of justice, we offer the following hypotheses:

Hypothesis 1: Perceptions of procedural justice will be (a) positively associated with felt obligation, (b) positively associated with organizational citizenship behaviours, and (c) negatively associated with withdrawal behaviours.

Hypothesis 2: Perceptions of interpersonal justice will be (a) positively associated with felt obligation, (b) positively associated with organizational citizenship behaviours, and (c) negatively associated with withdrawal behaviours.

While we expect both procedural and interpersonal justice to be positively associated with felt obligation and OCB, and negatively related to withdrawal behaviour, there is reason to believe that the relationships involving procedural justice should be stronger (see Cropanzano et al., 2002). For example, the *two-factor* model of justice posits that procedural justice is more strongly related to organization-referenced outcomes (such as the ones assessed in this study) (Sweeney & McFarlin, 1993). And, the *agent-system* model posits that interpersonal justice is more strongly associated with supervisor-referenced outcomes than organizationally referenced outcomes (Masterson, Lewis, Goldman, & Taylor, 2000). Colquitt et al.'s (2001) meta-analysis found general support for these two models as procedural justice tended to have a stronger relationship with organization-referenced outcomes (e.g., feeling committed to the organization, OCB aimed to help one's organization), whereas interpersonal justice tended to have stronger relationships with supervisor-referenced outcomes (e.g., satisfaction with one's supervisor, OCB directed towards one's supervisor). Thus, we predict the following:

Hypothesis 3: Relationships between perceptions of procedural justice and the outcomes will be stronger than the relationships between interpersonal justice and the outcomes.

Of course, the primary contribution of the present study lies not in testing Hypotheses 1–3 but rather in exploring whether or not high quality leader–member relationships provide a boundary condition on the effects of justice perceptions.

BOUNDARY CONDITIONS ON ORGANIZATIONAL JUSTICE

As research in organizational justice has evolved, several studies have considered the underlying mechanisms (i.e., mediators) by which justice effects are revealed. In general, these studies suggest that perceptions of justice have an impact through social exchange mechanisms such as felt obligation (Tyler, 2006) or perceived organizational support (POS; Masterson et al., 2000). Moorman et al. (1998), for example, drew on elements in social exchange (e.g., trust, POS) to explain the link between justice perceptions and organizational citizenship, while Murphy, Wayne, Liden, and Erdogan (2003) argued that team–member exchange (TMX), or the quality of relationships among team members, would mediate relationships between interactional justice and social loafing. In general, the positive effects of procedural and interactional justice are robust across criteria and are often realized through social exchange processes.

That said, while perceptions of organizational justice indeed have a number of important consequences, many of which rely on models of social exchange, there is some variability in the way that individuals respond to both just and unjust events in the workplace. Erdogan and Liden (2006), for example, in a study of manufacturing employees in Turkey, found that relationships among justice dimensions, ingratiation behaviours, and perceptions of relationship quality (in terms of LMX) were dependent on an employee's self-reported level of collectivism. As evidence by this study, although fair outcomes, fair procedures, and dignified interactions yield positive results in general, boundary conditions on the effects of justice do indeed exist.

In that vein, Colquitt, Scott, Judge, and Shaw (2006) drew on three separate theories in the justice literature (i.e., fairness heuristic theory, uncertainty management theory, and fairness theory) to provide a framework for how stable individual differences moderate justice effects. According to Colquitt et al., certain personality traits (e.g., trust propensity) may make one more (or less) sensitive to justice events in the workplace, and could alter an individual's perception and interpretation of interactions or events. An employee with a positive disposition (e.g., positive affect) and naturally high propensity to trust others, for example, may be unaffected by a relatively minor unfair exchange with her supervisor, whereas the same event could yield a much stronger reaction from an individual who is more

inclined to experience negative emotion (e.g., neuroticism, anxiety) and less likely to be trusting of those in positions of authority.

Consistent with Colquitt et al.'s (2006) framework, Brockner, De Cremer, van de Bos, and Chen (2005), in three separate experimental studies, reported that those who maintain a high interdependent self-construal were more sensitive to aspects of procedural justice than those who maintain a low interdependent self-construal. Interdependent self-construal (ISC) is a level of self-identity, such that those with high ISC see themselves as closely connected to others, and define themselves in terms of their social contexts and relationships with others. According to Brockner et al., the effects of voice and interpersonal treatment were particularly strong for those who closely identified with others in the immediate social context.

Similarly, in a study of 295 factory employees in Germany, Schmitt and Dorfel (1999) found that justice sensitivity moderated the relationship between procedural justice and psychosomatic well-being—those with high scores on an intrusiveness measure of justice sensitivity were more adversely affected by procedural injustice than those with low scores on the same scale. These studies are consistent with others which have noted that the effects of justice vary based on stable individual differences including power distance (Begley, Lee, Fang, & Li, 2002), equity sensitivity (Blakely, Andrews, & Moorman, 2005), social self-esteem (De Cremer, van Knippenberg, van Dijke, & Bos, 2004), openness to change (Fisher & Smith, 2006), agreeableness and negative affectivity (Skarlicki, Folger, & Tesluk, 1999).

Beyond individual differences, effects of fair procedures and perceptions of organizational justice depend on aspects of the work context, including the nature, structure, and size of the organization itself. Ambrose and Schminke (2003), in a study of 510 professionals across a variety of industries, found that the link between interactional justice and supervisor trust was particularly strong in organizations with an organic structure, where authority is decentralized and formal rules are loosely defined, while the link between procedural justice and perceived organizational support was particularly strong in mechanistic organizations, which are characterized by tight bureaucracies and clearly defined standards for behaviour. According to the authors, mechanistic organizations are structured with a set of unambiguous rules that protect and ensure fair treatment for organizational members, making a supervisor's expression of procedural justice less meaningful. Thus, the nature of the organization (organic vs. mechanistic) shaped the utility of justice perceptions in explaining variance in perceptions of supervisory trust.

Consistent with these ideas, several studies have noted that relationships between justice concepts and important individual outcomes (e.g., trust, perceived organizational support) vary with tangible aspects of the work environment including organization level (Begley, Lee, & Hui, 2006), task

type (Colquitt, 2001), and organizational culture (Erdogan et al., 2006). Thus, while each dimension of organizational justice has a clear and compelling impact on a number of important outcomes, individual differences and organizational characteristics provide boundary conditions on observed effects. As such, we consider relationship quality between supervisor and subordinate (i.e., leader–member exchange, LMX) as a potential aspect of the work context that shapes the relationship between organizational justice and organization-referenced outcomes.

In the following section, we provide a brief overview of the link between organizational justice and leadership, and offer hypotheses regarding the moderating role of LMX.

JUSTICE AND LEADER–MEMBER EXCHANGE

Whereas just behaviour and fair treatment of subordinates has always been a central part of the leadership concept, the literatures in leadership and organizational justice have developed relatively independent of each other. Until recently (e.g., De Cremer & Tyler, in press), little empirical study has considered overlap between similar concepts in leadership and justice (e.g., consideration and interactional justice), the extent to which leader effectiveness depends on the perception of organization- or leader-referenced fairness, or the interaction of justice judgements and leadership style. Recently, however, in response to the call by Colquitt and Greenberg (2003) for more studies that integrate the two streams of research, the unique and complementary contributions of leadership and justice are now being explored (for an overview and summary, see van Knippenberg, De Cremer, & van Knippenberg, 2007).

