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Running head: Mediating role of exchange process in explaining leadership-OCB relationship

The mediating influence of social and economic exchange climates in predicting the effects of  
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#### Abstract:

The main objective of this study is to propose and test a model at the collective level linking probably one of most neglected conceptualization of leadership --IS and consideration-- (Judge et al., 2004) and unit-level OCB. We also evaluate the potential mediating influence of social and economic exchange processes, represented by distributive and procedural justice, economic exchange, perceived organizational support, and organizational affective and continuance commitment. We used a sample of 204 business units of an international Canadian retailer. Whereas we supported the proposition that social and economic exchange relationships are independent at the aggregate level, our results revealed that economic exchanges did not appear to be a relevant framework for understanding attitudes and behaviors in the workplace. Our results show that consideration is the most appropriate leadership dimension for creating a social exchange climate and for promoting unit-level organizational citizenship behaviors.

## The mediating influence of social and economic exchange climates in predicting the effects of leadership and justice on commitment and unit-level OCB

Research on organizational citizenship behaviors (OCB) and related constructs at the individual level has flourished since the early studies of Bateman and Organ (1983) and Smith, Organ, and Near (1983). Organ (1997) redefined OCB as contextual performance (Borman & Motowildo, 1993): behaviors that enhance and maintain the social and psychological environment supporting task performance. According to Organ (1988), “most OCB actions, taken singly, would not make a dent in the overall performance of the organization ... any single occurrence of it usually is modest or trivial” (p. 8). For Organ (1988), the real competitive advantage of OCB is at the unit level rather than at the individual level.

However, there are very few studies on antecedents of OCB at the unit level. This is surprising considering the increasing evidence that unit-level OCBs influence several indicators of unit effectiveness such as productivity, customer service quality and profitability (Podsakoff, Blume, Whiting & Podsakoff, 2009). Most research on predictors of OCB has been conducted at the individual level. Social exchange was probably the most common theoretical framework used by scholars (e.g., Settoon, Bennett & Liden, 1996; Shore, Tetrick, Lynch & Barkdale, 2006;). Building on Blau’s (1964) seminal work, many scholars have argued that employees form relationships at work and that the nature and quality of such relationships have a major influence on individual and group performance (e.g. Rupp & Cropanzano, 2002; Masterson, Lewis, Goldman & Taylor, 2000; Settoon et al., 1996; Shore et al., 2006). These relationships can be categorized into two broad categories: economic and social. Shore et al. (2006) provide the first evidence that employees perceived these two distinct forms of exchanges with the employer. Economic exchange relationships are generally short term, quid pro quo arrangements and are

strongly oriented toward exchange of extrinsic rewards, whereas social exchange relationships tend to be longer term and involve less tangible or more symbolic and socio-emotional resources (Rupp & Cropanzano, 2002). According to Cropanzano and Mitchell (2005), the less particularistic and more concrete a benefit is (e.g., money, concrete rewards, incentives), the more likely it is to be exchanged in a short-term, quid pro quo fashion. In contrast, benefits that are particularistic and symbolic (related to status) are exchanged in a more open manner. The form of resources proposed by Foa and Foa (1980) parallels the distinction between social and economic exchanges. Economic exchanges are more tangible and universal, whereas socio-emotional benefits such as fairness, support and commitment may be viewed as more symbolic and particularistic. Cohen (2007) suggests that the variables that are the most representative perceptions of higher exchange or non-instrumental considerations are organizational justice, organizational support and transformational leadership. However, variables related to lower-order exchange or economic exchange are more likely to be instrumental, and include perceptions of rewards, promotions and transactional leadership. Furthermore, a growing number of researchers have suggested that organizational justice (e.g., Konovsky & Pugh, 1994) and organizational support (Eisenberger et al., 2001) facilitate the development of strong social relationships and that leaders play an important role in the development of positive social relationships in the workplace (Pillai, Schriesheim, & Williams, 1999; Rupp & Cropanzano, 2002).

