

Leader-Member Exchange, Group- and Individual-Level Procedural Justice and Reactions to Performance Appraisals

Abstract

Previous research has established that relationships with authority figures and procedural justice perceptions are important in terms of the way in which employees react to organizational procedures that affect them. What is less clear are the reasons why exchange quality with authorities is related to perceptions of process fairness and the role of procedural justice climate in this process. Results indicate that individual-level perceptions of procedural justice, but not performance ratings, partially mediate the relationship between exchange quality and reactions to performance appraisals, and that procedural justice climate is positively related to perceptions of procedural justice and appraisal reactions. These results support a more relational than instrumental view of justice perceptions in organizational procedures bound by exchange quality with an authority figure. Our study suggests that it is essential for managers to actively monitor and manage employee perceptions of process fairness at the group and individual levels.

Keywords: organizational justice; procedural justice; procedural justice climate; supervisor-subordinate relationships; leader-member exchange; performance appraisal; social context

Performance appraisal is one of the most ubiquitous management tools used in organizations and one of the most commonly studied topics in the management and organization literature (Arvey & Murphy, 1998). Employee reactions to performance appraisals are one of the most important criteria to organization scholars and managers (Balzer & Sulsky, 1990) because they are key to appraisal effectiveness (DeNisi & Gonzalez, 2000) and they predict future motivation and performance (e.g., Nathan et al., 1991; Pettijohn, Pettijohn, & d'Amico, 2001). Performance appraisals occur in a social context (Murphy & Cleveland, 1995), and relationships between supervisor raters and their subordinate ratees are a key dynamic that influences the process and ratee reactions to the process (Elicker et al., 2006). Reactions to organizational procedures such as performance appraisals (Levy & Williams, 2005) and group-level perceptions of justice should be studied in their social context (Liao & Rupp, 2005); we therefore chose to examine the role of procedural justice climate as related to leader-member exchange and individual level perceptions of fairness in the context of performance appraisals.

The overarching purpose of the current article is to develop a model of how relationship quality with an authority figure and procedural justice climate are related to employee perceptions of fairness in and attitudes about organizational procedures, in this case the performance appraisal process. The main contributions of this article are 1. It highlights and demonstrates the importance of procedural justice climate in the performance appraisal process and 2. It clarifies the mediators of the relationship between leader-member exchange and appraisal reactions. This is the first study to our knowledge to investigate the role of procedural justice climate in the performance appraisal process in general, or more specifically in connection to the role of leader-member exchange in performance appraisal. This is also the first study of employee reactions to performance appraisals to collect data from multiple ratees

RUNNING HEAD: Group- and individual- level procedural justice and appraisal reactions

reporting to the same rater so as to more fully and accurately model the social context of performance appraisal. In total, therefore, we are able to develop and test a more complete model of the appraisal process than has been offered heretofore.

### Leader-Member Exchange, Procedural Justice and Employee Reactions

#### *Leader-member exchange theory and appraisal reactions*

Leader-member exchange theory is a theory of leadership, the basic premise of which is that leaders do not treat all members the same (Dansereau, et al., 1975; Graen, 1976; Graen & Cashman, 1975). Instead, leaders form different relationships that are of relatively high and low quality with different members, depending on a variety of factors, such as interpersonal attraction and member performance (Gernstner & Day, 1997; Graen & Uhl-Bien, 1995; Varma & Stroh, 2001). High (low) quality exchanges are characterized by relatively more (less) mutual trust, support, obligation and exchange of valuable resources (Liden, Sparrowe, & Wayne, 1997; Maslyn & Uhl-Bien, 2001). As applied to the performance appraisal session, members (ratees) in relatively higher quality exchanges receive preferential treatment (Scandura, Graen & Novak, 1986) in that they are allowed increased participation or voice in the process (Wexley & Klimoski 1984) and receive more favorable performance ratings (Wayne et al., 2002).

Ratees in high quality exchanges thus react more positively to their performance appraisals, perhaps because perceptions of process fairness and more positive ratings are related to more positive appraisal reactions (e.g., Dulebohn & Ferris, 1999; Elicker et al., 2006). Thus, it is generally well established across the leader-member exchange, organizational justice and performance appraisal literatures that: 1. Leader-member exchange is positively related to a) performance appraisal procedural justice, b) performance rating favorability and c) appraisal

RUNNING HEAD: Group- and individual- level procedural justice and appraisal reactions

satisfaction, 2. Performance appraisal procedural justice is positively related to appraisal satisfaction and 3. Performance rating favorability is positively related to appraisal satisfaction.

*Integrating procedural justice theory with leader-member exchange theory to understand appraisal reactions*

While there is conceptual and empirical support in the literature for the relationships articulated above (e.g., Elicker, Levy, & Hall, 2006), a question that has not been adequately addressed in the literature is the extent to which appraisal reactions are a function of exchange quality itself or what occurs in the appraisal session. Leader-member exchange theory would suggest that the exchange of resources is essential to relationship maintenance and to positive attitudes between partners (Wayne et al., 2002) as is continuous reciprocity of favorable treatment (e.g., Masterson et al., 2002; Wayne et al., 2002). We also know that humans are social animals and that relationships are important and motivating to persons in and of themselves, for reasons other than instrumentality (House, Landis, & Umberson, 1988). Instrumental and relational theories of procedural justice offer insight here.

Relational theories of procedural justice posit that reactions to organizational procedures are determined by individuals' perceptions of their standing in a group that is important to them vis a vis the extent to which they are treated favorably by the group's authority figure (Tyler & Lind, 1992). Groups provide important intangible resources to individuals, such as self-esteem and status, which are determined by one's group standing (Lind et al., 1990), which is important to individuals, regardless of outcome favorability, according to the group value model of procedural justice (Lind & Tyler, 1988). As applied to the current discussion, this would suggest that performance appraisal procedural justice should totally mediate the relationship between leader-member exchange and appraisal satisfaction. This is consistent with the justice judgment

RUNNING HEAD: Group- and individual- level procedural justice and appraisal reactions

literature, which has shown that procedures that allow for voice are related to perceived fairness (as compared to procedures that do not allow for voice) even when the voice has no impact on the outcome (Lind, Kanfer, & Earley, 1990).

Hypothesis 1: Procedural justice will mediate the relationship between leader-member exchange and appraisal satisfaction.

Instrumental or “self-interest” theories of procedural justice posit that the reason why voice is important to persons is because of its potential influence on the outcome of a process (Lind & Tyler, 1988; Tyler, 1994). In other words, reactions to organizational procedures are a function of ratees’ perceptions of influence in the process specifically as related to the outcome (Konovsky, 2000), in this case the favorability of one’s performance rating. This is consistent with procedural justice theories that suggest a threat to one’s own outcome is the most potent form of potential injustice (see Lind, Kray, & Thompson, 1998). As applied to the performance appraisal process, this would suggest that the reason why exchange quality is important and satisfying to ratees is because it increases their perception that they have influenced the process in their favor, the result of which is a more favorable outcome. In fact, research has consistently shown that high quality exchanges are related to more favorable ratings. In other words, the relationship between leader-member exchange and appraisal satisfaction will be totally mediated by performance rating favorability.

Hypothesis 2: a) Supervisor-reported performance ratings and b) self-reported performance ratings will mediate the relationship between leader-member exchange and appraisal satisfaction.

Although we know that both procedural justice and outcome favorability are important as related to employee attitudes and behavior (Aquino, 1995), we are unaware of any research that

has provided this sort of direct test of both instrumental and relational theories of procedural justice specifically in terms of whether or not perceptions of process fairness or the favorability of outcomes explain why relationship quality between authority figures is related to more positive reactions to organizational processes. In order to provide a more robust test as to whether or not performance ratings mediate the relationship between leader-member exchange and appraisal satisfaction, we included both supervisor-reported and self-report measures of performance ratings, given that each has its own set of strengths and limitations<sup>1</sup>.

*Procedural justice climate and individual level perceptions of fairness and appraisal reactions*

Although it is known among scholars and among managers that individual perceptions of process fairness are important when it comes to employee reactions to organizational procedures, what is less well known is the role that group processes and perceptions play in the formation of reactions to these procedures (Lind, Kray & Thompson, 1998). Group-level perceptions of fairness may be particularly important when it comes to procedural justice because of the importance individuals assign to group membership (Tyler & Lind, 1992), and also because individuals sometimes form justice perceptions that are inconsistent with their immediate self-interest (Lind & Tyler, 1988). In other words, individuals might evaluate a supervisor as unfair when the group evaluates said supervisor as unfair.

In the management and organization literature, group-level perceptions of process fairness have been conceptualized and operationalized as procedural justice climate—shared perceptions of employees in a work group about the fairness of their particular manager as related to the use and implementation of organizational procedures (i.e., Mossholder, Bennett, & Martin, 1998). Procedural justice climate is a “distinct group-level cognition about how a work

---

<sup>1</sup> Because we were not able to collect administrative performance ratings, we collected performance ratings from both supervisors and subordinates using a well established measure used for research purposes (see Methods section).

group as a whole is treated” (Naumann & Bennett, 2000, pg. 882). It is important to study group- and individual-level perceptions of procedural justice as related to appraisal reactions because they are independent constructs that have independent effects on individual level perceptions, attitudes and behaviors (e.g., Mossholder et al., 1998; Naumann & Benett, 2000). Although research on group level justice constructs is relatively limited (Liao & Rupp, 2005), research has found that procedural justice climate is related to a variety of attitudinal and performance related variables at the individual, group and business unit levels (e.g., Dietz et al., 2003; Liao & Rupp, 2005; Simons & Roberson, 2003).

We propose that procedural justice climate should predict individual’s perceptions of the fairness of their own performance appraisals and hence their reactions to the appraisal.

Individuals attend to and utilize information about the way the group as a whole is being treated (Rupp, 2011) as a frame of reference to understand how they themselves are treated (Brockner & Wisenfeld, 1996). When multiple group members have been treated in a similar way, let’s say multiple group members have experienced perceived injustices for instance, individuals have their own experience to validate the experiences of the group (Lind, Kray, & Thompson, 1998). Even when a particular individual has not experienced injustice personally, group-level justice judgments can affect individual-level justice judgments (Lind et al., 1988). Thus, we expect that individual ratees will rely on the group’s shared perception about procedural justice to interpret their own experience in the appraisal session. Indeed, when groups believe that their members are not treated fairly, they perceive this as an attack on the collective (Lind & Tyler, 1988; Tyler & Lind, 1992), which should influence their perceptions of the fairness by which procedures are implemented (Tyler & Lind, 1992) and their reaction to the procedure (Konovsky, 2000).

Hypothesis 3: Procedural justice climate will be positively related to performance appraisal procedural justice.

Hypothesis 4: Procedural justice climate will be positively related to appraisal satisfaction.

*Procedural justice climate as a cross-level moderator of LMX-procedural justice*

There is no research to our knowledge that examines the potential moderating role of procedural justice climate in performance appraisal procedural justice perceptions, and there is very little research developing or testing connections between leadership and procedural justice climate (with exceptions, e.g., Ehrhart, 2004). This is an important limitation of the management and organization literature, especially because justice perceptions should be studied in the social context within which they are embedded (e.g., Liao & Rupp, 2005).

Favorable treatment at the individual level from an authority figure signals that the individual is a valued group member (Tyler & Lind, 1992), which should be particularly important to individuals when the work group feels they are treated fairly by the authority figure (Naumann & Bennett, 2000). Thus, employees who have a high quality exchange with their supervisor will report more favorable perceptions of the fairness of their appraisal when procedural justice climate is high because the support they receive in the evaluation (e.g., in terms of participation, more favorable ratings, etc.) will be more salient and valuable to them. When employees as a group feel fairly treated by their supervisor and their overall evaluations of their supervisor are more positive, individual employees will utilize group perceptions of fairness as a reference in their evaluations of their own treatment in specific organizational procedures.

Conversely, when the collective perceives a supervisor as relatively unfair, the relationship between leader member exchange and performance appraisal procedural justice will



RUNNING HEAD: Group- and individual- level procedural justice and appraisal reactions

be mitigated. In this case, ratees will value a high quality exchange with their supervisor less because the group feels treated unfairly (Tyler & Lind, 1992), and it is accordingly less important to be treated well by the group's authority figure. Thus, the relationship between exchange quality and perceptions of the fairness of the procedure to the individual should be minimized. In this case, favorable treatment received as a function of a high quality exchange could be more likely to be seen as unfair, perhaps as a sign of favoritism or as gratuitous in some other way.

Hypothesis 5: Procedural justice climate will moderate the relationship between leader-member exchange and performance appraisal procedural justice: The relationship between leaders member exchange and procedural justice will be enhanced (mitigated) when procedural justice climate is high (low).

## Methods

### *Research Design*

### *Sample*

Data were collected from respondents working for a large, multinational firm with a consistent performance appraisal system throughout different parts of the organization<sup>2</sup>. Supervisors ( $N=62$ ) in this study had an average of about four years of experience with the organization, three years of experience in their current role, about ten and a half years of supervisory experience, and were, on average, about forty years old. Although we did not collect extensive information about the job history of supervisors, job titles ranged extensively from "assistant manager" to "CEO". Most all of the supervisor respondents were front-line supervisors (89%), whereas some were director level or above (11%). Titles of front-line supervisors

---

<sup>2</sup> These data are part of a larger study on supervisor-subordinate relationships, and this is the first research report published from that dataset.

RUNNING HEAD: Group- and individual- level procedural justice and appraisal reactions

included, for instance, “supervisor-electrical”, “financial manager”, and “facilities manager”. All but one of the supervisors in this study were male. Subordinate ratees in this study ( $N=221$ ) were working in the same office as the supervisors, reporting directly to the supervisors. Subordinate ratees had, on average, about thirteen years of work experience, were about thirty-six years old, and had about four and a half years of experience in their current role. Subordinates in this study occupied a wide variety of jobs across a variety of business functions, ranging from shop floor workers to advanced professionals. Representative job titles include, for instance, “foreman”, “technician”, “contracts specialist”, and “electrical engineer”. Subordinates were mostly male (93%).

#### *Data Analytic Strategy*

To test our hypotheses we used the multilevel modeling procedure in Mplus with maximum likelihood estimation and robust standard errors (MLR; Muthén & Muthén, 2011). This procedure provides simultaneous analysis of within- and between-group variance within a multivariate framework, thus allowing for the examination of higher level units (e.g., group) on lower level outcomes (e.g., individual) while maintaining the appropriate level of analysis (Hofmann, 1997). This is achieved by taking into account non-independence inherent in nested data. Following procedures proposed in the multilevel literature (Raudenbush & Bryk, 2002; Hofmann, 1997; Hofmann, Griffin, & Gavin, 2000), we tested increasingly complex mediation models starting with a fixed effects model with a group level clustering variable and ending with a random intercepts model to test for additional group-level main effects and a cross-level interaction. The group level of analysis in this study is the immediate work group, which is consistent with previous theory and research (e.g., Kozlowski & Bell, 2003; Liao & Rupp, 2005).

To test model indirect effects, we created Monte Carlo (MC) 95% confidence intervals (CI) based on 50,000 simulated draws from the distributions of model pathway parameters. MC methods were used as there is no agreed-upon best way to employ bootstrapping in multilevel modeling (see Preacher & Selig, 2012). Like bootstrapping procedures (e.g., MacKinnon, Lockwood, & Williams, 2004; Preacher & Hayes, 2008), this method allows for testing of multiple mediators simultaneously, does not rely on the assumption of a normal sampling distribution, and has the advantage of greater statistical power while reducing the likelihood of Type 1 error. Additionally, this method has been shown to perform on par with bootstrapping procedures, and Preacher and Selig (2012) state that “MC may be the only viable method” within a multilevel context (p. 94). MC builds a distribution of the indirect effects from the distributions of model pathway parameters, which can be used to construct confidence intervals around the indirect effects. CI that exclude zero provide evidence of significant indirect effects (Shrout & Bolger, 2002).

### *Measures*

All of the measures used in this study have been validated and in previous research. We chose measures of each of the constructs in our study carefully based on their measurement properties, their use in previous research and, where possible, their relevance to the performance appraisal context.

*Leader-member exchange.* We measured leader-member exchange using the scale developed by Scandura and Graen (1984), which has been used extensively in subsequent research. An example item is “Does this subordinate know your level of satisfaction with his/her performance”. The estimated internal consistency reliability estimate in this study is  $\alpha = .75$ .

*Procedural justice in performance appraisal.* We measured the extent to which ratees felt the performance appraisal process was fair using four items from the procedural justice scale developed by Dulebohn and Ferris (1999)<sup>3</sup>. We chose this measure, in part, because it is specific to the performance appraisal context. An example item is “Your supervisor considered important aspects of your work when rating you”. The internal consistency reliability estimate of this scale in the study by Dulebohn and Ferris was  $\alpha = .86$ ; the estimate in this study is  $\alpha = .84$ .

*Performance rating.* We did not have access to administrative performance ratings, but we wanted to assess rater perceptions of ratee performance and the favorability of ratee’s performance ratings. We measured performance using the behavioral performance rating scale developed by Varma, DeNisi and Peters (1996), which has been used in subsequent research. We asked raters – i.e., supervisors – to respond to items in this scale as if they were doing so for an administrative review. To increase our ability to capture the relationship between performance ratings and appraisal reactions, we also asked ratees to rate themselves on the same task performance scale based on their recollection of the way in which they were rated in their actual performance review. An example item is “How would you rate his/her quantity of work?”. Varma, DeNisi and Peters (1996) reported an internal consistency reliability estimate of  $\alpha = .90$ . The estimates in this study are  $\alpha = .89$  for supervisors and  $\alpha = .65$  for subordinates.

*Procedural justice climate.* Shared perceptions of the extent to which supervisors are fair across different administrative processes were measured using the procedural justice climate scale developed by Mossholder, Bennett and Martin (1998). The authors reported an internal consistency reliability estimate of  $\alpha = .81$ ; the estimate in the current study is  $\alpha = .70$ . An

---

<sup>3</sup> Two items that measured more interpersonal aspects of justice (e.g., respect for rights) were not used in this study given concerns that this would contaminate the measure, i.e., tap aspects of interactional rather than procedural justice.

RUNNING HEAD: Group- and individual- level procedural justice and appraisal reactions

example item is “Overall, how fair are the procedures and policies your supervisor and your organization follow in determining the size of pay raises?”. Consistent with previous research, we operationalized procedural justice climate using a group-level aggregate score (e.g., Roberson & Colquitt, 2005). Also consistent with previous research (e.g., Liao & Rupp, 2005), we computed the  $r_{wg}$  statistic to estimate within-group agreement of respondents within workgroups as to procedural justice climate;  $r_{wg}$  was .87 in this study, indicating a strong to very strong level of agreement (LeBreton & Senter, 2008).

*Appraisal satisfaction.* Ratee’s satisfaction with the performance appraisal process was measured using the scale developed by Greller (1978), which has been used extensively in subsequent performance appraisal research (see Cawley et al., 1998). The internal consistency reliability estimate in that study was  $\alpha = .81$ ; the estimate in the current study is  $\alpha = .69$ . An example item is “I felt good with the way the appraisal was conducted”.

## Results

Before testing our hypotheses, we tested the fit of the data to our measurement model. Results were as follows:  $\chi^2(179) = 324.59$ ; RMSEA = .06; NNFI = .95, SRMR = .06. Smaller chi-square statistics represent better fit, but this is a statistic that is highly sensitive to sample size; an RMSEA < .08 indicates acceptable fit; a NNFI > .95 indicates good fit; and an SRMR < .08 is considered good fit (e.g., Hu & Bentler, 1999). The fit statistics for our a priori model indicate that the model is a good fit to the data. We compared the fit of this model to an alternative, plausible model—a nested model with four factors, i.e., with performance appraisal procedural justice and procedural justice climate items loading on a single factor. Results indicate that the data fit the model,  $\chi^2(183) = 356.51$ ; RMSEA = .07; NNFI = .95, SRMR = .07. The original model was a significantly better fit, however, as per a chi-square difference test ( $\Delta_{df}$

RUNNING HEAD: Group- and individual- level procedural justice and appraisal reactions

= 4;  $\chi^2_{\text{crit}} = 9.488$ ;  $\Delta \chi^2 = 31.92$ ), which suggests that our proposed a priori factor structure is a good fit to the data. Correlations between variables are reported in Table 1. At the bivariate level, leader-member exchange was correlated with procedural justice, supervisor rated performance, self-recalled performance and appraisal satisfaction. Appraisal satisfaction was correlated with procedural justice, self-recalled performance, but not performance ratings. Procedural justice climate was correlated with procedural justice and appraisal satisfaction.

Prior to model testing, we examined the null model for procedural justice to support the aggregation of procedural justice into a climate variable. The resulting ICC revealed that 24.06 percent of the variance in procedural justice resides between workgroups ( $p < .01$ ). Accordingly, we conclude that there is significant between group-variation, in addition to within-group agreement as per above for procedural justice climate, and thus it is appropriate to operationalize it as a workgroup-level variable (constructed from ratee perceptions). Following procedures proposed in the multilevel literature, we tested increasingly complex mediation models. This model testing and comparison included: 1) a fixed effects model with a group-level clustering variable, 2) a random intercepts model with a group-level clustering variable, 3) a random intercepts model with group-level main effects, and 4) a random intercepts model with group-level main effects and a cross-level interaction. Based on the Akaike information criterion (AIC), the sequential addition of random intercepts and group-level pathways resulted in improved model fit (Model 1 = 1358.36; Model 2 = 1323.91; Model 3 = 1321.93; Model 4 = 1193.14). Additionally, all direct and indirect effects remained stable across the models tested. Accordingly, we focus on the model parameters of the final random intercepts model with group-level main effects and a cross-level interaction.

The direct effect results of the final model are reported in Figure 1. Leader-member exchange was significantly related to procedural justice and self-recalled performance in the expected direction, but not supervisor-rated performance. Procedural justice was positively related to appraisal satisfaction, but supervisor ratings and self ratings were not. Monte Carlo results for indirect effects associated with Hypotheses 1 and 2 are reported in Table 2.

Specifically, the indirect effects for procedural justice, but not supervisor rated performance or self-rated performance, significantly mediated the relationship between leader-member exchange and appraisal satisfaction. Further, the significant relationship between leader-member exchange and appraisal satisfaction became much smaller after controlling for the mediators suggesting partial mediation (Baron & Kenny, 1986). Collectively these results support Hypothesis 1, but not Hypotheses 2a or 2b, and suggest that the relationship between leader-member exchange and appraisal satisfaction is mediated by procedural justice, but neither source of performance ratings.

The group-level main effects and cross-level interaction of the final model are reported in Figure 1. Group-level procedural justice climate was significantly related to individual-level perceptions of performance appraisal procedural justice and individual-level perceptions of appraisal satisfaction, providing support for Hypotheses 3 and 4. Procedural justice climate did not moderate the relationship between leader-member exchange and procedural justice, thus Hypothesis 5 was not supported. In regard to model fit, the SRMR for the hypothesized model was .07 (within) and .12 (between). Using conventional cutoff criteria (e.g., Hu & Bentler, 1999), these results suggest that the model parameters proposed at the within-group level fit the data well, while the model parameters proposed at the between-group level can be improved.

## Discussion

The organizational justice literature has been unclear as to whether the relationship between leader-member exchange and reactions to resource allocation decisions is largely a function of better outcomes (e.g., ratings), procedural fairness or perhaps both. What is also unclear is the role of procedural justice climate in perceptions of the fairness of and reactions to organizational procedures. We decided to address these important limitations by studying employee reactions to perhaps one of the most widely studied and important organizational procedures—performance appraisal. Propositions from leader-member exchange and procedural justice theories were integrated in this article so as to develop and test a more complete model of performance appraisal reactions than has been tested in the literature heretofore.

Consistent with previous research, leader-member exchange was a significant predictor of rater reports of performance appraisal procedural justice, performance ratings and appraisal satisfaction. Procedural justice, but not performance ratings, partially mediated the relationship between leader-member exchange and appraisal satisfaction. This highlights the importance of process fairness to reactions to organizational procedures that are bound by the relationship quality with one's authority figure. Group-level perceptions of procedural justice were related to more specific, individual-level perceptions of the fairness of the performance appraisal process itself, as well as to appraisal satisfaction. These are novel findings to the literature, findings which we think are important and deserve future attention. In total, our results suggest that reactions to appraisals are more relationship-based than instrumentally-based.

#### *Implications for Theory and Research*

A key proposition tested in this article, one that we feel is important to the procedural justice literature, is that group-level perceptions of justice are related to individual reactions to and judgments about the fairness by which they've been treated. This proposition was supported



RUNNING HEAD: Group- and individual- level procedural justice and appraisal reactions

by the finding that procedural justice climate predicted performance appraisal procedural justice, which suggests that organizational justice theory should more fully consider how group- and individual-level justice constructs are related to one another. We feel that developing a rationale as to why procedural justice climate should be related to individual-level performance appraisal procedural justice is an important contribution of this article. Procedural justice climate also predicted appraisal satisfaction, suggesting that it is important, as previous research would suggest, to include both individual and group-level perceptions of fairness when studying reactions to organizational policies, procedures and resource allocation systems. The point here is that individual's perceptions of the fairness by which authorities treat the group as a whole can potentially have a profound impact on individuals' reactions to how they themselves have been treated and, ultimately, on their more general attitudes and behaviors.

We also tested the proposition that a work group's assessment of the fairness of their supervisor (procedural justice climate) should bound the form of the relationship between leader-member exchange and performance appraisal procedural justice. Although procedural justice climate was not a significant cross-level moderator in this study, we feel that the conceptual work done to elucidate how procedural justice climate might influence the performance appraisal process is important, as is the work that was done to explain how procedural justice climate and leader-member exchange may interactively predict individual level perceptions of justice. It seems important for future research to more fully understand the social dynamics between leaders and members – as well as between leaders, members and the work group as a collective – in terms of how procedural justice judgments are formed (Lind et al., 1998). Indeed, the weaker between (vs. within) model fit value may suggest the need for further examination and inclusion of related group-level predictors and cross-level moderators.

Previous research has found that leader-member exchange is related to perceptions of performance appraisal fairness and to more favorable performance ratings. Although limited to perhaps one study, research has also shown that perceptions of justice explain the relationship between exchange quality and appraisal reactions (Elicker et al., 2006), which was supported in this study. Extending previous research, this study found that performance ratings did not mediate the relationship between exchange quality and appraisal satisfaction—neither supervisor- or self-reported performance ratings. In total, these results suggest that the quality of the relationship one has with the group’s authority figure and the procedural fairness offered to the individual in the procedure predict employee reactions to procedures—not necessarily the favorability or perceived favorability of the outcome of the procedure<sup>4</sup>. This is consistent with research that has show perceptions of value-expressive voice (i.e., feeling that one’s voice has been heard) are more important to individuals than are perceptions of instrumental voice (i.e., that one has influenced the outcome of the procedure – see Cawley et al., 1998). It is important that our findings be tested across other organizational procedures to test their generalizability.

#### *Implications for Organizations and Managers*

Perceptions of process fairness matter to individuals. Although this in and of itself is not new, what is important to take away from this study is that perceptions of process fairness – both at the individual and group levels – may be particularly important in the context of performance appraisals. Results of our study suggest that organizations and managers need to pay close attention to the extent to which ratees perceive that the performance appraisal process was procedurally fair. It is critical that employee perceptions are measured and addressed on a regular

---

<sup>4</sup> As explained above, this set of findings and the implications of these findings was confirmed when the same model and data were tested, except with LMX as measured by the supervisor as a replacement for LMX as measured by the subordinate. Thus, these results are not simply due to relationship quality data and justice data being measured from a particular perspective, i.e., that of the subordinate ratee.

RUNNING HEAD: Group- and individual- level procedural justice and appraisal reactions

basis, including when performance appraisals occur in an organization, and that this information is shared in an effective way with front-line supervisors. In addition to conducting employee “attitude surveys” on a regular basis, it is important that supervisors inquire more informally from their subordinates how they feel about the organization’s performance appraisal procedures and practices, as well as their implementation of the system. However, when subordinates do note specific issues with the system or its implementation, and/or offer specific suggestions it is important that the manager take these into consideration, and keep the employee(s) posted on the actions taken on their suggestions. Otherwise, the practice of inquiring is likely to have the opposite effect.

Of course, none of this is likely to work, if employees don’t understand the company’s performance appraisal related procedures and practices. Thus, it is critical that managers meet with employees to discuss performance appraisal processes as well as the standards to which they will be held accountable in the review. This can increase perceptions that the manager is supportive and fair, as well as improve overall reactions to the appraisal system. Also, organizations should set up systems whereby employees can seek clarifications when they have questions about the procedures, both from their managers and from human resources representatives.. This should help increase employee perceptions of fairness. The caveat here is that organizations must ensure that individual managers do not make too many deviations from policies and procedures that have been established to ensure consistency and process fairness. When organizations establish procedurally fair policies and procedures, and when managers follow them in the right spirit, employees are much more likely to believe that the organization is fair and that managers are supportive of and care about them, respectively. The benefit to the

RUNNING HEAD: Group- and individual- level procedural justice and appraisal reactions

organization is more committed, motivated and higher performing employees. Indeed, performance appraisal reactions are correlated with job attitudes and subsequent performance.

Our results suggest that reactions to performance appraisals are more relationship-based than instrumentally formed. This is important because a key goal of the performance appraisal process is to differentiate the job performance of ratees; thus, not all ratees may receive a favorable performance rating, or one that is perceived as favorable. In fact, results of this study suggest that ratees can be satisfied with the performance appraisal session even if their rating is not so favorable, assuming that (i). they are treated fairly in the appraisal session and (ii). ratees generally agree that the rater is fair across important organizational processes. The former is highly consistent with the organizational justice literature and the latter is a more novel finding. This is important to managers: our results suggest that managers can improve reactions to performance appraisals, and thereby improve employee motivation and performance, even when assigning performance ratings that actually differentiate employees based on their performance!

The question becomes, how can managers be perceived as fair by the subordinates in their workgroup across as related to a variety of procedures, including performance appraisals? From a practical perspective, we would suggest that this requires that human resource management departments develop training programs for managers that focus on two key areas: first, being more supportive of employees and second, on allowing participation in the performance appraisal session. Supervisor support involves emotional support, i.e., employees feel that their supervisor genuinely cares about them and their well-being, and instrumental support, i.e., employees feel that their supervisor is attentive to them and provides the structure and resources they need to perform effectively. The key here is that *all* employees need to feel cared for and supported, which is inconsistent with the ways in which most managers form work

RUNNING HEAD: Group- and individual- level procedural justice and appraisal reactions

relationships with their employees. Participation in the performance appraisal can involve allowing air time for the employee to talk, mutual goal setting for future performance and the supervisor listening actively to the employee so as to ensure the employee's perspective is heard and understood. Furthermore, human resource professionals could develop communications to ensure that everyone in the organization is aware of the fact that managers receive such training, as well as the importance and potential impact of this type of training.

#### *Study Limitations and Implications for Future Performance Appraisal Research*

While the present study has added to the literatures on performance appraisals, it does have certain limitations. First, more longitudinal research is needed to test the direction of relationships in this model and to allow more causal inferences to be made about the nature of relationships in the social context of performance appraisal. It would also be helpful if data were collected with larger samples so that the findings may be more robust and perhaps generalizable. Next, ratings collected for research purposes have limitations, and supervisor and subordinate raters also tend to rate target performance differently as well (Greguras, Robie, Schleicher, & Goff, 2003). Having both sources of ratings allows for a more robust test as to whether or not performance ratings (outcome favorability) are important to ratee reactions to performance appraisals, yet researchers should consider using administrative ratings when possible. Researchers should also include other types of appraisal reactions, such as motivation to improve performance so we can better understand the relationship between appraisal reactions and future performance intentions. Finally, appraisal research would be better served by conducting more cross-level investigations.

#### Conclusion

Our results support a more relational than instrumental view of the appraisal process, suggesting that managers should pay attention to and actively manage employee perceptions of the extent to which they are supportive of and fair to employees--as individuals and as members of a workgroup. This is important because the leader-member exchange literature clearly indicates managers treat some employees more favorably than others based on in- and out-group status. Managers should consider the benefits of treating all of their subordinate employees in a way that would make them feel like they are part of a high-quality exchange and that they are valued group members. This could include being deliberate about encouraging participation in the appraisal session and active listening to ensure that employees feel that they have been heard in the session.

References

- Aquino, K. (1995). Relationships among pay inequity, perceptions of procedural justice, and organizational citizenship. *Employee Rights and Responsibilities Journal*, 8 (1), 21-33.
- Arvey, D., & Murphy, K. (1998). Performance evaluation in work settings. *Annual Review of Psychology*, 49, 141-168.
- Balzer, W.K., Sulsky, L.M. (1990). Performance appraisal effectiveness. In Murphy, K.R., Saal, F.E. (Eds), *Psychology in Organizations: Integrating Science and Practice*. Erlbaum, Hillsdale, NJ, pp.133-56.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality & Social Psychology*, 51, 1173-1182.
- Bentler, P. M. (1990). Comparative fit indices in structural equation modeling. *Psychological Bulletin*, 107, 238-246.
- Bentler, P. M. (1995). *EQS structural equations program manual*. Encino, CA: Multivariate Software.
- Browne, M. W. & Cudeck, R. (1993). Alternative ways of assessing model fit. In K.A. Bollen & J.S. Long (Eds.), *Testing structural equation models* (pp. 136-162). Newbury Park, CA: Sage.
- Caligiuri, P. (1997) Assessing expatriate success: Beyond just “being there.” In Aycan, Z. (ed.). *Expatriate Management: Theory and Practice*, Greenwich: JAI Press, 117-140.
- Cawley, B.D., Keeping, L.M., & Levy, P.E. (1998). Participation in the performance

- appraisal process and employee reactions: A meta-analytic review of field investigations. *Journal of Applied Psychology*, 83 (4), 615-633.
- Cogliser, C.C., Schriesheim, C.A., Scandura, T.A., Gardner, W.L. (2009). Balance in leader and follower perceptions of leader-member exchange: relationships with performance and work attitudes. *The Leadership Quarterly*, 20 (3), 452-65.
- Dansereau, F., Graen, G., & Haga, W.J. (1975). A vertical dyad linkage approach to leadership within formal organizations: A longitudinal investigation of the role making process. *Organizational Behavior and Human Performance*, 13, 46–78.
- DeNisi, A, & Gonzalez, J.A. (2000). Performance appraisal. In E. Locke (Ed.), *A Handbook of Principles of Organizational Behavior*. London: Blackwell (pp. 60-72).
- Dowling, P.J., & Schuler, R.S. (1990). *International dimensions of human resources management*. Boston: PWS Kent.
- Dulebohn, J.H., & Ferris. G.R. (1999). The role of influence tactics in perceptions of performance evaluation's fairness. *Academy of Management Journal*, 42 (3), 288-303.
- Elicker, J.D., Levy, P.E., & Hall, R.J. (2006). The role of leader-member exchange in the performance appraisal process. *Journal of Management*, 32, 531-551.
- Folger, R. (1977). Distributive and procedural justice: Combined impact of "voice" and improvement on experienced inequity. *Journal of Personality and Social Psychology*, 35, 108- 119
- 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.



RUNNING HEAD: Group- and individual- level procedural justice and appraisal reactions

- Gouldner, A.W. (1960). The norm of reciprocity: A preliminary statement. *American Sociological Review*, 25, 161-178.
- Graen, G. 1976. Role making processes within complex organizations. In M. D. Dunette (Ed.), *Handbook of industrial and organizational psychology*: 1201-1245. Chicago: Rand McNally.
- Graen, G., & Cashman, J. 1975. A role-making model of leadership in formal organizations: A developmental approach. In J. Hunt & L. Larson (Eds.), *Leadership frontiers*: 143-165. Kent, OH: Kent State University 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: Applying a multi-level multi-domain perspective. *Leadership Quarterly*, 6, 219-247.
- Gregersen, H.B., Hite, J.M., and Black, J.S. (1996). Expatriate performance appraisal in U.S. multinational firms. *Journal of International Business Studies*, 27, 711-738.
- Greguras, G., Robie, C., Schleicher, D.J., Goff, M. (2003). A field study of the effects of rating purpose on the quality of multisource ratings. *Personnel Psychology*, 56, 1-21.
- Greller, M.M. (1978). The nature of subordinate participation in the appraisal interview. *Academy of Management Journal*, 21 (4), 646-658.
- Hofmann, D. A. (1997). An overview of the logic and rationale of hierarchical linear models. *Journal of Management*, 23, 723-744.
- Hofmann, D. A., Griffin, M. A., & Gavin, M. B. (2000). The application of hierarchical linear modeling to organizational research. In K.J. Klein & S. W. Kozlowski (Eds.), *Multilevel*

- theory, research, and methods in organizations*. 467-511. San Francisco, CA: Jossey-Bass, Inc.
- House, J.S., Landis, K.R., & Umberson, D. (1988). Social relationships and health. *Science*, *241* (4865), 540-545.
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, *6*, 1–55.
- Jawahar, I.M. (2006). An investigation of potential consequences of satisfaction with appraisal feedback. *Journal of Leadership and Organizational Studies*, *13* (2), 14-28.
- Kacmar, K.M., Witt, L.A., Zivnuska, S., & Gully, S.M. (2003). The interactive effects of leader-member exchange and communication frequency on performance ratings. *Journal of Applied Psychology*, *88* (4), 764-772.
- Konovsky, M.A. (2000). Understanding procedural justice and its impact on business organizations. *Journal of Management*, *26* (3), 489-512.
- Kraimer, M. L., Wayne, S. J., & Jaworski, R. A. 2001. Sources of support and expatriate performance: The mediating role of expatriate adjustment. *Personnel Psychology*, *54* (1): 71-99.
- Liao, H. & Rupp, D. (2005). The impact of justice climate, climate strength, and justice orientation on work outcomes: A multilevel-multifoci framework. *Journal of Applied Psychology*, *90*, 242-256.
- Liden, R.C., Sparrow, R.T., & Wayne, S.J. (1997). Leader member exchange theory: The past, present and the potential future. *Research in Personnel and Human Resources Management*, *15*, 47-119.

- Lind, E.A., & Tyler, T.R. (1988). *The social psychology of procedural justice*. N.Y.: Plenum.
- Lind, E. A., Kanfer, R., & Earley, P. C. (1990). Voice, control, and procedural justice: Instrumental and noninstrumental concerns in fairness judgments. *Journal of Personality and Social Psychology*, *59*, 952–959.
- MacKinnon, D. P., Lockwood, C. M., & Williams, J. (2004). Confidence limits for the indirect effect: Distribution of the product and resampling methods. *Multivariate Behavioral Research*, *39*, 99-128.
- Maslyn, J.M., & Uhl-Bien, M. (2001). LMX and its dimensions: Effects of self effort and other's effort on relationship quality. *Journal of Applied Psychology*, *86* (4), 697-708.
- 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.
- Mossholder, K.W., Bennett, N., & Martin, C.L. (1998). A multilevel analysis of procedural justice context. *Journal of Organizational Behavior*, *19*, 131-141.
- Murphy, K.R., & Cleveland, J.N. (1995). *Understanding performance appraisal: Social, organizational, and goal-based perspectives*. Thousand Oaks: Sage.
- Muthén, L. K., & Muthén, B. O. (2011). Mplus. *Statistical analysis with latent variables. Version, 6.12*.
- Nathan, B.R., Mohrman, A.M., & Milliman, J. (1991). Interpersonal relations as a context for the effects of appraisal interviews on performance and satisfaction: A longitudinal study. *Academy of Management Journal*, *34* (2), 352-369.

RUNNING HEAD: Group- and individual- level procedural justice and appraisal reactions

Naumann, S.E., & Bennett, N. (2000). A case for procedural justice climate: Development and test of a multilevel model. *Academy of Management Journal*, 43 (5), 881-889.

Pettijohn, C.E., Pettijohn, L.S., & d'Amico (2001). Characteristics of performance appraisals and their impact on sales force satisfaction. *Human Resource Development Quarterly*, 12 (2), 127-146.

Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40, 879-891.

Preacher, K. J., & Selig, J. P. (2012). Advantages of Monte Carlo confidence intervals for indirect effects. *Communication Methods and Measures*, 6(2), 77-98.

Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical linear models: Application and data analysis methods* (2nd ed.). Newbury Park: Sage.

Rupp, D.E. (2011). An employee-centered model of organizational justice and social responsibility. *Organizational Psychology Review*, 1 (1), 72-94.

Rupp, D.E., & Aquino, K. (2009). Nothing so practical as a good justice theory. *Industrial and Organizational Psychology*, 2 (2) 205-210.

Scandura, T., & Graen, G. (1984). Moderating effects of initial leader-member exchange status on the effects of leadership intervention. *Journal of Applied Psychology*, 69, 428-436.

Scandura, T.A., Graen, G.B., & Novak, M.A. (1986). When managers decide not to decide autocratically: An investigation of leader-member exchange and decision influence. *Journal of Applied Psychology*, 71, 579-584.

Shih, H.A., Chiang, Y.H, & Kim, I.S. (2005). Expatriate performance management from MNEs of different national origins. *International Journal of Manpower*, 26, 157-176.

RUNNING HEAD: Group- and individual- level procedural justice and appraisal reactions

Shrout, P. E., & Bolger, N. (2002). Mediation in experimental and nonexperimental studies: New procedures and recommendations. *Psychological Methods*, 7, 422–445.

Tahvanainen, M. (2000). Expatriate Performance Management: the case of Nokia Telecommunications. *Human Resource Management*, 37, 267-275.

Tripp, T. M., Sondak, H., & Bies, R. J. (1995). Justice as rationality: A relational perspective on fairness in negotiations. In R. J. Bies, R. J. Lewicki & B. H. Sheppard (Eds.), *Research on negotiation in organization* (5th ed., pp. 45-64). Greenwich, CN: JAI Press.

Tung, R.L., & Varma, A. (2008). Expatriate selection and evaluation. In Smith, P.B., Peterson, M.F., & Thomas, D.C. (Eds.), *Handbook of Cross-Cultural Management Research*, Sage, pp. 367-378.

Tyler, T.R. (1994). Psychological models of the justice motive. *Journal of Personality and Social Psychology*, 67, 850-863.

Tyler, T.R., & Lind, E.A. (1992). A relational model of authority in groups. *Advances in Experimental Social Psychology*, 25, 115 - 191.

Van den Bos, K., Lind, E. A., Vermunt, R., & Wilke, H. A. M. (1997). How do I judge my outcome when I do not know the outcome of others? The psychology of the fair process effect. *Journal of Personality and Social Psychology*, 72, 1034-1046.

Varma, A., DeNisi, A.S., & Peters, L.H. (1996). Interpersonal affect and performance appraisal. *Personnel Psychology*, 49(2): 341-360.

Varma, A., Pichler, S., & Budhwar, P. (2011). The relationship between expatriate job level and host country national categorization: An investigation in the United Kingdom. *International Journal of Human Resource Management*, 22 (1), 103.

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.

Wexley, K.N., & Klimoski, R. (1984). Performance appraisal: an update. In Rowland, K.M., Ferris, G.R. (Eds), *Research in Personnel and Human Resources Management* (Vol. 2). JAI Press, Greenwich, CT. (pp. 23-79).

Table 1. *Correlations and reliabilities for model variables.*

Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
Individual Level								
1. Leader-Member Exchange	3.88	.54	(.75)					
2. Supervisor rating	3.66	.60	.18**	(.89)				
3. Self rating	3.94	.51	.24***	.27***	(.65)			
4. Procedural Justice	3.89	.58	.54***	.24***	.33***	(.84)		
5. Appraisal Satisfaction	3.76	.72	.52***	.12	.21**	.68***	(.69)	
Group Level								
6. Group Climate	3.56	.40	.25***	.02	.08	.29***	.25***	(.70)

Note. *N* ranged from 218 to 221. Group climate is reported at the individual level.

\*\**p* < .01

\*\*\**p* < .001

Table 2. *Monte Carlo results for indirect effects of LMX on Appraisal Satisfaction.*

Mediator	Estimate	SE	95% CI	
			Lower	Upper
Procedural Justice	.38	.08	.23	.54
Supervisor Rating	-.02	.02	-.07	.01
Self Rating	.00	.02	-.05	.06

Note: *N* = 218. 95% CI based on 50,000 simulated draws from the distributions for pathway parameters.

Figure 1. Model of performance appraisal reactions