As studies of leadership and organizational justice continue to emerge, one common approach is to recognize that the two concepts are closely related, and that popular models of leader behaviour (e.g., Ohio State Studies) reflect elements of both interpersonal and procedural justice (Judge, Piccolo, & Ilies, 2004). More interesting, however, are examinations of how leader effectiveness depends on the enactment of fair procedures (Tyler & De Cremer, 2005), or how perceptions of fairness are shaped by specific leadership behaviours (e.g., De Cremer, 2006). In a recently published series of experimental studies, De Cremer (2006) found that procedural justice had an influence on followers' negative affect and organization-based self esteem, but only when a leader displayed behaviours that were consistent with the transformational pattern (Bass, 1985). According to De Cremer, transformational leaders make aspects of organizational justice salient and important for their followers.

Similar results were reported by Lipponen et al. (2005), who found that interactional justice was particularly important when the group's leader

displayed attitudes and values that were prototypical of the group. Drawing on a group-value model of social identity, which posits that justice events provide information to an employee about his or her status in the work group, Lipponen et al. noted, “the fairness of the ingroup leader has a stronger effect than the fairness of the outgroup leader” (p. 524). In sum, these studies rely, in part, on the notion that exceptional leaders—in terms of their confidence, charisma, and leadership style—motivate followers to focus on aspects of procedural and interpersonal fairness (De Cremer & Tyler, *in press*), thus enhancing the utility of organizational justice.

Drawing on that idea, we assert that high quality leader–member relations (i.e., high LMX) are likely to accentuate the effect of justice judgements among both leaders and followers. Many of the central tenets in models of leader–member exchange are derived from Social Exchange Theory (Blau, 1964), which suggests that individuals, in order to maximize their own personal benefit, take a rational, cost–benefit approach to the formation of relationships with others. As these relationships evolve over time, through a series of interpersonal exchanges, patterns of reciprocal obligation are developed such that meaningful contributions to the relationship by one party are expected to be comparatively reciprocated by the other (Emerson, 1976). For a modern review of social exchange theory, see Cropanzano and Mitchell (2005).

In this sense, employees who have high quality relationships with their leaders have high expectations for how they should be treated by the organization and its agents, in terms of fairness, equity, and respect (Graen & Uhl-Bien, 1995). These expectations are likely to make justice (and injustice) more salient, such that high expectations for considerate and dignified interactions with the leader make followers particularly sensitive to events that are characterized by low interpersonal or procedural justice. As such, we find it reasonable to assert that fair procedures in the organization and respectful interactions with co-workers will be particularly salient for those followers who maintain high quality LMX relationships with their supervisor.

In addition, we draw on the notion that high quality LMX fosters trust between leader and follower (Graen & Uhl-Bien, 1995)—trust that “provides the condition under which cooperation, higher performance, and/or more positive attitudes and perceptions are likely to occur” (Dirks & Ferrin, 2001, p. 455). While aspects of procedural justice (e.g., voice) are generally interpreted as meaningful by subordinates, the impact of just behaviours depend in part on the trustworthiness of the source of justice (see De Cremer & Tyler, 2007). In four related studies (two experimental and two field), De Cremer and Tyler (2007) observed that the link between procedural justice and cooperative behaviour was moderated by trust in a supervisor. According to the authors, “the effect of procedural fairness

emerged primarily when trust in the authority was high” (p. 646). The authors also noted, “trust in authority acts as an important moderator of procedural fairness, [a] finding [that] corroborates the argument of Van den Bos (2001)” (p. 646).

In addition, high quality relationships with a supervisor (i.e., high LMX) lead to positive feelings about one’s connection to the leader (Gerstner & Day, 1997), to his or her immediate work group (Cogliser & Schreisheim, 2000), and to the organization as a whole (Tangirala, Green, & Ramanujam, 2007). Indeed, effective supervisor–subordinate relationships are characterized (in part) by the follower’s identification with the leader and the immediate work group (van Knippenberg & Hogg, 2003). Feelings of identification and connectedness often enhance the value of organizational policies and the utility of supervisory behaviour. As Byrne (2001) found in a study of industrial work teams, the relationship between interactional fairness and perceived co-worker support was strongest when employees felt a sense of “connection” to the group, the supervisor, and the organization.

Lastly, we expect that low quality LMX relationships, characterized by ineffectiveness and low trust, are likely to offset the positive effects of procedural and interpersonal forms of justice. Indeed, LMX is regarded as a proxy for interpersonal trust (Dirks & Ferrin, 2002), and we suggest that the implementation of fair organizational procedures will be less effective at arousing favourable reactions among employees who have little trust in their immediate supervisors. In three of the four studies conducted by DeCremer and Tyler (2007), “procedural fairness had no effect [on cooperative behaviour] when trust in the authority was low” (p. 646). Thus, in the absence of trust in the integrity or benevolence of a supervisor’s behaviour, fair organizational policies are likely to have little impact on an employee’s obligation to the firm. As the effects of justice appear to depend on the trustworthiness of its source, we offer the following hypotheses:

Hypothesis 4: Leader–member exchange will moderate relationships between procedural justice and (a) felt obligation, (b) organizational citizenship, and (c) withdrawal, such that the effects of procedural justice will be stronger in the presence of high quality LMX relationships than in low quality relationships between supervisor and subordinates.

Hypothesis 5: Leader–member exchange will moderate relationships between interpersonal justice and (a) felt obligation, (b) organizational citizenship, and (c) withdrawal, such that the effects of interpersonal justice will be stronger in high quality LMX relationships than in low quality relationships between supervisors and subordinates.

Consistent with the rationale provided earlier regarding the agent-system model and a two-factor model of procedural and interpersonal justice, we

expect the interactions involving procedural justice to be stronger than those involving interpersonal justice.

METHOD

Sample and procedure

The sample included 283 individuals from a broad cross-section of job types including administration/support (11%), web design and computer networking/technology (10%), and education/training (9%). The sample was 44% male and 56% female with an average age of 34 years. Participants averaged 7 years in their current job and 78% were Caucasian. Participants were recruited from the StudyResponse service (www.studyresponse.com), which is a nonprofit academic service that attempts to match researchers in need of samples with participants willing to complete surveys (Stanton & Weiss, 2002). In exchange for this service, the StudyResponse researchers examine the relationship between study characteristics (e.g., survey length) and survey effectiveness (e.g., response rate, missing data rates).

For the present study, recruits were limited to full-time employees who reported to a supervisor. A random sample of 1491 employees that met the inclusion criteria was generated. The StudyResponse staff sent out recruitment e-mails with links to an online survey. In accordance with our Institutional Review Board's protocols, participants were told that the research was voluntary and that the study pertained to "the relationship between job attitudes and job behaviours". Respondents were further told that they would receive a \$10 Amazon.com gift certificate if they filled out the survey and their supervisors filled out a shorter set of questions. Respondents signed on to the online survey using their StudyResponse ID number, which was the only identifier included with their data. Once the participants had filled out their survey, they e-mailed their supervisors with a link to the supervisory survey, with the supervisor data identified with the same ID number. A total of 283 individuals completed the self survey, resulting in a response rate of 19%. Of the 283 employees who filled out the self survey, 217 had supervisors who filled out their accompanying survey as well.

Measures

Organizational justice. Two dimensions of organizational justice were measured using the instrument developed by Colquitt (2001). *Procedural justice* was measured by asking participants to assess the procedures used to make decisions about evaluations, promotions, rewards, transfers, etc.

Participants used a 5-point Likert scale (1 = “to a very small extent”, 5 = “to a very large extent”) to indicate the extent to which they agreed with statements such as, “I am able to express my views during those procedures”, “Those procedures are applied consistently”, and “Those procedures have been free of bias”. To assess *interpersonal justice*, participants responded to four items designed to assess the nature of treatment by the organization during decision events such as, “I have been treated with dignity” and “I have been treated with respect”.

Prior to considering subsequent relations among the study’s variables, we conducted two confirmatory factor analyses (CFA) in LISREL 8.72 (Jöreskog & Sörbom, 1993) to assess the dimensionality of the procedural and interpersonal justice dimensions. First, we specified the seven procedural and four interpersonal justice items to load onto a single, latent organizational justice factor. Results of this model did not provide an adequate fit to the data, $\chi^2(44) = 797.96$, $\chi^2/df = 18.14$, CFI = .85, SRMR = .16, so we then specified a two-factor model in which the procedural and interpersonal justice items were specified to load on their respective factors. A two-factor model provided an adequate fit, $\chi^2(43) = 140.25$, $\chi^2/df = 3.26$, CFI = .98, SRMR = .048, and a significant improvement over a single factor solution. As such, we examined procedural and interpersonal justice as distinct dimensions, consistent with previous treatments of these two concepts (Colquitt, 2001).

For each of the following constructs, all measures used a 5-point Likert scale where 1 = “strongly disagree” and 5 = “strongly agree”.

LMX. Leader–member exchange was assessed with the LMX-7, which was developed by Graen and Scandura (1987). Participants described the extent to which they agreed with seven items such as, “I usually know how satisfied my leader is with me”, “My leader understands my job problems and needs”, and “My leader recognizes my potential”.

Felt obligation. Obligation felt to the organization was assessed with six items from a scale developed by Eisenberger, Armeli, Rexwinkle, Lynch, and Rhoades (2001). Sample items included, “I feel a personal obligation to do whatever I can to help the organization achieve its goals” and “I owe it to the organization to give 100% of my energy to the organization’s goals while I am at work”.

OCB. Supervisors completed the 16-item measure of OCB published by Lee and Allen (2002), indicating the extent to which they agreed with statements about their subordinate’s behaviour. Items included “This employee... helps others who have been absent”, “... assists others with their duties”, “... attends functions that are not required but that help the

organizational image”, and “... offers ideas to improve the functioning of the organization”.

Withdrawal. Withdrawal was measured with a three-item scale developed by Hom, Griffeth, and Sellaro (1984). Sample items included, “Do you intend to leave your organization in the next 12 months?” and “How strongly do you feel about leaving the organization within the next 12 months?”.

RESULTS

Scale means, standard deviations, reliabilities, and intercorrelations among the key variables are presented in Table 1. Consistent with previous examinations of the dimensions of organizational justice, the correlation between procedural and interpersonal justice is positive and significant, $r = .60, p < .05$. Correlations between LMX and the justice dimensions were positive and significant, $r_{\text{LMX-PJ}} = .60, r_{\text{LMX-IJ}} = .61$), suggesting that assessments of relationship quality are strongly associated with the perceived fairness of procedures used to make organizational decisions and the perceived fairness of interpersonal treatment by a supervisor.

Hypotheses 1 and 2 predicted that perceptions of procedural and interpersonal justice would be positively related to felt obligation and OCB, and negatively related to withdrawal. In support of those hypotheses, correlations between procedural justice were positive and significant for felt obligation (Hypothesis 1a), $r = .40, p < .05$, and organizational citizenship (Hypothesis 1b), $r = .44, p < .05$, and negative and significant for withdrawal behaviours (Hypothesis 1c), $r = -.28, p < .05$. The pattern of correlations was similar for interpersonal justice, in support of Hypotheses 2a—felt obligation, $r = .45, p < .05$; 2b—OCB, $r = .36$,

TABLE 1
Scale means and correlations among the study's variables

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1 Procedural justice	3.36	0.89	(.91)					
2 Interpersonal justice	3.90	0.92	.61*	(.95)				
3 LMX	3.61	0.93	.60*	.61*	(.93)			
4 Felt obligation	3.68	0.77	.40*	.45*	.45*	(.81)		
5 OCB ^A	4.07	0.66	.44*	.36*	.35*	.46*	(.95)	
6 Withdrawal	4.30	0.76	-.28*	-.37*	-.20*	-.31*	-.63*	(.85)

$n = 283$. ^A $n = 217$ for correlations with OCB. *M* = scale mean. *SD* = standard deviation.

* $p < .05$. Coefficient alpha estimates of reliability are in parentheses on the diagonal. LMX = leader-member exchange. OCB = organizational citizenship behaviour.

$p < .05$; and 2c—withdrawal, $r = -.37$, $p < .05$. In sum, results provide support for Hypotheses 1 and 2.

To test the predictions of Hypothesis 3 and to determine if correlation coefficients with the criteria were stronger for procedural than for interpersonal justice, we conducted the Steiger (1980) test for each of the study's outcomes. The Steiger test takes dependency among independent variables into account (e.g., procedural and interpersonal justice), and allows us to calculate a test statistic (Z) with a Student's t -distribution. Z -scores greater than $+1.64$ (or less than -1.64) would indicate that observed differences in validity were statistically significant at $p < .05$ (one-tailed). Results of this analysis, however, revealed nonsignificant differences across the justice dimensions for all three outcomes—felt obligation, $Z = -1.07$, *ns*, OCB, $Z = 1.48$, *ns*, withdrawal, $Z = 1.60$, *ns*. Thus, Hypothesis 3 was not supported.

Hypotheses 4 and 5 predicted the existence of an interaction between justice and LMX such that the effects of justice on the study's criteria would be stronger for those who reported high LMX relationships. Table 2 provides a summary of regression results for tests of these hypotheses. In Model 1, we regressed the criterion on the justice dimensions (procedural and interpersonal) and LMX; in Model 2, we regressed the criterion on the justice dimensions, LMX, and the interaction term between procedural justice and LMX; in Model 3, we regressed the criterion on the justice dimensions, LMX, and the interaction term between interpersonal justice and LMX; and in Model 4, we tested the full model by regressing the criterion on the justice dimensions, LMX, and both interaction terms. To determine if the observed effect of justice on the criterion are moderated by LMX, we examined the standardized beta coefficients for the interaction terms in Steps 2 and 3. Significant beta weights for the interaction terms provide support for the notion that LMX moderates the effect of justice.

In support of Hypothesis 4, regression results revealed significant interaction terms between procedural justice and LMX for felt obligation, $\beta = .17$, $\Delta R^2 = .02$, $p < .05$, OCB, $\beta = .22$, $\Delta R^2 = .04$, $p < .05$, and withdrawal, $\beta = .16$, $\Delta R^2 = .02$, $p < .05$. For each of these outcomes, the interaction term in Model 2 explained additional variance beyond the main effects of each variable in Step 1. As Figure 1 shows, the relationship between procedural justice and felt obligation was stronger for those who reported high LMX relationships than for those who reported low LMX. A similar pattern emerged for OCB (Figure 2).

To further examine the nature of these interactions, we conducted a simple slopes analysis for each criterion (Aiken & West, 1991). Consistent with Aiken and West's (1991) recommendations, we centred the independent variables (PJ and IJ) and the moderator variable (LMX), and then used these centred variables to create the interaction terms required for assessing the impact of the boundary conditions. We then tested a series of linear

TABLE 2
Regression analyses for Hypotheses 3 and 4

	Felt obligation				OCB				Withdrawal			
	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4
Procedural justice (PJ)	.18*	.16*	.17*	.17*	.32*	.30*	.31 [†]	.31*	.13	.11	.12	.12
Interpersonal justice (IJ)	.06	.09	.13	.11	.12	.18*	.25*	.24*	.37*	.41*	.46*	.45*
LMX	.31*	.34*	.31*	.33*	.07	.11	.07	.09	-.12	-.09	-.12	-.10
PJ × LMX		.17*		.14 [†]		.22*		.12		.16*		.08
IJ × LMX				.05			.24*	.15				.12
R ²	.23*	.25*	.25*	.26*	.21*	.25*	.25*	.26*	.15*	.17*	.17*	.18*
ΔR ² (from Model 1)		.02*	.02*	.03*	.04*	.04*	.04*	.05*		.02*	.02*	.03*

* $p < .05$. [†] $p < .10$. LMX = leader-member exchange. OCB = organizational citizenship behaviour.

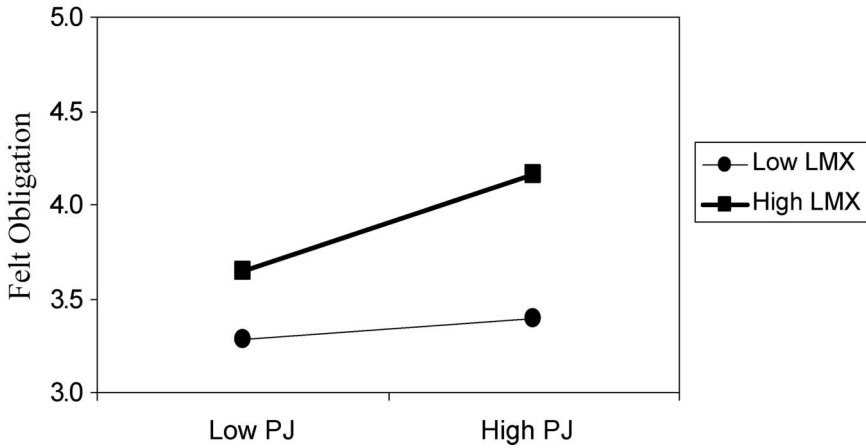


Figure 1. Interaction between leader-member exchange and procedural justice on felt obligation.

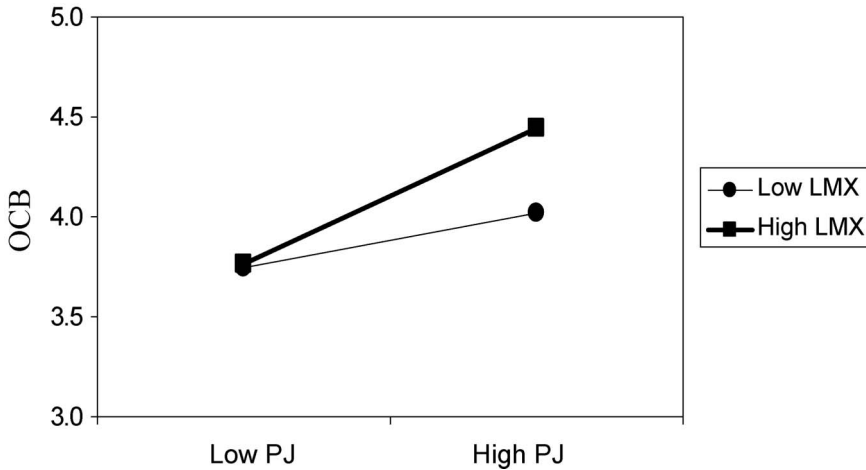


Figure 2. Interaction between leader-member exchange and procedural justice on organizational citizenship behaviour.

regression models with each criterion regressed on the justice dimension, LMX, and the interaction term. Results of this analysis allow us to determine if relationships between justice and the criteria are robust across levels of the moderator, in this case, LMX.

The simple slope of obligation onto procedural justice in the high LMX condition was significant, $B = .30$, $p < .05$, whereas the slope of obligation

on procedural justice with low LMX was nonsignificant, $B = .05$, *ns*. Similar results were revealed for withdrawal—the simple slope was significant in the high LMX condition, $B = .28$, $p < .05$, but nonsignificant in the low LMX condition, $B = .14$, *ns*. These results suggest that low LMX attenuates the relationship between procedural justice and the outcomes. For OCB, the slope of the regression line was significant in the high condition, $B = .28$, $p < .05$, but nonsignificant in the low LMX condition, $B = .12$, *ns*.

In support of Hypothesis 5, regression results revealed significant interactions between interpersonal justice and LMX for each criterion—felt obligation, $\beta = .14$, $\Delta R^2 = .02$, $p < .05$, OCB, $\beta = .24$, $\Delta R^2 = .05$, $p < .05$, and withdrawal, $\beta = .18$, $\Delta R^2 = .02$, $p < .05$. For each outcome, the interaction terms in Model 3 explained additional variance beyond the main effects of each variable in step one. The simple slope of obligation (Figure 3) onto interpersonal justice was positive and significant with high LMX, $B = .25$, $p < .05$, but nonsignificant with low LMX, $B = .05$, *ns*. This result suggests that the positive effect of interpersonal justice on felt obligation is offset by low quality supervisor–subordinate relationships.

For OCB (Figure 4) and withdrawal behaviours (Figure 5), the simple slopes analysis revealed that interpersonal justice had significant effect whether the subordinate reported a high quality relationship, $B = .38$, $p < .05$; $B = .51$, $p < .05$, respectively, or a low quality relationship, $B = .11$, $p < .05$; $B = .28$, $p < .05$, respectively, with his or her supervisor. That is, both slopes in this analysis were significantly different from zero, suggesting

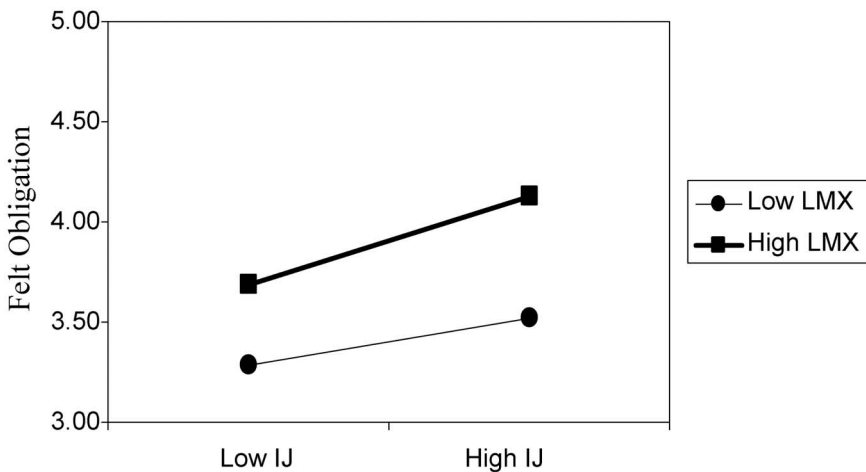


Figure 3. Interaction between leader–member exchange and interpersonal justice on felt obligation.

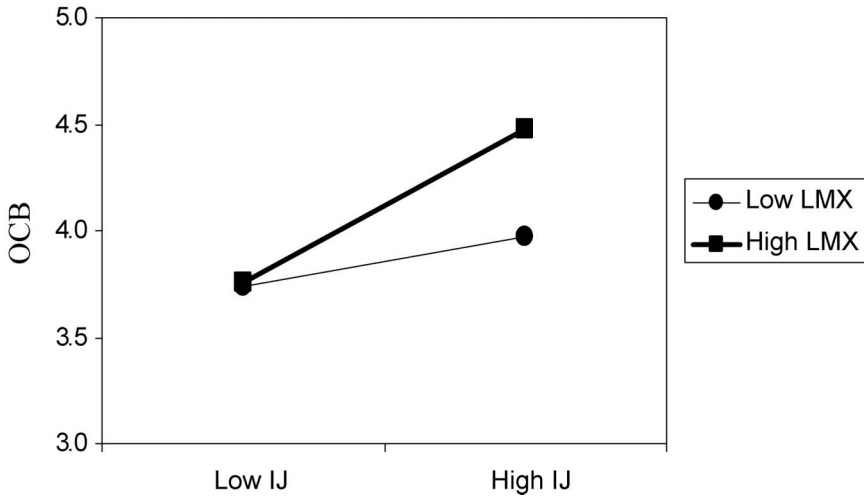


Figure 4. Interaction between leader–member exchange and interpersonal justice on organizational citizenship behaviour.

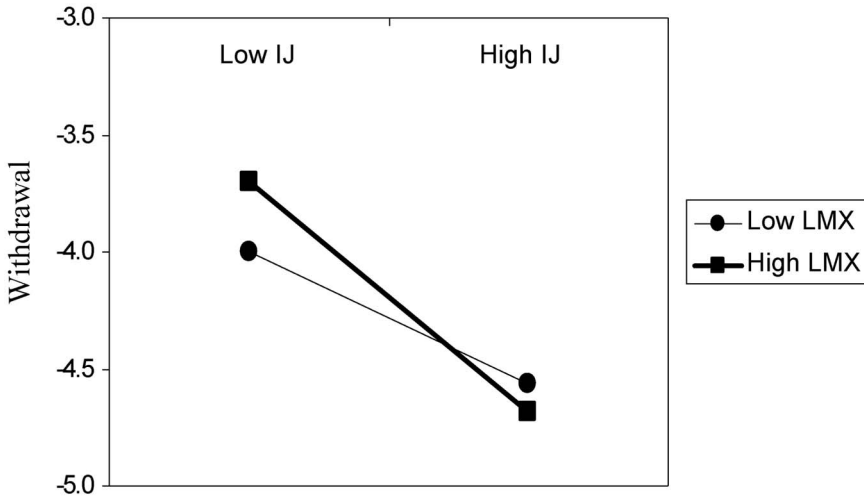


Figure 5. Interaction between leader–member exchange and interpersonal justice on withdrawal behaviour.

that interpersonally fair treatment by a supervisor encourages OCB and reduces withdrawal behaviours among subordinates independent of the subordinate’s perceived level of LMX.

In Table 2, the columns labelled “Model 4” for each criterion display regression results for models in which the outcome variables (felt obligation, OCB, and withdrawal) were regressed on the independent variables (procedural justice and interpersonal justice), the moderator (LMX), and the interaction terms (Procedural justice \times LMX and Interpersonal justice \times LMX). For felt obligation, regression results revealed significant beta weights for procedural justice, $\beta = .17, p < .05$, LMX, $\beta = .33, p < .05$, and the procedural justice–LMX interaction term, $\beta = .14, p < .10$. For OCB, significant beta weights were obtained for procedural justice, $\beta = .31, p < .05$, and interpersonal justice, $\beta = .24, p < .05$. For withdrawal, the only variable that obtained a significant beta weight was interpersonal justice, $\beta = .45, p < .05$.

Although not specifically hypothesized, we were interested in alternative models of the relationships between LMX and justice. Because research suggests that leadership can influence perceptions of justice (De Cremer, 2006; Lipponen et al., 2005), we used LISREL 8.72 (Jöreskog & Sörbom, 1993) to test a model that specified high quality relationships (i.e., high LMX) as predictors of organizational justice. However, when LMX was modelled as the independent variable, procedural and interpersonal justice as mediators, and felt obligation, OCB, and withdrawal as dependent variables, the model did not adequately fit the data, $\chi^2 = 2557.17, df = 852, p < .001, CFI = .95, RMSEA = .09, SRMR = .12$, suggesting that a structural model of this nature is not viable in the current dataset. Further, consistent with the theorizing by Moorman and Byrne (2005) and by van Knippenberg et al. (2007), we tested a model in which LMX mediated relationships between organizational justice and the study’s outcomes. This model too failed to provide adequate fit to the study’s data, $\chi^2 = 2514.34, df = 848, p < .001, CFI = .95, RMSEA = .094, SRMR = .12$, providing further support for the current study’s proposed model.

DISCUSSION

In this study, we sought to examine the interaction between perceptions of procedural and interpersonal justice with leader–member exchange. Whereas several other studies have examined individual differences or organizational characteristics as boundary conditions on the utility of justice perceptions, we consider the quality of the relationship between subordinate and supervisor. In response to the recommendations by Colquitt and Greenberg (2003) and van Knippenberg et al. (2007), we draw on models of social exchange to integrate concepts in organizational justice and leader–member exchange.

Results of this study suggest that high quality leader–member relationships accentuate the impact of justice on three related but distinct social

exchange-oriented outcomes—felt obligation, organizational citizenship, and withdrawal. Indeed, the strongest observed effects were in those cases where followers reported that both LMX and justice were high. In addition, despite its robust utility across a host of important outcomes, the effects of procedural justice on two outcomes were attenuated in cases where followers maintained low quality relations with their supervisors. That is, for felt obligation and OCB, justice did not seem to matter when LMX was low—a result that is similar to that reported by De Cremer and Tyler (2007).

Theoretical implications

One theoretical implication of this study is the identification of a leader-referenced boundary condition for procedural and interpersonal justice. While all dimensions of organizational justice appear to have positive effects on a host of attitudinal and behavioural outcomes, employees vary in the way that they respond to both just and unjust events. Very recently, variability in response was explained with reference to stable individual differences of an employee (e.g., Colquitt et al., 2006), deeply held personal values (e.g., Fisher & Smith, 2006), or the nature and complexity of the organizational environment (Ambrose & Schminke, 2003). Results of this study, however, suggest that employees base their responses to procedural and interpersonal justice in part on the quality of the relationships these employees maintain with their supervisors.

A second implication is the observation that low quality leader–member relations attenuate effects of fair procedures and dignified interpersonal interactions. Indeed, for two of the three outcomes in this study (felt obligation and OCB), the positive effects of procedural justice were offset by low LMX. It may be possible that LMX serves as a proxy for interpersonal trust (see Dirks & Ferrin, 2002), such that high LMX relationships are characterized primarily by the trust that exists between parties, while low LMX reflects the absence of trust or—worse—distrust. Perhaps the implementation of fair organizational procedures is meaningless to employees who do not maintain a minimum level of trust in their supervisors—a finding that has implications for future studies of the interactions among leadership, justice, and trust.

A third theoretical implication of this research relates to our hypothesis about the differential prediction for the justice dimensions—namely, that relationships between procedural justice and the outcomes would be stronger than for interpersonal justice. We based these predictions on the two-factor (Sweeney & McFarlin, 1993) and agent-system (Masterson et al., 2000) models of justice. However, our results did not conform to these predictions. Perhaps these results are not surprising given that most studies,

even ones that formally predict differential effects for the justice dimensions, do not actually test to see whether the relationships are *statistically* significantly different as we do here. For example, while Colquitt et al.'s (2001) meta-analysis claims general support for these models, the magnitude for correlations between both procedural and interpersonal justice and both organization- and supervisor-referenced outcomes are relatively high. Future research should continue to examine whether the justice dimensions (i.e., procedural, interpersonal) differentially relate to outcomes with different referents, and to examine boundary conditions of such relationships.

As an extension of that observation, we note that our test of potential differences between the two justice concepts may have been insufficient, in that the study's outcomes did not provide a clear distinction between organization- and supervisor-referenced evaluations. The study's measure of organizational citizenship (Lee & Allen, 2002), for example, included items that captured behaviour directed towards individuals in the work group (e.g., "...assist others with their duties") *and* behaviours directed towards the organization as a whole (e.g., "...show pride when representing the organization in public"), a method that is common in the examination of OCB (Podsakoff, MacKenzie, Paine, & Bachrach, 2000). As such, identifying differences in the validities of procedural and interpersonal justice may have been compromised by the nature of the study's measurement of outcome criteria.

Results of this study support the notion that high quality leader–member relations accentuate the utility of procedural and interpersonal justice. In light of those results, we argue that high LMX serves to enhance the positive effects of favourable work conditions, specifically the existence of fair organizational policies and interpersonal treatment. That said, we are mindful of studies that argue for the attenuating influence of high quality LMX on the impact of other important judgements in the workplace. In a study of 524 school teachers in Turkey, for example, Erdogan, Kraimer, and Liden (2002) found that perceptions of person–organization fit (P-O fit) were related to job and career satisfaction when teachers reported *low* quality relationships with their supervisors. For those who enjoyed high quality LMX, however, fit with the organization had little utility in explaining variance in job satisfaction. That is, high LMX attenuated effects of P-O fit. According to the authors, leaders serve as central in a subordinate's evaluation of the organization, and high quality leader–member relationships supplant other important organization-based criteria, such as person–organization fit.

Similarly, as high quality LMX relationships are characterized by trust among leaders and followers, those in high quality relationships may give leaders the "benefit of the doubt" when unjust procedures or unfair

outcomes are revealed. Indeed, trust “affects how one interprets the past (or present) actions of [another] party, and the motives underlying the actions” (Dirks & Ferrin, 2001, p. 456), such that high levels of trust by a subordinate (high LMX) afford the leader latitude in the expression of fair procedures and interpersonal exchange. Thus, whereas the current study provides support for the notion that high LMX accentuates the effect of procedural and interpersonal justice, alternative interpretations of relationships among these concepts do indeed exist.

Limitations and future directions

The contributions of this research should be interpreted in light of the study’s limitations. The data collected were cross-sectional, so alternative explanations for observed results may exist. It may be possible, for example, that high LMX is an antecedent to judgements of organizational justice, such that those in high LMX relationships are more likely to regard organizational policies as fair. It may also be possible that perceptions of organizational fairness provide the platform on which leader–member relations evolve, such that fair procedures support the development of high quality relations among leaders and followers. However, we examined alternative models of the relationships among the study’s primary variables and found robust support for the examination of LMX as a moderator of organizational justice.

In addition, with the exception of OCB, all variables in this study were measured by the same source (OCB was rated by supervisors). Responses from the same source on two different scales tend to inflate the observed correlation among those scales (Podsakoff et al., 2003). However, findings associated with OCB were consistent and robust, thus reducing the likelihood that same source response bias influenced the nature and magnitude of observed results. That said, because our assessments of felt obligation and withdrawal may suffer from same source bias, our findings for the relationships among the justice dimensions, LMX, and these two outcomes should be interpreted with caution.

The sample used in the study has some limitations as well. Because participants in the StudyResponse service are anonymous, we have little knowledge of who participants were or why they may have chosen to participate. The participants who agreed to participate, for example, may be more likely to engage in OCB on their jobs and less likely to exhibit withdrawal behaviours. As such, we can make no claims as to the generalizability of these results.

In this study, we treated LMX as a moderator, which is consistent with existing models for potential boundary conditions on organizational justice (e.g., Brockner & Weisenfeld, 2005; Colquitt et al., 2006).

Beyond relationship quality with a supervisor, the effects of procedural and interpersonal justice may also depend on individual differences that shape the way employees form judgements about their work environments. One such individual difference is regulatory focus. Regulatory focus includes two dimensions—*promotion focused* (i.e., motivated by a concern for nurturance and growth) and *prevention focused* (i.e., motivated by a concern for security and safety) (Higgins, 1997, 1998). Perhaps individuals that are promotion focused are more strongly influenced by high-quality work relationships that provide the opportunity for career development and personal growth, whereas prevention-focused individuals, concerned with avoiding exploitation (i.e., feeling safe and secure), are more sensitive and more strongly influenced by relationships characterized by low levels of trust and communication.

Another potential boundary condition on organizational justice is the level of environmental uncertainty experienced by the employee. Uncertainty management theory (UMT; Lind & van den Bos, 2002; van den Bos & Lind, 2002) posits that justice is important to people because it helps reduce perceived uncertainty in the work context. That is, high levels of fair treatment and the execution of consistent organizational policies helps to alleviate the potential negative outcomes associated with uncertainty in the workplace. It may be that justice matters more during times of organizational change, whereas stable and consistent environmental conditions reduce the utility of organizational justice.

Finally, future studies should draw on social exchange processes to examine relationship quality (i.e., LMX) as the mechanism by which fair organizational policies achieve their intended effects (Moorman & Byrne, 2005; van Knippenberg et al., 2007). In that vein, future studies could consider leader-referenced measures of procedural justice to determine if doing so alters the role that LMX plays in the justice process (see van Knippenberg et al., 2007).

CONCLUSION

In light of inconsistent findings on the interaction between organizational justice and leadership, we sought to examine relations among two aspects of organizational justice (procedural and interpersonal), leader–member exchange, and social exchange-oriented outcomes (felt obligation, OCB, and withdrawal). Results of this study suggest that justice perceptions are most strongly related to felt obligation, OCB, and withdrawal behaviours when employees report high quality relationships with their supervisors.

REFERENCES

- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.
- Ambrose, M. L., & Schminke, M. (2003). Organization structure as a moderator of the relationship between procedural justice, interactional justice, perceived organizational support, and supervisory trust. *Journal of Applied Psychology, 88*, 295–305.
- Aquino, K., Griffith, R. W., Allen, D. G., & Hom, P. W. (1997). Integrating justice constructs into the turnover process: A test of a referent cognitions model. *Academy of Management Journal, 40*, 1208–1227.
- Bass, B. M. (1985). *Leadership and performance beyond expectations*. New York: Free Press.
- Begley, T. M., Lee, C., Fang, Y., & Li, J. (2002). Power distance as a moderator of the relationship between justice and employee outcomes in a sample of Chinese employees. *Journal of Managerial Psychology, 17*, 692–711.
- Begley, T. M., Lee, C., & Hui, C. (2006). Organizational level as a moderator of the relationship between justice perceptions and work-related reactions. *Journal of Organizational Behavior, 27*, 705–721.
- Berry, C. M., Ones, D. S., & Sackett, P. R. (2007). Interpersonal deviance, organizational deviance, and their common correlates: A review and meta-analysis. *Journal of Applied Psychology, 92*, 410–424.
- Bies, R. J., & Moag, J. S. (1986). Interactional justice: Communication criteria of fairness. In R. J. Lewicki, B. H. Sheppard, & M. H. Bazerman (Eds.), *Research in negotiation in organizations* (Vol. 1, pp. 43–55). Greenwich, CT: JAI Press.
- Blakely, G., Andrews, M., & Moorman, R. (2005). The moderating effects of equity sensitivity on the relationship between organizational justice and organizational citizenship behaviors. *Journal of Business and Psychology, 20*, 259–273.
- Blau, P. M. (1964). *Exchange and power in social life*. New York: Wiley.
- Brockner, J., De Cremer, D., van den Bos, K., & Chen, Y. R. (2005). The influence of interdependent self-construal on procedural fairness effects. *Organizational Behavior and Human Decision Processes, 96*, 155–167.
- Brockner, J., & Weisenfeld, B. (2005). How, when, and why does outcome favorability interact with procedural fairness? In J. Greenberg & J. A. Colquitt (Eds.), *Handbook of organizational justice* (pp. 525–553). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Brown, M. E., Treviño, L. K., & Harrison, D. A. (2005). Ethical leadership: A social learning perspective for construct development and testing. *Organizational Behavior and Human Decision Processes, 97*, 117–134.
- Byrne, Z. S. (2001). *Effects of perceptions of organizational justice, identification, and support on outcomes within work teams*. Unpublished doctoral dissertation, Colorado State University, CO.
- Byrne, Z. S. (2005). Fairness reduces the negative effects of organizational politics on turnover intentions, citizenship behavior and job performance. *Journal of Business and Psychology, 20*, 175–200.
- Christopher, L. M., & Bennett, N. (1996). The role of justice judgments in explaining the relationship between job satisfaction and organizational commitment. *Group and Organization Management, 21*, 84–104.
- Cogliser, C. C., & Schriesheim, C. A. (2000). Exploring work unit context and leader–member exchange: A multi-level perspective. *Journal of Organizational Behavior, 21*, 487–511.
- Colquitt, J. A. (2001). On the dimensionality of organizational justice: A construct validation of a measure. *Journal of Applied Psychology, 86*, 386–400.

- Colquitt, J. A., Conlon, D. E., Wesson, M. J., Porter, C. O. L. H., & Ng, K. Y. (2001). Justice at the millennium: A meta-analytic review of 25 years of organizational justice research. *Journal of Applied Psychology, 86*, 425–445.
- Colquitt, J. A., & Greenberg, J. (2003). Organizational justice: A fair assessment of the state of the literature. In J. Greenberg (Ed.), *Organizational behavior: The state of the science* (pp. 165–210). Mahwah, NJ: Lawrence Erlbaum Associate, Inc.
- Colquitt, J. A., Scott, B. A., Judge, T. A., & Shaw, J. C. (2006). Justice and personality: Using integrative theories to derive moderators of justice effects. *Organizational Behavior and Human Decision Processes, 100*, 110–127.
- Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management, 31*, 874–900.
- Cropanzano, R., Prehar, C. A., & Chen, P. Y. (2002). Using social exchange theory to distinguish procedural from interactional justice. *Group and Organization Management, 27*, 324–351.
- De Cremer, D. (2006). When authorities influence followers' affect: The interactive effect of procedural justice and transformational leadership. *European Journal of Work and Organizational Psychology, 15*, 322–351.
- De Cremer, D., & Tyler, T. R. (2007). The effects of trust in authority and procedural fairness on cooperation. *Journal of Applied Psychology, 92*, 639–649.
- De Cremer, D., & Tyler, T. R. (in press). Integrating leadership and procedural fairness: A contingency approach. In J. Greenberg (Ed.), *Research in organizational justice*.
- De Cremer, D., & van Knippenberg, D. (2002). How do leaders promote cooperation? The effects of charisma and procedural fairness. *Journal of Applied Psychology, 87*, 858–866.
- De Cremer, D., van Knippenberg, D., van Dijke, M., & Bos, A. E. R. (2004). How self-relevant is fair treatment? Social self-esteem moderates interactional justice effects. *Social Justice Research, 17*, 407–419.
- Dirks, K. T., & Ferrin, D. L. (2001). The role of trust in organizational settings. *Organization Science, 12*, 450–467.
- Dirks, K. T., & Ferrin, D. L. (2002). Trust in leadership: Meta-analytic findings and implications for research and practice. *Journal of Applied Psychology, 87*, 611–628.
- Eisenberger, R., Armeli, S., Rexwinkle, B., Lynch, P. D., & Rhoades, L. (2001). Reciprocation of perceived organizational support. *Journal of Applied Psychology, 86*, 42–51.
- Emerson, R. M. (1976). Social exchange theory. *Annual Review of Sociology, 2*, 335–362.
- Erdogan, B., Kraimer, M. L., & Liden, R. C. (2002). Person–organization fit and work attitudes: The moderating role of leader–member exchange. *Academy of Management Proceedings* (pp. F1–F6).
- Erdogan, B., & Liden, R. C. (2006). Collectivism as a moderator of responses to organizational justice: Implications for leader–member exchange and ingratiation. *Journal of Organizational Behavior, 27*, 1–17.
- Erdogan, B., Liden, R. C., & Kraimer, M. L. (2006). Justice and leader–member exchange: The moderating role of organizational culture. *Academy of Management Journal, 49*, 395–406.
- Fisher, R., & Smith, P. B. (2006). Who cares about justice? The moderating effect of values on the link between organisational justice and work behaviour. *Applied Psychology: An International Review, 55*, 541–562.
- Folger, R., & Greenberg, J. (1985). Procedural justice: An interpretive analysis of personnel systems. In K. Rowland & G. Ferris (Eds.), *Research in personnel and human resources management* (Vol. 3, pp. 141–183). Greenwich, CT: JAI Press.
- Gerstner, C. R., & Day, D. V. (1997). Meta-analytic review of leader–member exchange theory: Correlates and construct issues. *Journal of Applied Psychology, 82*, 827–844.

- Graen, G. B., & Scandura, T. A. (1987). Toward a psychology of dyadic organizing. In L. L. Cummings & B. M. Staw (Eds.), *Research in organizational behavior* (Vol. 9, pp. 175–208). Greenwich, CT: JAI Press.
- Graen, G. B., & Uhl-Bien, M. (1995). Relationship-based approach to leadership: Development of leader–member exchange (LMX) theory of leadership over 25 years. *Leadership Quarterly*, 6, 219–247.
- Higgins, E. T. (1997). Beyond pleasure and pain. *American Psychologist*, 52, 1280–1300.
- Higgins, E. T. (1998). Promotion and prevention: Regulatory focus as a motivational principle. In M. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 30, pp. 1–46). San Diego, CA: Academic Press
- Hom, P. W., Griffeth, R. W., & Sellaro, C. L. (1984). The validity of Mobley's (1977) model of employee turnover. *Organizational Behavior and Human Performance*, 34, 141–174.
- Jöreskog, K. G., & Sörbom, D. (1993). *LISREL 8 user's reference guide*. Chicago: Scientific Software.
- Judge, T. A., & Colquitt, J. A. (2004). Organizational justice and stress: The mediating role of work–family conflict. *Journal of Applied Psychology*, 89, 395–404.
- Judge, T. A., Piccolo, R. F., & Ilies, R. (2004). The forgotten ones? The validity of consideration and initiating structure in leadership research. *Journal of Applied Psychology*, 89, 36–51.
- Lee, K., & Allen, N. J. (2002). Organizational citizenship behavior and workplace deviance: The role of affect and cognitions. *Journal of Applied Psychology*, 87, 131–142.
- Lind, E. A., & van den Bos, K. (2002). When fairness works: Toward a general theory of uncertainty management. *Research in Organizational Behavior*, 24, 181–223.
- Lipponen, J., Koivisto, S., & Olkkonen, M. E. (2005). Procedural justice and status judgments: The moderating role of leader ingroup prototypicality. *Leadership Quarterly*, 16, 517–528.
- Masterson, S. S., Lewis, K., Goldman, B. M., & Taylor, M. S. (2000). Integrating justice and social exchange: The differing effects of fair procedures and treatment on work relationships. *Academy of Management Journal*, 43, 738–748.
- 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.
- Moorman, R. H., & Byrne, Z. S. (2005). How does organizational justice affect organizational citizenship behavior? In J. Greenberg & J. A. Colquitt (Eds.), *Handbook of organizational justice* (pp. 355–380). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Murphy, S. M., Wayne, S. J., Liden, R. C., & Erdogan, B. (2003). Understanding social loafing: The role of justice perceptions and exchange relationships. *Human Relations*, 56, 61–84.
- Philips, J. M., Douthitt, E. A., & Hyland, M. A. M. (2001). The role of justice in team member satisfaction with the leader and attachment to the team. *Journal of Applied Psychology*, 86, 316–325.
- Piliyai, R., Schriesheim, C. A., & Williams, E. S. (1999). Fairness perceptions and trust as mediators for transformational and transactional leadership: A two-sample study. *Journal of Management*, 25, 897–933.
- Podsakoff, P. M., MacKenzie, S. B., Paine, J. B., & Bachrach, D. G. (2000). Organizational citizenship behaviors: A critical review of the theoretical and empirical literature and suggestions for future research. *Journal of Management*, 26, 513–563.
- Scandura, T. A. (1999). Rethinking leader–member exchange: An organizational justice perspective. *Leadership Quarterly*, 10, 298–318.
- Schmitt, M., & Dorfel, M. (1999). Procedural injustice at work, justice sensitivity, job satisfaction and psychosomatic well-being. *European Journal of Social Psychology*, 29, 443–453.

- Skarlicki, D. P., Folger, R., & Tesluk, P. (1999). Personality as a moderator in the relationship between fairness and retaliation. *Academy of Management Journal*, *42*, 100–108.
- Stanton, J. M., & Weiss, E. M. (2002). *Online panels for social science research: An introduction to the StudyResponse project* (Tech. Rep. No. 13001). Syracuse, NY: Syracuse University, School of Information Studies.
- Steiger, J. H. (1980). Tests for comparing elements of a correlation matrix. *Psychological Bulletin*, *87*, 245–251.
- Sweeney, P. D., & McFarlin, D. B. (1993). Workers' evaluation of the "ends" and the "means": An examination of four models of distributive and procedural justice. *Organizational Behavior and Human Decision Processes*, *55*, 23–40.
- Tangirala, S., Green, S. G., & Ramanujam, R. (2007). In the shadow of the boss's boss: Effects of supervisors' upward exchange relationships on employees. *Journal of Applied Psychology*, *92*, 309–320.
- Tyler, T. R. (2006). Psychological perspectives on legitimacy and legitimation. *Annual Review of Psychology*, *57*, 375–400.
- Tyler, T. R., & De Cremer, D. (2005). Process-based leadership: Fair procedures and reactions to organizational change. *Leadership Quarterly*, *16*, 529–545.
- Van den Bos, K. (2001). Uncertainty management: The influence of uncertainty salience on reactions to perceived procedural fairness. *Journal of Personality and Social Psychology*, *80*, 931–941.
- Van den Bos, K., & Lind, E. A. (2002). Uncertainty management by means of fairness judgments. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 34, pp. 1–60). San Diego, CA: Academic Press.
- Van Knippenberg, D., De Cremer, D., & van Knippenberg, B. (2007). Leadership and fairness: The state of the art. *European Journal of Work and Organizational Psychology*, *16*, 113–140.
- Van Knippenberg, D., & Hogg, M. A. (2003). A social identity model of leadership effectiveness in organizations. In R. M. Kramer & B. M. Staw (Eds.), *Research in organizational behavior: An annual series of analytical essays and critical reviews* (Vol. 25, pp. 243–295). Oxford, UK: Elsevier Science.
- Vermunt, R., & Steensma, H. (2003). Physiological relaxation: Stress reduction through fair treatment. *Social Justice Research*, *16*, 135–149.
- Wayne, S. J., Shore, L. M., Bommer, W. H., & Tetrick, L. E. (2002). The role of fair treatment and rewards in perceptions of organizational support and leader–member exchange. *Journal of Applied Psychology*, *87*, 590–598.

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