Leader behaviors dictate what is important and how others should behave (Neubert et al., 2008). They are considered one of the most important factors that influence work norms, perceptions of climate, and more importantly, the perception of quality relationships between employees and organizations. More recent research has begun to focus on the various processes through which leadership effects are realized in terms of performance outcomes (e.g., Liao &

Chung, 2007; Piccolo & Colquitt, 2006). One conclusion of this research is that the effects of leadership are often indirect and mediated through constructs such as empowerment (Avolio, Zhu, Koh, & Puja, 2004), fairness and trust (Pillai et al., 1999), identification with the leader or the organization (Walumbwa, Wu, & Orwa, 2008) and organizational commitment (Avolio et al., 2004). Previous studies that have examined the role of social exchange have largely neglected the role of some important features of social exchanges. Cropanzano & Rupp (2002) have tested the mediating influence, at an individual level, of supervisory and organizational social exchanges between interpersonal fairness, procedural justice and OCB. However, they did not examine the role of economic exchanges, distributive justice, commitment or leadership. Moreover, Shore et al. (2006) have tested the mediating influence of economic and social exchanges between affective commitment, continuance commitment and OCB. They also examined the effect of perceived organizational support (POS) in this chain of relationships, although they did not study the role of leadership behaviors related to social and economic exchanges. Pillai et al. (1999) have tested the effect of transformational and transactional leadership on commitment and OCB through the mediating role of fairness (distributive and procedural justice) and trust. However they did not fully study the role of social and economic exchange relationships or the role of other forms of commitment. More importantly, all this research has been conducted at the individual level. Consequently, these results may not necessarily be observed at the collective level.

Recently, interest has grown in examining various types of climates related to social exchange, such as leadership climate (e.g., Ehrhart, 2004; Chen et al., 2007, Liao & Chuang, 2007; Schaubroeck, Lam, & Chan, 2007; Koene, Vogelaar, & Soeters, 2002; Chen & Bliese, 2002; Herold, Fedor, Caldwell, & Liu, 2008; Richardson & Vandenberg, 2005; Mayer, Nishii, Schneider, & Goldstein, 2007), fairness climate (Colquitt, Noe, & Jackson, 2002; Mossholder,

Bennett, & Martin, 1998; Naumann & Bennett, 2000; Robertson, 2003; Liao & Rupp, 2003; Ehrhart, 2004; Mayer et al., 2007), and unit-level OCB (e.g., Richardson & Vandenberg, 2005). Nonetheless, to our knowledge, other important social exchange constructs, such as POS and organizational commitment (affective and continuance), have rarely been investigated at the collective level. In addition, Judge et al. (2004) contend that very few studies have evaluated the influence of consideration and structure leadership behaviors at the group or unit level. Judge et al. (2004) stated that “both consideration and initiating structure have important main effects on numerous criteria that most would argue are fundamental indicators of effective leadership” (p.44). No extant research has proposed or tested an integrative framework at the collective level that integrates the effect of leader behaviors on unit-level OCB via mediating mechanisms.

We thus propose a model in which leader behaviors (initiating structure and consideration) are linked to unit-level OCB via the mediating processes of justice (procedural and distributive), social and economic exchange, and commitment (affective and continuance). This theoretical model is presented in Figure 1.

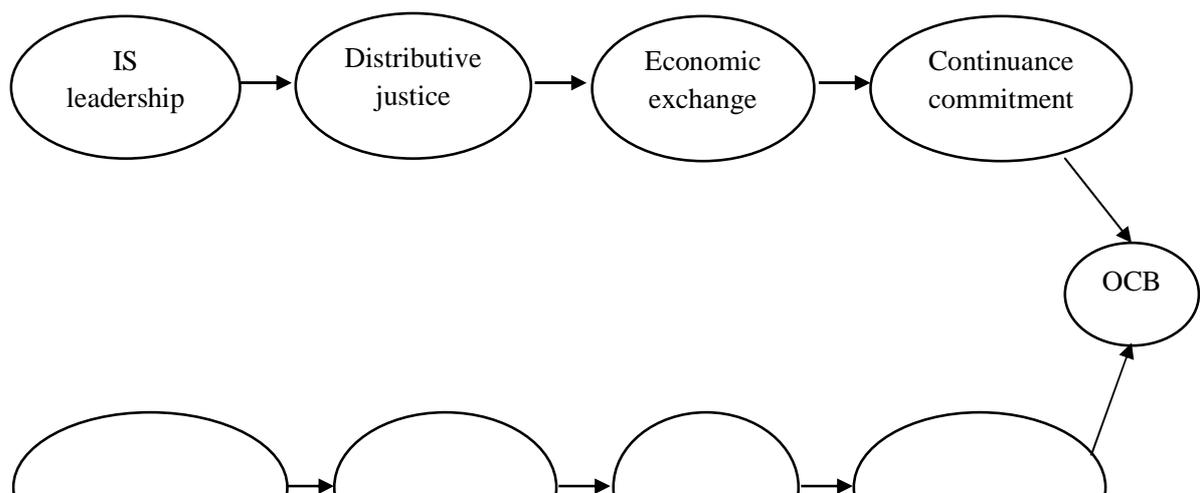


Figure 1. Theoretical model.

### Organizational climate, social exchanges and leadership

According to James et al. (2008), a psychological climate refers to the meaning that people impute to the equity of treatment related to their job, co-workers, leaders and relationship with the organization. Usually, the study of psychological climate considers variables at the individual level. However, when psychological climate perceptions are aggregated to the group or organizational level, these shared perceptions form a higher construct or an organizational climate (Baltes, Zbdanova, & Parker, 2009). A psychological climate is a property of the individual. Consequently, the appropriate level of analysis is the individual. On the other hand, the collective or organizational climate is a group-level construct that must be measured by aggregating psychological climate perceptions (Parker et al., 2003). In this sense, a lack of shared perceptions at the group level indicates that a group-level climate does not exist (James et al., 2008).

Several theories provide a foundation for explaining the emergence of unit-level variables (see Liao & Rupp, 2005). According to the social information processing theory (Salancik & Pfeffer, 1978), individuals use information gathered from others in their direct social environment to form judgments about organizational practices, values and norms. Given that

members of the same social context are exposed to the same policies, leaders and other social and economic stimuli, they possess the same information. Thus, they might form common perceptions regarding these perceived or evaluated stimuli. Research on socialization has shown that co-workers are key agents in the socialization process and that new employees learn, via interactions with existing members (e.g., Trice & Beyer, 1993), the how leaders behave, treat, and support them, how their team members evaluate their relationship with the organization and what the performance norms are in the group to which they belong.

Emotional contagion theory infers a subconscious process by which individuals a) mimic the facial expression, vocal expression and posture of those around them and b) catch others' emotions as consequences of these expressions or postures (Walter & Bruch, 2008). Thus, work-group members may become more affectively similar by automatically imitating each others' affective expression. The attraction-selection-attrition perspective (Schneider, 1975) states that individuals with similar characteristics are attracted to, selected into and retained by the same group. Over time, a work group will have similar or homogeneous perceptions about specific stimuli. This argument has received support by Colquitt et al., (2002), who find that diversity in groups is negatively related to the strength of climate: the greater the diversity, the higher the dispersion of procedural climate. Mayer et al. (2007) used the social comparison theory (Festinger, 1954) to explain the influence of justice climate on individual attitudes. The main argument is that individuals use other individuals to obtain social comparison information and frequently choose referents in their immediate social context. People in work groups infer the types of feelings, attitudes and behaviors they should experience and express to others. Individuals tend not to limit their comparisons with specific others in their group, and are more likely to base their perceptions of fairness on how the group as a whole is treated. This process of comparison affects individual perceptions and outcomes (Mayer et al., 2007; Buckingham &

Alicke, 2002). Mayer et al. (2007) provided support for these arguments by asserting that justice climate moderates the influence of individual perceptions of justice on outcomes.

According to Bowen and Ostroff (2004), employees' perceptions of their leader may be considered as a filter through which exchange efforts are recognized by employees as an important mechanism through which they perceive a climate of exchanges. Leadership climate refers to the overall pattern of leadership behaviors displayed to the entire work unit; it can be viewed as a type of ambient stimulus that is shared among unit members (Hackman, 1992, see Chen and Kanfer, 2006). According to Shamir, Zakay, Brainin and Popper (2000), "some leadership behaviors...are ambient behaviors that are either directed at the unit as a whole or at no one in particular or observable by employees across the work unit. Individual followers may perceive that these behaviors are assumed to be homogeneous with respect to an entire unit" (p.392). Whereas individual-level leadership enhances individual performance by transforming the attitudes of individuals, unit-level leadership enhances performance by transforming the climate of exchanges in teams.

Various leadership styles have been investigated in relation to OCB at the individual and collective levels, namely transformational and transactional leadership (Podsakoff, Mackenzie, Moorman, & Fetter 1990), charismatic leadership (Deluga, 1995; Richardson & Vandenberg, 2006), servant leadership (Ehrhart, 2004), and initiating structure and consideration behaviors (Schnake, Dumler, & Cochran, 1993; Schnake, Cochran, & Dumler, 1995). This study investigates the initiating structure and consideration leadership approach. Some scholars (e.g., Keller, 2006) argue that this leadership approach has been seriously neglected. Judge et al. (2004) called this approach "the forgotten one" of leadership research since 1987 and advocate a renewal of interest in this leadership style. Fundamentally derived from Ohio State University studies, two leadership behavior dimensions were isolated: consideration and initiating structure.

According to Fleishman (1953), the consideration dimension evaluates the extent to which a leader is considerate of his workers' feelings; it reflects the human relations aspect of group leadership. Bass (1990) asserts that consideration is the degree to which a leader shows concern and respect for followers, looks out for their welfare and expresses appreciation and support. He does this by expressing his appreciation for a job well done, by treating all followers as his equal, and by putting suggestions made by his followers into operation. According to Bass (1990), initiating structure (IS) is the degree to which a leader defines and organizes his role and the roles of his followers, is oriented toward goal attainment and establishes well-defined patterns and channels of communication. He does this by planning, communicating, scheduling, criticizing, and trying new ideas. Typical items of IS include "My superior decides in detail what is to be done and how it shall be done by employees" and "My superior assigns employees to particular tasks."

Two meta-analyses were performed in order to evaluate the effect of the initiating structure and consideration leadership approach. Fisher's meta-analysis (1988) found a correlation of .20 between CN and performance and .16 between IS and job performance. The meta-analysis performed by Judge, Picolo and Ilies (2004) indicates that the consideration dimension is generally most strongly related to follower satisfaction and motivation and, interestingly, to leader effectiveness. In addition, consideration and initiating structure are equally positively related to group performance ( $r = .28$  vs  $r = .30$ ). Initiating structure appears to make a leader more effective at meeting role expectations, whereas followers are expected to prefer leaders who are considerate. Schnake et al. (1993) are probably the first to have established a relationship between consideration and initiating structure behaviors and several OCB dimensions. Dale and Fox (2008) found that consideration leadership behaviors were more strongly related to organizational commitment and role stress than initiating structure. Koene,

Vogelaar and Soeters (2002) performed one of the rare business level studies on the influence of consideration and initiating structure behaviors. They observed a strong correlation between charismatic leadership and consideration dimensions ( $r = .85$ ), but a weak association between consideration and structuring dimensions of leadership ( $r = .20$ ). They also found that only consideration was related to objective performance indices (net results and controllable costs). However, the two leadership dimensions were strongly related to various climate measures, such as general communication and willingness to innovate. Contrary to the earlier study, Keller (2006) found that the initiating structure predicts subsequent subjective and objective performance and appears to be a better predictor of the speed of the market than transformational leadership.

The theoretical framework most often used by scholars to explain the influence of leadership on several outcomes is social exchange theory. Blau (1964) was among the first to differentiate social exchange from economic exchange. According to Blau (1964), social exchange refers to relationships that entail unspecified future obligations. Like economic exchange, social exchange generates an expectation of future return for contributions; however, unlike economic exchange, the exact nature of that return is unspecified. Furthermore, social exchange does not occur on a quid pro quo or calculated basis. Economic exchange is based on transactions, but social exchange relationships are based on individuals who trust that other parties to the exchange will fulfill their obligations fairly in the long term.

The expectation of long-term fairness in social exchange contrasts with the expectation of short-term fairness that typically characterizes economic exchange. Blau (1964) argued that the absence of negotiation, that is often a part of economic transactions (e.g., pay negotiation), distinguished social from economic exchange. Negotiated agreements tend to be more explicit and quid pro quo than reciprocal exchanges, and the duties and obligations exchanged are fairly

detailed and understood (Cropanzano & Mitchell, 2005; Molm, Peterson & Takahashi, 1999). According to Organ (1990), in economic exchange, the individual and the organization have an explicit agreement defining specific reciprocal obligations. These mutual obligations are explicit; they do not change unless the parties formally renegotiate the relationship. In contrast, the parties to a social exchange have an implicit agreement defining expectations of reciprocity that are not specific in nature. As the expectations are implicit, they change as the relationship matures. The results suggest that reciprocity exchange produces better work relationships than negotiation exchanges (Molm, Takahashi & Peterson, 2003; Lawler, Thye & Yoon, 2008). According to Blau (1964) and Konovsky and Pugh (1994), trust, POS and commitment represent macromotives that provide the basis for relational contracts and social exchange. Further, POS is probably the most representative quality of social exchange in the SET theory (e.g., Eisenberger, Huntington, Hutchison & Sowa, 1986). In contrast to procedural justice, distributive justice is considered the typical metric for judging the fairness of transactional contracts and economic exchange (Shore et al., 2006). The distributive norm implies that participants in the exchange give benefits with the expectation of receiving comparable benefits in return in the short term. In this case, the expression of trust is undercut because sufficient extrinsic explanations for the parties' continued participation in the relationship exist.

The mediating role of fairness between leadership and exchange relationships (social and economic)

Few studies have been devoted to the impact of leadership style on organizational fairness (Judge et al., 2004; De Cremer, 2006). According to Knippenberg, Knippenberg, De Cremer and Hogg (2004), although leader fairness was not typically studied in relation to leadership, there is

growing recognition that leader fairness is an essential element of leadership. Followers may be concerned about leader fairness because a core function of leaders is to bear responsibility for decisions that directly affect and indirectly concern followers (promotion decisions, pay increases, allocation of duties (Knippenberg et al., 2004). Studies that integrate leadership and behavior suggest that leader behaviors are direct antecedents of perceptions of justice (e.g., Lipponen, Koivisto, & Olkkonen, 2005), that the effects on justice depend on the nature of leadership (Erdogan, Liden & Kraimer, 2006; Pillai et al., 1999, Gaudet, Tremblay, & Doucet, 2009) and that justice is a mechanism by which leader effects are realized (Pillai et al., 1999; Gaudet et al., 2009).

The present study aims to evaluate the influence of leader behaviors on two important organizational justice concerns: distributive and procedural. Distributive justice is defined as “judgments of fair distribution, irrespective of whether the criterion of justice is based on needs, equality, contributions or a combination of these factors (Leventhal, 1980a, p.29). Distributive justice exists to the extent that the allocation of an outcome is consistent with the goals of a particular situation, such as maximizing productivity or improving cooperation (Deutsch, 1975). Leventhal (1980b) described the equity rule as “a single normative rule which dictates that rewards and resources be distributed in accordance with recipients’ contributions” (p.94). Deutsch (1975) described the equity rule as “proportionality between the individual’s outcome of rewards and costs and his inputs or contributions of assets and liabilities” (p.144). Procedural justice is defined as the belief that the techniques used to resolve a dispute are fair or satisfying in themselves (Walker, Lind, & Thibaut, 1979). Leventhal (1980) defined procedural justice as “the individual’s perception of the fairness of procedural components of the social system that regulate the allocative process” (p.35). Research has identified a variety of organizational outcomes that affect perceptions of distributive justice: pay, benefits, and promotions

(Cropanzano & Greenberg, 1997). Participation in decision making (Thibaut & Walker, 1975) and several procedural components such as consistency, bias suppression, accuracy of information, correctability, representativeness and ethicality (Leventhal, 1980) were proposed as procedural justice rules.

Judge et al. (2004) propose that future research should explore mediators to explain the effect of consideration and initiating structure leadership on outcomes. Among the potential mediators proposed, they recommend studying the effects of organizational justice. They speculate that leaders capable of initiating structure are likely to foster distributive justice. Such leaders define rules regarding work duties, maintain standards and determine the consequences of goal attainment. It seems likely that their followers should feel that rewards are distributed according to the equity rule.

Many theories of leadership and motivation, including the path-goal theory (House, 1971), expectation theories (Vroom, 1964) and contingent rewards leadership (CRL) (Podsakoff, Bommer, Podsakoff, & Mackenzie, 2006), focus on clarifying rules, expectations and providing rewards contingent on standards as ways to increase the motivation and commitment of employees. Leaders who provide favorable outcomes may be perceived as fairer regarding allocation of rewards. Recent research on CRL (Podsakoff et al., 2006; Tremblay, Vandenberghe & Doucet, 2010) shows that this type of leadership is associated with higher distributive justice and higher satisfaction with rewards. Schnake et al. (1993) argue that initiating structure (IS) leadership may be viewed by employees as instrumental to gaining future rewards, which may increase the perception of leader fairness. Downey, Scheridan and Slocum (1975) found that IS leadership is positively related to employees' perceptions that their performance would be rewarded with desired outcomes. Under transactional leaders, employees may be more concerned about the fairness of outcomes than the fairness of procedures because

their relationship with the leader is based on the outcomes they receive in exchange for the efforts. This was supported by Pillai et al. (1999) who found a significant relationship between transactional leadership and individual perceptions of distributive justice. The above considerations suggest that initiating structure and consideration behaviors will directly influence distributive justice and procedural justice.

Some scholars (e.g., Roch & Schanock, 2006) argued that distributive justice or economic exchange has been neglected because most researchers have concentrated on social exchange relationships. Distributive justice is the typical metric for judging the fairness of transactional contracts and economic exchanges (Konovsky & Pugh, 1994). Blau (1964) posited that each party's self-interest in continuing to receive benefits ultimately motivates the exchange of performance of benefits. Thus the reciprocity may be based on the self-interest of each party because the failure of reciprocity may halt the process that results in receiving benefits. Research on the structure or type of changes (Lawler, 2001; Molm et al., 1999) implies that successful exchange promotes a greater sense of responsibility and more positive emotions under equal rather than unequal structural power. In the case of unequal power, such as initiating structure leadership, the disadvantaged actors (employees) are less likely to experience the same emotional pleasure as the more powerful actors, especially when exchanges are negotiated. The contingent, transactional and short-term nature of economic exchange may represent a relationship wherein the employee does not feel that the employer trusts his or her competence and willingness to do well for the organization (Arnulf, Kuvass, & Dysvick, 2009). As the authors failed to distinguish between transactional and transformational behaviors, it was not possible for them to test the mediating role of economic exchange between transactional leadership and employee outcomes. However, they found that economic exchange was negatively related to work efforts and OCB. This finding was fairly consistent with Moorman &

Byrne (2005) who argue that if economic exchange is the only type of exchange relationship, employees would only perform OCB if they considered it a way to fulfill the obligations of their performance contract. The above arguments suggest that leaders with a strong IS orientation are more likely to create a favorable fairness climate in the workplace. In turn, this strong emphasis will create an environment where economic exchanges are paramount.

*Hypothesis 1:* Distributive justice will mediate the relationship between IS leadership and the employee's perceptions of economic exchanges.

To our knowledge, apart from the study by Korsgaard, Schweiger, and Sapienza (1995), the effect of consideration leadership on procedural justice and POS and the mediating role of procedural justice have not yet been investigated. Our main proposition is that consideration behaviors are more likely to enhance procedural fairness, and that a favorable procedural fairness climate will enhance the employees' perception that their organization is committed to them and wants to establish social relationships with them. There is scant evidence that leadership styles are more strongly related to procedural justice, but there is much stronger evidence that leader fairness is related to a large variety of attitudinal and behavioral outcomes. Leadership fairness has been positively related to trust in the leader, commitment, POS, cooperation and OCB (Folger & Konovsky, 1989; Wat and Schaffer, 2005; Konovsky & Pugh, 1994; Colquitt, 2001; De Cremer & van Knippenberg, 2003). Liao and Rupp (2005) provided recent evidence that leader procedural fairness and the strength of the justice climate predict commitment to and satisfaction with the leader and indirectly influence OCB. Regarding the effect of leadership styles, Pillai et al. (1999) found that transformational leadership was seen as more procedurally fair. Gaudet et al. (2009) found a similar strong relationship between transformational leadership and procedural justice. Mayer, Bardes and Piccolo (2008) found that servant leadership has a significant relationship with overall organizational justice and overall need satisfaction. Ehrhart

(2004) showed that servant leadership was positively related to justice climate. Leaders with a strong orientation towards consideration are probably more likely to involve employees in decision making and empower them. This reinforces their sense of being heard, which is an important component of procedural justice (Pillai et al. 1999).

Whereas the consideration leadership at the collective level has rarely been studied, there has been a growing interest in the fairness effect at the unit level. Mossholder, Bennett, and Martin (1998) found that aggregated perceptions of procedural justice explained variance in individuals' satisfaction beyond that explained by individual evaluations of the procedural justice climate. Naumann and Bennett (2000) observed that the procedural justice climate explain additional variance in individual-level helping behaviors beyond individual perceptions of procedural justice. Ehrhart (2004) provided evidence that fairness climate partially mediate the influence of servant leadership on unit-level OCB.

To our knowledge, the influence of procedural justice on POS as a social exchange construct at the collective level has never been studied. POS is considered by scholars to be one of most representative conceptualizations of social exchange relationships between employees and organizations (e.g., Settoon et al., 1996; Roch & Schanock, 2006; Erdogan & Enders, 2007). Eisenberger et al. (1986) defined POS as “[...] the global belief held by an employee that the organization values his/her contributions and cares about his/her well-being” (p.501). POS is also interpreted as the assurance that the organization will help employees in difficult situations (Rhoades & Eisenberger, 2002), as a demonstration of the employer's commitment to the employees (Eisenberger *et al.*, 1986), and as a sign that the employer values the contributions of its employees and cares about their well-being (Rhoades, Eisenberger, & Armeli, 2001). Nonetheless, procedural justice has often been studied and associated with POS (Fasolo, 1995; Moorman, Blakely, & Niehoff, 1998; Rhoades *et al.*, 2001; Rhoades & Eisenberger, 2002). The

use of fair procedures clearly signals that the organization cares about employees' well-being and takes measures to provide support (Lind & Tyler, 1988; Meyer & Smith, 2000; Rhoades *et al.*, 2001; Moorman *et al.*, 1998; Wayne, Shore, Bommer & Tetrick., 2002) and that the employees are valued by the organization (Moorman *et al.*, 1998). Roch & Shanock (2006), Tekleab, Takeuchi & Taylor (2005) and Rhoades *et al.* (2002) prove that procedural justice is uniquely related to POS or associated with attitudes regarding social exchanges with organizations that administer other types of justice. Masterson *et al.* (2000), Aryee and Chay (2001), and Wayne *et al.* (2002) demonstrate that procedural justice predicts POS and that POS mediates the effects of procedural justice on favorable employee outcomes such as OCB-O and organizational commitment. The relational model of procedural justice (Tyler and Blader, 2003) suggests that important inferences about the self as a member of the work organization flow from employees' procedural justice judgments. From this perspective, employees make evaluations about identities as members of their work organization based on the procedural justice that they experience. The group engagement model (Blader & Tyler, 2009) highlights three important identity-related variables that are linked to procedural justice: pride (intergroup issue of status or standing), respect (a feeling of being included and respected) and identification (thinking of oneself as a member of a group or organization). The more the authority figure shows that individuals are members of the group, the more these individuals will respond positively with OCB. Blade and Tyler (2009) recently put forth strong evidence of the role of social identity by demonstrating that this relational construct completely mediates the influence of procedural justice and economic outcomes on behavior. Thus, the evidence suggests the following hypothesis:

*Hypothesis 2(a):* Procedural justice will mediate the relationship between consideration leadership and social exchange relationship (POS).

To our knowledge, no empirical study has considered the direct influence of consideration leadership climate on POS or examined POS as a variable that mediates the relationship between consideration and affective organizational commitment (AOC). Leaders with strong consideration may provide support by expressing their appreciation when their followers do a good job, by helping followers with personal and professional problems, by backing up direct reports in their actions, and by putting suggestions made by followers into action. Studies also showed that using the transformational leadership theory may give additional insights into consideration leadership behaviors (CLB). Bass and Avolio (1993) maintain that transformational leaders are more likely to consider the needs of each of their subordinates and to act as a coach and mentor. Godshalk and Sosik (2000) observed a positive and significant link between transformational leadership and the perception of psychosocial support among his/her subordinates. Wayne et al. (2002) found that recognition from managers generally gives employees a strong sense of being supported. Rhoades and Eisenberger (2002) conclude that rewards and marks of recognition add to this feeling because they express a positive evaluation of employees' contributions. Using this framework, Schaubroeck et al. (2007) argue that transformational leaders are more likely to show concern for followers' needs and that such concern should promote a belief among team members that the leader will provide them with any support that they might need. They found that transformational leadership climate was significantly related to team potency, and that this potency fully mediates the leadership-team performance relationship. Hence the following hypothesis:

*Hypothesis 2(b):* Consideration leadership will be directly related to social exchange relationship (POS).

## The mediating role of exchange relationships (social and economic) between fairness and organizational commitment

It was argued in the previous section that individuals evaluate their economic exchange relationship with the organization primarily through the lens of the fairness of their economic rewards (e.g., pay, benefits and incentives), and their social exchange relationship (POS) through the quality of the procedural justice climate. Our theoretical model sustains that these two types of exchange would have differential effects on organizational commitment. Shore et al. (2006), and more recently Blader and Tyler (2009), have provided strong evidence that economic exchanges are relevant not only for the domain of justice but also for commitment and extra-role performance. Roch and Shanock (2006) found that distributive justice was not significantly associated with perceived exchange with the organization (POS), nor with exchange with superiors (LMX), but solely with pay satisfaction, providing an interesting proof of association between distributive justice and economic exchange. As distributive justice emphasizes outcomes and this emphasis is more likely to generate an economic relationship, the logic would be that economic exchange should be directly associated with attitudes focusing on instrumental and continuance exchange or commitment with the employer. Continuance organizational commitment (COC) is defined as “the tendency to engage in a consistent line of activity based on individual recognition of the costs associated with discontinuing activity” (Allen and Meyer, 1990, p.3). Therefore, employees whose primary link to the organization is based on COC stay because they need to. Employees show a strong COC because they believe that the loss of the economic benefits associated with their present relationship with their employer would be costly. Inconsistent findings were observed for the relationship between economic exchange and COC. Although Shore et al. (2006) found a positive relationship, it was not significant in the regression

models. However, Cardona, Lawrence and Bentler (2004) show that economic exchange increase individual economic attachment to the organization. Cohen and Keren (2008) fail to find a significant relationship between distributive justice and COC. In contrast, the meta-analysis performed by Meyer, Stanley, Herscovitch and Topolnytsky (2002) demonstrated that COC was related to various economic features. These inconsistent findings suggest the need of further research on determinants of COC.

*Hypothesis 3:* Employee's perceptions of economic exchange will mediate the relationship between distributive justice and COC.

The strong relationship between procedural justice and POS was underlined above (Moorman et al., 1998; Rhoades & Eisenberger, 2002; Tremblay et al., 2010.; Masterson et al., 2000). High levels of procedural justice communicate to employees that the organization supports them and that they have a social relationship with their employer (Rupp & Cropanzano, 2002; Lavelle et al., 2008). The effect of POS on AOC has since received consistent support (Shore & Wayne, 1999; Rhoades et al. 2001; Muse & Stamper, 2007; Rhoades & Eisenberger, 2002; Tremblay et al., 2010). In addition, evidence was provided that POS is the cause of AOC (Rhoades et al. 2001). AOC corresponds to an employee's personal attachment and identification with the organization's goals and values (Meyer, Allen & Smith, 1993). Employees with strong AOC continue their employment with an organization because they want to. Whereas POS is presented as a sign of commitment of the organization toward employees, AOC is considered as a sign of employee engagement to the organization. Research suggests that employees are willing to exchange their commitment for employer support (Cropanzano & Mitchell, 2005; Eisenberger et al., 1986). Moreover, Shore et al. (2006) report that POS is strongly positively related to social exchange and affective commitment and negatively related to economic exchange perceptions.

There is also evidence that procedural justice is positively and directly associated with AOC at the individual level (e.g., Konovsky & Cropanzano, 1999; Moorman, 1991; Pillai et al. 1999; Lavelle et al., 2008) and at the group level (Liao & Rup, 2005; Simons & Roberson, 2003; Ehrhart, 2004). The use of fair procedures and systems may enhance employee AOC because fairness suggests that employees are respected members of the organization (Lind & Tyler, 1988). The group-value model and the relational membership model (Lind & Tyler, 1988) both suggest that fair procedures enhance the feeling of inclusion in the group and of being treated as a full member of the organization, which, in turn, reinforces the emotional bond to the group. According to the affect theory of social exchange (Lawler, 2001), when an exchange occurs successfully in the form of frequent actions of support from the organization, actors experience a positive emotion (pleasure, pride, gratitude). On the other hand, when exchanges do not occur successfully, they experience negative emotions (anger). According to this theory, contingent on the exchange structure (e.g. negotiation vs. reciprocity), the emotions from the exchange (e.g., POS) influence how actors perceive their shared activities, their relationships and their group affiliation. The emotions experienced in exchange should make the group context more salient as the target for cognition or feelings. Specific emotions, whether positive (gratitude) or negative (anger), result from an effort of attribution attempting to interpret the cause or the source of these emotions. If the positive emotions are attributed to a specific social unit (e.g., leader, work group, organization), employees should develop a stronger affective attachment to the target of relations. In addition, the affect theory of social exchange posits that attribution of positive acts to another person produces gratitude if the act is perceived as “intentional” and if the cause of the acts or exchange (such as POS) is stable and not a result of chance or idiosyncrasies. When these two features of positive emotions are present, the affective attachment to the target responsible for these emotions will be greater. Thus, we propose the following mediation hypothesis:

*Hypothesis 4(a):* Employees' social exchange relationships (POS) will mediate the relationship between procedural justice and AOC.

The strong evidence that procedural justice is positively related to AOC at the individual level (e.g., Konovsky & Cropanzano, 1999; Moorman, 1991; Pillai et al. 1999; Lavelle et al., 2008) and at the group level (Liao & Rup, 2005; