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CONTRASTING THE EFFECTS OF LEADERSHIP STYLES ON DIFFERENT WORKGROUPS – AN EMPIRICAL STUDY ON EMPLOYEE PERCEPTIONS OF JUSTICE, LEADER CREDIBILITY, AND GROUP COMMITMENT

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This study examined the effects of contrasting leadership styles on the behavior of team members in different group settings. Two leadership styles (directive and transformational) and two types of teams (functional and cross-functional) were controlled in an experiment to assess their impact on perceptions of procedural and interpersonal justice. The subsequent impact of procedural and interpersonal justice perceptions on leadership credibility and group commitment were also examined. The results suggested that leadership style and group type have different effects on team member's perceptions of procedural justice and interpersonal justice. Leadership credibility was found to fully mediate the effects of procedural justice and interpersonal justice perceptions on group commitment.

Organizations remain in constant pursuit of ways to improve efficiencies, develop competitive advantages, and adapt to forces in a dynamic environment. In this pursuit, teams have become increasingly important to organizational success, evidenced by the growing trend of organizations to use more team-based structures (Mayer, Nishii, Schneider, & Goldstein, 2007). This upward trend in work teams has increased the motivation for organizations to identify ways to enhance the team's productivity and satisfaction (Kahai, Soski & Avolio, 1997). Teams are thought to provide an excellent means of integrating the unique skills of individuals to produce better performance across a variety of tasks than could be achieved by any individual working alone or by individuals working outside a team structure (Katzenbach & Smith, 1993). However, team failures due to negative behaviors are frequent (Hlavacek & Thompson, 1978), and simply forming a team does not guarantee success or effectiveness for an organization.

Within the past twenty-five years, there has been an increase of theoretical work conducted on team effectiveness, which has sought to better understand the antecedents, processes, and emergent states that facilitate effective team outcomes (Burke, Stagl, Klein, Goodwin, Salas, & Halpin, 2006). Having long established that leadership is key to individual and organizational success (Bass, 1990; Burke et al., 2006), researchers have also recognized leadership's importance in a team context, contending that leadership is the most important variable impacting team effectiveness (Parker, 1990). However, it is essential that team members perceive leaders as fair. Ineffective teams often are the result of employee resistance to the team formation, and this resistance is often based on anticipated injustices enacted by leadership that may occur within a team structure (Colquitt & Jackson, 2006; Roberson & Colquitt, 2005; Shapiro & Kirkman, 2001). Since leadership is a key group attribute, it is important to examine how different leader behaviors influence work teams (Kahai, Sosik, & Avolio, 1997). Faced with dynamic changes in the workplace, leaders must be able to adjust their behavior to fit

the situation, individuals, and teams they are leading (Rubin & Goldman, 1968).

Most studies have examined the effectiveness of different leadership styles (behaviors) in terms of their contribution to group effectiveness. Liu, Lepak, Takeuchi, & Sims, (2003) proposed a framework matching leadership styles (e.g. directive, transactional, transformational, and empowering) with the different underlying characteristics of work teams in different employment arrangements (e.g. contracting, alliance/partnership, knowledge-based, and job-based). Their framework was based on the assumptions that "a) different employment modes are associated with different underlying objectives and psychological obligations between employees and organizations, and b) leadership styles that are more consistent with these characteristics of each employment mode are likely to be most effective" (p. 144).

This paper answers Liu et al.'s (2003) call for research on leadership styles and groups by addressing two key issues: a) the impact on employee concerns of fairness and equity as a result of using different leadership styles (behaviors) in different group types (e.g. functional and cross-functional teams), and b) the impact of employee perceptions of fairness and equity on leadership credibility. In addition, two related issues were developed around the construct of group commitment as the dependent variable of perceived fairness and equity. Thus, the following issues were also explored in the paper: c) the impact of fairness and equity perceptions on group commitment intentions, and d) the impact of leadership credibility to group commitment intentions.

LITERATURE REVIEW

Leadership Theory and Leadership Styles

No single definition of leadership has been universally accepted and there are almost as many definitions of leadership as there are persons who have attempted to define

the concept (Stogdill, 1974; Yukl, 2006). Jacobs & Jacques' (1990) definition is particularly applicable towards groups (teams); "Leadership is a process of giving purpose (meaningful direction) to collective effort, and causing willing effort to be expended to achieve purpose." Leaders play an influential role in groups by instilling a willingness among team members to work towards a common purpose, thereby allowing the teams to accomplish their objectives and allowing organizations to capitalize on the advantages that teams offer.

Just as no two individuals are exactly the same and given that leaders and followers have different traits, values and levels of motivation, it stands to reason that personal and situational characteristics play a significant role in leadership effectiveness. Contingency theories of leadership explain leadership effectiveness in terms of situational moderator variables (Yukl, 2006). Fiedler's (1964) contingency model suggests that leadership effectiveness is contingent upon the interaction between leadership style and situational favorableness, as the situation provides the leader with the potential power and influence over the follower's behavior. Thus, leader effectiveness depends on leader-, follower- and task- related factors (Tatum, Eberlin, Kottraba, & Bradberry, 2003).

As for leadership style, researchers have conceptualized various typologies, including: directive (House, 1971); transactional (Burke et al., 2006); transformational (Bass, 1985); and empowering (Liu et al., 2003). Directive and transactional leadership styles are characterized as "task-oriented", while transformational and empowering styles of leadership are characterized as "relations-oriented" (Yukl, 2006). The focus of this paper is on two leadership styles: directive and transformational. These two leadership styles were chosen because their dissimilarities are sizeable enough to allow for a clearer understanding of how group perceptions are likely to be affected by such contrasting leadership styles.

Directive leaders essentially tell subordinates what to do and how to do it (Stoker, 2008). Participants under a directive leader are likely to interpret that they have to conform to a set of directives (Kahai, et al, 1997). Whereas inexperienced employees may appreciate the reduction of task ambiguity provided by directive leadership; experienced team members might find directive behaviors redundant and over-controlling, potentially decreasing their intrinsic motivation (Stoker, 2008). In contrast to the task focus, transformational leadership emphasizes the emotional and symbolic aspects of inner-team relationships (Burns, 1978). This perspective provides understanding on how leaders influence followers and motivate them to make self-sacrifices and put the needs of the mission or organization above self-interests. The means is through developing a closer relationship between a leader and the followers on the basis of trust and commitment, emphasizing longer-term and vision-based motivational processes (Bass & Avolio, 1997; Jung & Avolio, 1999; Liu et al., 2003).

Contingency theories of leadership contend that "different leadership behaviors are required in different situations in order to achieve effectiveness" (Hill, 1973, p. 35) and researchers have found that most managers believe there is no single universal leadership behavior applicable in all task contexts and for all groups (Lord, Brown, Harvey, & Hall, 2001; Yun, Cox & Sims, 2006). A task-oriented (directive) leadership style may be appropriate when the leader is more experienced with a task than the followers; whereas, a relations-oriented (transformational) leadership style may be appropriate when group members are equally experienced and can be trusted to work autonomously (Tatum et al., 2003).

Group Types

Yukl (2006) defined several types of teams that can be found within an organization, two of which are the most typical: functional and cross-functional. "Functional teams are characterized by members of an organization with specialized jobs but are all part of the same basic function (e.g. maintenance, quality, etc.). Cross-Functional teams are characterized by members from a combination of functional subunits (e.g. quality, production, sales, and maintenance) working together on projects that require joint problem-solving skills.

Given enough time in a typical organization, most employees gain needed experience with the common tasks they handle. However, the compositions of team members can still vary significantly for different tasks in the same organization and for similar tasks across different organizations. Teams with greater latitude over their own behavior are thought to have the greatest potential impact on firm performance (Hambrick & Abrahamson, 1995). Meanwhile, appropriate leadership style and conduct may be more critical for members of different backgrounds to work effectively together.

Organizational Justice

The path-goal theory of leadership (House, 1971; House & Mitchell, 1974) suggests that different leader behaviors are appropriate and contingent upon aspects of the situation, including task characteristics and subordinate characteristics. Situational leadership theory (Hersey & Blanchard, 1977) suggests that level of subordinate maturity in relation to the work demands the appropriate type of leadership behavior. Both theories suggest that subordinates are likely to be treated differently by leaders in different settings. Such relational inequalities lead to variation in their justice perceptions (Roberson & Colquitt, 2005).

Organizational justice theory is based on the idea that a set of justice rules is used by individuals to evaluate fair treatment, and the extent to which those rules are satisfied or violated determines the perceptions of justice or injustice (Mayer, et al., 2007). Organizational justice suggests that

fair procedures enhance employee acceptance of organizational outcomes (Latham & Pinder, 2005) and is intimately tied to leadership and decision processes (Tatum et al., 2003). That a leader is actually fair is insufficient. Employees must perceive that fairness with regards to outcomes and processes actually exists (Greenberg, 1990). Perceptions of fair outcomes lead to organizational commitment (Lind & Tyler, 1988) and satisfaction at the individual level (De Cremer, 2007).

Organizational justice is generally considered to encompass three different components: distributive justice, procedural justice, and interactional (interpersonal) justice (Fernandes & Awamleh, 2006; Mayer et al., 2007). Distributive justice in a group concerns what is just or right with respect to the allocation of resources among members. Hence, the basis of distributive justice judgments is resource motives while the basis of procedural justice judgments includes both resource and relational motives (Tyler, 1994). In this study, we are mainly interested in the leadership styles (e.g. transformational vs. directive) that mostly concern leader-follower dynamics. Compared with the other two forms of justice, distributive justice is not as directly related to such leadership styles because it involves few relational motives. Therefore, this article focuses mainly on procedural justice and interactional (interpersonal) justice.

Procedural justice refers to the perceived fairness of the methods used to make organizational decisions (Bauer, Truxillo, Sanchez, Craig, Ferrara, & Campion, 2001; Cobb, 1993; Folger & Konovsky, 1989; Tepper, Duffy, Henle, & Lambert, 2006). In procedural justice, employees are concerned about whether the decision process is fair and the process used to determine the outcome is just (Fernandes & Awamleh, 2006). Individuals experience procedural injustice when they are denied voice and decision control (Tepper et al., 2006), producing resentment (Greenberg, 1993), and feelings that they are not held in high esteem by their organization (Tyler, 1994), or valued as group members (Folger & Kass, 2000). Bies & Moag (1986) defined interactional justice as the interpersonal treatment people receive when procedures are enacted (Colquitt, 2001). Interactional justice is concerned with how information is communicated and whether individuals affected by a decision are treated with respect and dignity (Fernandes & Awamleh, 2006). When employees feel unfairly treated, they respond both affectively (e.g., low commitment) and behaviorally (e.g., decrease in helping behavior) (Latham & Pinder, 2005).

Leadership Credibility

Leadership credibility deals with perceived believability toward the supervisor as someone that the subordinates can trust (Gabris & Ihrke, 1996). A credible leader must be seen as fair, well-informed and worthy of belief (Stoner, 1989). Credibility is very important because it nurtures collaborative and cooperative relationships (Gabris & Ihrke, 1996). Kouzes & Posner (2000) described credibility as the foundation of leadership and suggested that employees want their leaders to be honest, inspiring, competent, and forward looking.

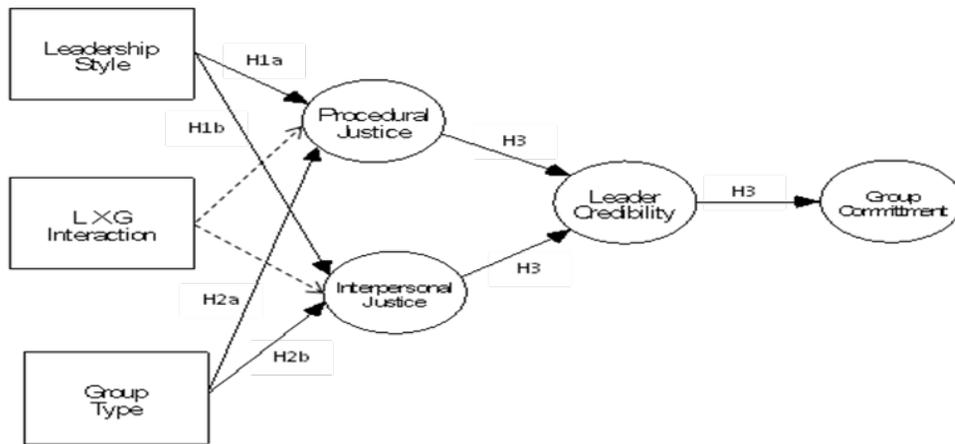
Group Commitment

Commitment engenders a sense of energy and enthusiasm among employees, and over time, their satisfaction becomes tied to the accomplishment of group goals (House & Podsakoff, 1994). Leadership is a relationship between those who aspire to lead and those who choose to follow, and the quality of this relationship strongly influences commitment (Kouzes & Posner, 2000). Commitment requires gaining trust and involvement so that employees will have greater ownership for the desired outcome and want to make it happen (Rodenbough & Fletcher, 2006). If members see leadership as legitimate, they should remain more committed to the leader, more attached to the team and willing to put forth more beneficial effort (Colquitt, Noe & Jackson, 2002).

RESEARCH MODEL

Recent studies suggested that leadership and organizational justice are closely connected (Colquitt & Greenburg, 2003; Mayer et al., 2007; Tatum et al., 2003). This study intends to investigate how different leadership styles in different group settings may influence team members' justice perceptions as well as their perception of leader credibility and commitment to the group endeavor. The research model in Figure 1 suggests that leadership style, group type, and their interaction term affect perceptions of procedural and interpersonal justice. Furthermore, perceptions of procedural and interpersonal justice are posited to influence group commitment through the mediation of leadership credibility.

Figure 1: Research Model



The effectiveness of directive and transformational leadership styles varies significantly in different team and task settings (Burke, et al., 2006). Employees of a business organization typically have the time and opportunities to acquire enough experiences and skills to handle routine tasks. If the business operates on a team-based structure, transformational leadership style should be a better choice than directive leadership style in the long run because researchers have found that the former is likely to outperform the latter when work environment is relatively stable and team members are quite experienced (Keegan & Hartog, 2004). This is because transformational leadership aims at employee development and attainment of self-actualization through mutual trust and confidence between the leader and followers (Burke et al., 2006), and is very effective in enhancing satisfaction and organizational commitment among employees (Judge & Piccolo, 2004; Keegan & Hartog, 2004). In a study by Burke et al. (2006), relations-oriented behaviors explained approximately double the variance in team productivity as compared to task-focused behaviors. Mature employees who have sufficient experiences with the tasks they typically handle are likely to have a more favorable attitude toward a relations-oriented leader than one who is task-oriented (Bass, 1990; Kahai et al, 1997; Stoker, 2008). As such, the following research hypothesis is proposed:

- H1a:** Different leadership styles (Directive vs. Transformational) lead to different levels of perceived procedural justice by group members.
- H1b:** Different leadership styles (Directive vs. Transformational) lead to different levels of perceived interpersonal justice by group members.

The prevailing view that people will cooperate when a cross-cultural team is formed (Dougherty & Handy, 1996)

has made it a popular choice to address organizational initiatives (Keller, 2001; George & Jones, 1996). The potential benefits of cross-functional teams are many, including the flexible and efficient use of personnel and resources, preservation of functional expertise, improved communication and coordination among team members and functional areas, increased creativity, and team member development; however, these same conditions also create problems for the leader (Denison, Hart & Kahn, 1996; Yukl, 2006). Cross-functional teams face many potential barriers, including personality and cultural differences between functions, jargon unique to each area, differing organizational responsibilities, objectives, priorities, and reward systems (Song, Montoya-Weiss & Schmidt, 1997).

Researchers have consistently found that members of cross-functional teams often have lower cohesiveness and job satisfaction, higher turnover and increased job stressors than members of functional teams (Keller, 2001; Milliken & Martins, 1996). Many cross-functional teams are poorly implemented and lack the necessary training and support to form collaborative relations among team members, thus threatening to worsen morale, elevate cynicism and create divisiveness among the different functions, which may be exacerbated if members perceive relational inequalities between teams (Jassawalla & Sashittal, 1999; Roberson & Colquitt, 2005). Since members of the functional subunits that comprise the cross-functional team often have competing loyalties (i.e. functional area goals versus team objectives), they may be more prone to conflict, putting additional pressure on leaders to assure that conflict is resolved in a just manner and that fair procedures are in place to avoid future conflicts (Yukl, 2006). Thus, the following hypothesis is put forth:

- H2a:** Different group types (Functional vs. Cross-functional) lead to different levels of perceived procedural justice by group members.

H2b: Different group types (Functional vs. Cross-functional) lead to different levels of perceived interpersonal justice by group members.

Inherent in workgroup effectiveness are issues of fairness and trust. Reliable and just treatment of employees creates an environment of reduced risk and increased trust (Griffith & Lusch, 2000; Latham & Pinder, 2005; Lind & Tyler, 1988). When team members have faith and trust in a credible leader, they are more likely to be committed (Ganesan, 1994; Greenberg, 1990). To the extent that a team is treated fairly and group members believe the leader will advance their interests, members should feel satisfied belonging to it, be more likely to fulfill their individual role requirements (Colquitt, Noe & Jackson, 2002), and should remain attached and committed to it in the future (Roberson & Colquitt, 2005). As such, the following hypothesis was developed.

H3: Perceived procedural and interpersonal justice have positive relationships with group commitment through the mediation of leadership credibility.

METHODOLOGY

Experiment Procedure

A two-by-two factorial design was adopted to observe the effects of two leadership styles (directive and transformational) in two group types (functional and cross-functional), resulting in four treatments. Participants read the description of each treatment and then responded to the same set of questions regarding their justice perceptions, leadership credibility and group commitment. This within-subject design (also called repeated-measure design), compared with the traditional between-subject design, is more efficient, that is: it requires fewer subjects but typically has higher statistical power (Vermeulen, 2000). The main concern of the within-subject design is the carry-over effects (i.e., one treatment affects the scores in a subsequent treatment) (Garziano & Raulin, 2000). To minimize the negative effects, we randomized the sequence in which the participants received the treatments.

Subjects

A total of fifty graduate students from a southwest university in the USA voluntarily participated in this study. Thirty-eight of the students were working on their Master of Business Administration (MBA) degree, while twelve were enrolled in a doctoral business program. There were thirty male and twenty female students, and most of them had some work experiences.

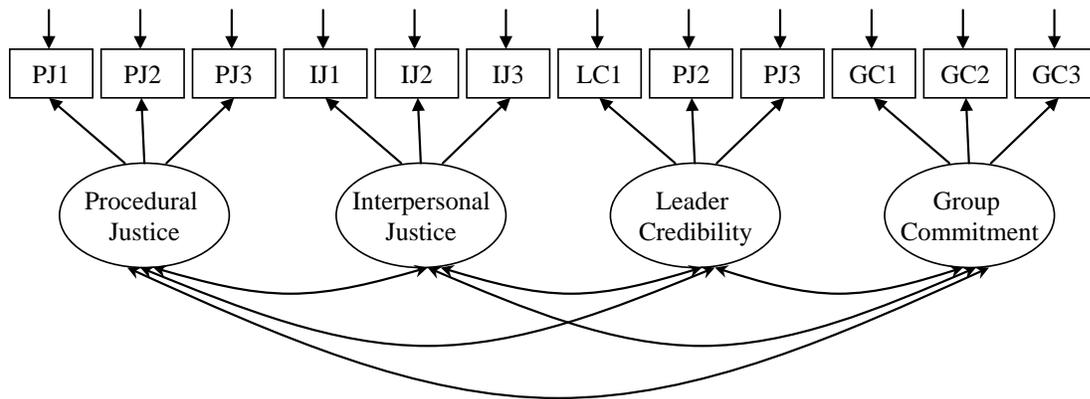
Measures

Most of the measures for this study were adapted from existing scales. The measurement of procedural justice was adapted from the scale developed and validated by Colquitt (2001) on the basis of the criteria put forth by Leventhal (1980). Interactional justice was measured with the scales developed and validated by Colquitt (2001) and Niehoff & Moorman (1993). Two measures of leadership credibility were adapted from scales developed and validated by Gabris, Golembiewski, & Ihrke (2000), and the third was developed from the conceptualization of respect-based relationship offered by Kouzes and Posner (2000). Because commitment to leader is an important part of group commitment (Reichers, 1985) and it is particularly relevant to this study, we measured group commitment mainly from the aspect of commitment to leader. Three items were developed because no appropriate measures are available.

Data Analysis

In this study, we are mainly interested in testing the hypothesized relationships between the treatment variables and the psychological constructs with structural equation modeling (SEM). Muthén's (1989, 1994) maximum-likelihood (MUL) method was used to obtain the pooled within-subject correlation matrix as the input for the structure model (Figure 1). Compared with the traditional general linear model (GLM) approach, this approach of handling repeated measures is capable of testing models that contain latent constructs and mediating relationships. The within-subject correlation matrix, obtained together with the scaled between-subject correlation matrix, is mostly free of the between-subject variance. In this way, the error variance is reduced, and model estimation is likely to be more accurate. The total sample size was 200 (i.e. 50 subjects \times 4 treatments): the between-subject sample size was 50 and the within-subject sample size (for the within-subject correlation matrix) was 150.

Figure 2: Measurement Model



Although most of the measurement scales were devised from previous research, they need to be validated first before the testing of hypothesized relationships. Confirmatory factor analysis (CFA) was applied to test the measurement model (Figure 2) for assurance that the measures adequately represented the constructs in the proposed model. The software used for structural equation modeling was AMOS 7.0.

RESULTS

The reliability of the measurement instruments was assessed using the Cronbach’s coefficient alpha (Table 1). The reliability coefficient of each measurement was calculated by taking the average of alphas across four treatments. The coefficients of all four constructs were above 0.7, indicating that the internal consistency of responses was acceptable for all scales. Then, a descriptive analysis was conducted across four experiment treatments and the means and standard deviations of all variables were also given in Table 1.

Table 1: Measurement Reliability Coefficients and Descriptive Statistics

	Reliability Coefficient α	Experiment Treatments			
		A	B	C	D
Leader Credibility	0.80	3.29 (0.86)	1.98 (0.99)	4.03 (0.58)	2.27 (0.79)
Group Commitment	0.83	2.16 (0.92)	1.92 (1.00)	4.15 (0.64)	3.49 (0.80)
Procedural Justice	0.76	2.57 (0.75)	1.89 (0.94)	4.06 (0.66)	2.32 (0.76)
Interpersonal Justice	0.89	2.18 (1.02)	1.83 (0.98)	4.21 (0.68)	2.90 (0.80)

Note: Descriptive statistics include means and standard deviations (in parentheses).

All the constructs had the highest means scores for the treatment C (Group Type: cross-functional; Leadership Style: consistently transformational across groups), and the lowest means scores for treatment B (Group Type: functional; Leadership Style: directive towards subject’s group, transformational towards other groups). It was reasonable because previous research suggested that not only do group members usually prefer transformational leadership styles (Keegan & Hartog, 2004), they also want their leaders to be reliable, trustworthy, and fair (Davies, 1980; Gabris & Ihrke, 1996; Lind & Tyler, 1988). Responses for treatment A (Group Type: functional; Leadership Style: consistently directive across groups) and treatment D (Group Type: cross-functional; Leadership Style: transformational for subject’s group, directive with other groups) were somewhere in-between. When leadership behavior was consistent, subjects perceived the leader as

more credible (treatment A); when leadership behaviors were transformational, subjects were more likely to be committed to the group (treatment D). Thus, the responses of subjects exhibits the patterns as expected, indicating that the manipulations of leader style and group type were valid.

To assess construct validity, the measurement model (Figure2) was fit to the data and the fit indices and relevant parameter estimates were reported in Table 2. Multiple fit indices suggested that the model fit was acceptable: the ratio between the chi-square statistic and its respective degrees of freedom (χ^2/df) as a sample-based absolute fit index was less than four, the root mean square error of approximation (RMSEA) as a population-based absolute index was less than .08, and the Tucker & Lewis (1973) index (TLI) as the sample-based relative index and the comparative fit index (CFI) as the population-based relative index were both above 0.9 (c.f. Sun, 2005). In addition, the average of factor

loadings was 0.78 and the average of factor correlations was 0.85. Because the factor loadings were relatively high but the factor correlations were not excessively high, the

convergent and discriminant aspects of measurement validity were supported (further evidence is that the modification indices did not suggest any cross-loadings).

Table 2: Standardized Estimates for the Measurement Model and Fit Indices

Factor Loadings	Estimate	Factor Correlations	Estimate
PJ -> PJ1	0.672	PJ <-> IJ	0.791
PJ -> PJ2	0.737	PJ <-> LC	0.795
PJ -> PJ3	0.785	PJ <-> GC	0.933
IJ -> IJ1	0.908	IJ <-> LC	0.778
IJ -> IJ2	0.896	IJ <-> GC	0.890
IJ -> IJ3	0.862	LC <-> GC	0.908
LC -> LC1	0.675		
LC -> LC2	0.811		
LC -> LC3	0.881	<u>Fit Indices</u>	
GC -> GC1	0.812	χ^2/df	2.157
GC -> GC2	0.698	RMSEA	0.076
GC -> GC3	0.575	CFI	0.929
		TLI	0.902

Note: All estimates were significant at 0.001 level. PJ – Procedural Justice; IJ – Interpersonal Justice; LC – Leadership Credibility; GC – Group Commitment.

With the confidence in measurement validity, the next step was to test the relationships specified in the structure model. The regression weights, estimated standard error and p-value are provided in Table 3. The first hypotheses (H1a & H1b) posited that leadership style influenced perceptions of procedural and interpersonal justice. The result indicated that the dummy variable Leadership Style (0: directive; 1: transformational) had significant and positive linear

relationships with both procedural justice and interpersonal justice. Specifically, our results indicated that directive leadership style weakens group member's perceptions of procedural and interpersonal justice, whereas transformational leadership style enhances group member perceptions of procedural and interpersonal justice, supporting hypotheses H1a and H1b.

Table 3: Structural Path Estimates

Structural Path	Estimates	P-Value	Hypotheses Supported?
<u>Hypothesis 1</u>			
H1a: Leadership Style -> Procedural Justice	0.483 (0.175)	0.006	Yes
H1b: Leadership Style -> Interpersonal Justice	1.378 (0.184)	<0.001	Yes
<u>Hypothesis 2</u>			
H2a: Group Type -> Procedural Justice	-0.766 (0.173)	<0.001	Yes
H2b: Group Type -> Interpersonal Justice	0.000 (0.173)	0.999	No
<u>Hypothesis 3</u>			
Indirect Paths:			
Procedural Justice -> Leader Credibility	0.593 (0.089)	<0.001	Yes
Interpersonal Justice-> Leader Credibility	0.281 (0.048)	<0.001	Yes
Leader Credibility -> Group Commitment	1.129 (0.529)	0.033	Yes
Direct Paths:			
Procedural Justice -> Group Commitment	-0.357 (0.335)	0.287	No
Interpersonal Justice -> Group Commitment	0.284 (0.156)	0.069	No
<u>Interaction Effects</u>			
LxG Interaction -> Procedural Justice	0.008 (0.048)	0.867	No
LxG Interaction -> Interpersonal Justice	0.092 (0.051)	0.07	No

The second hypotheses (H2a & H2b) suggested that group type influences group member's perceptions of functional) had a significant and negative linear relationship with Procedural Justice but an insignificant linear relationship with Interpersonal Justice. Thus, support for Hypothesis 2a was found, while H2b was not supported. We also tested the interaction term between Leadership Style and Group Type but found no significant effect on either Procedural Justice or Interpersonal Justice.

The third hypothesis posited that perceived procedural and interpersonal justice have a positive relationship with group commitment through the mediation of leadership credibility. Both direct paths from Procedural Justice and Interpersonal Justice to Group Commitment were insignificant, but all the indirect paths between them through Leadership Credibility were significant and positive. This result provided supporting evidence for Hypothesis 3.

CONCLUSION AND IMPLICATIONS

This study tested whether perceptions of procedural and interpersonal justice were affected by contrasting leadership styles, group type, and their interaction. The results offer evidence that leadership style does impact the perceptions of procedural and interpersonal justice. Specifically, directive leadership styles, where the prototypical leader engages in highly directive and occasionally dictatorial leadership (Schriesheim, House, & Kerr, 1976), weakened members' perceptions of procedural and interpersonal justice. Contrastingly, transformational leadership styles, where the relationship between leader and follower is based more on trust and commitment (Jung & Avolio, 1999), enhanced justice perceptions.

Similarly, the results provided evidence that group type impacts perceptions of procedural, but not interpersonal, justice. The results also provided evidence that perceptions of procedural justice are weakened in cross-functional teams. This finding is not surprising given that leaders may face difficulties due to the same circumstances that lead to potential advantages for cross-functional teams (Ford & Randolph, 1992). The functional diversity of the members creates communication barriers; each function usually has its own way of doing things; functional subunits often have different objectives, time orientation, and priorities; and member loyalty is often to the functional subunit, not the team objectives (Yukl, 2006). These conditions highlight the importance of ensuring that decisions are viewed as procedurally just. The results of this study, for both procedural and interpersonal justice, are consistent with Roberson & Colquitt (2005) who suggest that procedural justice should be the strongest input to the emergence of shared team justice because it is based on formal practices and organizational representatives common to all team members; whereas interpersonal justice should have somewhat weaker effects given that it originates in

procedural and interpersonal justice. The result indicated that the dummy variable Group Type (0: functional; 1: cross-interpersonal exchanges with organizational representatives which may vary considerably across team members.

Another interesting finding was that the mediated relationship between justice perceptions and group commitment was more salient than the direct relationship. Leadership credibility was a full mediator between procedural justice and group commitment, as well as between interpersonal justice and group commitment because all the indirect paths involved were significant but none of the direct paths were. From a theoretical standpoint, justice perceptions are antecedents of leader credibility that leads to group commitment. In other words, team members who perceive that they are treated in a fair and just manner are more likely to put trust in their leader, and the degree of trust translates into the amount and duration of effort that they put forth. These findings may lend credence to Kouzes and Posner's (2000) assertion that credibility is the foundation of leadership.

Limitations

There are several limitations to this study. First, the experiment treatments are based on hypothetical scenarios derived from a sample of graduate students. While this approach afforded control over the independent variables—leadership style and group type, it raises questions of generalizability. From their own work experiences in organizations, the authors tried their best to make the scenarios as realistic as possible but they were still fictitious. Additionally, the selection of graduate students to survey was deliberate because the majority of the students in this sample were either currently employed or had prior work experience. Future research would benefit from collecting field data in actual work environment. At this stage, only two distinct leadership styles (direct and transformational) were examined but they are by no means the complete set. Future research should consider additional leadership styles (e.g. transactional and empowering) and their impact on organizational justice perceptions. Finally, a direct linear relationship between leadership styles and justice perceptions is assumed. The relationship may be more complex, depending on other variables, for example, follower characteristics (e.g. experience, age, gender). Future studies may need to include these additional variables.

Theoretical and Practical Implications

Despite its limitations, this study may provide some important implications for researchers and practitioners. Theoretically, it fills a gap in leadership research by assessing the impact of leadership style and group type on members' perceptions of procedural and interpersonal justice, and subsequent effects on leadership credibility and

group commitment. Such an understanding provides an insight into the complex interrelationship between leaders marginally affected group commitment intentions (i.e. p -value > 0.05). However, when leadership credibility was introduced in the model, it became a full mediator between procedural and interpersonal justice perceptions and group commitment intentions. Though previous research has emphasized the importance of leadership credibility, few have investigated the specific mechanism through which it facilitates commitment to leaders and consequently, group functioning. This study confirms the importance of leadership credibility and provides clues regarding how it plays the role in the behavior of group members by connecting their leadership-related perceptions and intentions. The result suggests that leadership credibility is a meaningful construct worthy of future research.

This study has several important practical implications as well. First, an understanding of group perceptions arising from contrasting leadership styles may lead to a greater ability for organizational leaders to successfully enhance the effectiveness of the groups under their command. If leaders wish to maximize the performance of their teams after most members become relatively mature, they may need to adapt a transformational leadership style, since it appears to suit these group contexts well (Keegan & Hartog, 2004), having a positive impact on team effectiveness (Sosik, Avolio, & Kahai, 1997).

Leaders attempting to instill a vision, encourage change, or promote group cohesiveness must be positively influential; and the effect of their influence may be directly related to the amount of credibility attributed to them by their followers. Thus, leaders who recognize the importance of building personal relationships (e.g. trust, openness, loyalty, commitment) with their followers may also be building their own credibility in the eyes of their followers.

Finally, the results of this study also suggest that organizations whose team structures are relatively stable may wish to develop leadership training aimed at increasing the transformational skills of their leaders. Organizations whose leaders predominantly employ directive leadership styles in the long run may be creating negative justice perceptions, losing their credibility, and ultimately may be directly contributing to ineffective work teams.

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APPENDIX A

WRITTEN INSTRUCTIONS: The following four scenarios describe a work/group environment to which you belong. Please use the rating scale below to describe the extent to which each statement describes *your* feelings as they pertain to each specific scenario. Your responses will be kept in absolute confidence. Please read each scenario carefully, and then circle the number that corresponds to your reply.

VERBAL INSTRUCTIONS: In each scenario, assume that you are an employee who has been working in a company for some time and know your job pretty well.

Scenario A: As a member of a Functional Team comprised of members with specialized jobs and all a part of the same basic function/department for a manufacturing facility, you have been approached by the organizational leader and given a set of goals and objectives to accomplish. The leader has given your team specific guidance, coordinated the work for your team, and provided specific rules and procedures for your team to follow. You and your team are given minimal opportunities to voice your concerns, minimal discretion over the job, and are not allowed to participate in decision-making. You learn that the organizational leader has behaved in the same way with the other functional/departmental teams.

Scenario B: As a member of a Functional Team comprised of members with specialized jobs and all a part of the same basic function/department for a manufacturing facility, you have been approached by the organizational leader and given a set of goals and objectives to accomplish. The leader has given your team specific guidance, coordinated the work for your team, and provided specific rules and procedures for your team to follow. You and your team are given minimal opportunities to voice your concerns, minimal discretion over the job, and are not allowed to participate in decision-making. You learn that the organizational leader has also approached another functional team. The leader communicates high expectations and confidence in this other team, helping them see the importance of transcending (rise above) their own self-interests for a higher collective purpose, mission, or vision. Towards this other functional team, the leader attempts to nurture relationships, building trust and encouraging the team members to be more involved in the decision-making.

Scenario C: You are a member of a Cross-Functional Team comprised of members from a combination of functional subunits (e.g. quality, production, sales, and maintenance) working together on projects that require joint problem-solving skills. The leader communicates high expectations and confidence in your team, helping team members see the importance of transcending (rise above) their own self-interests for a higher collective purpose, mission, or vision. The leader attempts to nurture relationships, building trust and encouraging your team members to be more involved in the decision-making. Your team members have some job discretion and are encouraged to voice concerns. You learn that the organizational leader behaves in a similar fashion with all other cross-functional teams in the organization.

Scenario D: You are a member of a Cross-Functional Team which is comprised of members from a combination of functional subunits (e.g. quality, production, sales, and maintenance) working together on projects that require joint problem-solving skills. The leader communicates high expectations and confidence in your team, helping team members see the importance of transcending (rise above) their own self-interests for a higher collective purpose, mission, or vision. The leader attempts to nurture relationships, building trust and encouraging your team members to be more involved in the decision-making. Your team members have some job discretion and are encouraged to voice concerns. You learn that the organizational leader has approached Cross-functional Team-B and given that team a set of goals and objectives to accomplish. The leader has given Team-B specific guidance, coordinated the work for them, and provided specific rules and procedures for Team-B to follow. Those team members are given minimal opportunities to voice concerns, minimal discretion over their jobs, and are not allowed to participate in decision-making.

APPENDIX B*Measurement Items*

	Measure Item	Item Source
<i>Procedural Justice</i>		
1	Do you feel that the leader's behavior toward your group has been applied consistently with that of the other groups?	Leventhal (1980); Colquitt (2001)
2	Do you feel that the leader's behavior towards your group is free of bias?	Leventhal (1980); Colquitt (2001)
3	Do you feel that the leader's behavior towards your group is ethical?	Leventhal (1980); Colquitt (2001)
<i>Interactional (Interpersonal) Justice</i>		
1	Do you feel that the leader is sensitive to the needs of the group?	Niehoff & Moorman (1993)
2	Do you feel that the leader has treated your group with respect?	Colquitt (2001); Niehoff & Moorman (1993)
3	Do you feel that the leader values your group?	Niehoff & Moorman (1993)
<i>Leadership Credibility</i>		
1	Do you think that the leader is trustworthy?	Gabris et al. (2000)
2	Do you think that the leader shares the same vision and values with your group and the other?	Gabris et al. (2000)
3	Do you think that the leader's behavior is respectable?	Kouzes & Posner (2000)
<i>Group Commitment</i>		
1	Are you likely to commit to the group?	
2	Are you likely to commit to the leader?	
3	Do you aspire to emulate the leader's behavior?	

Note: Scales for group commitment were developed by the authors for this study because no measures that are appropriate in the context of this study are available.

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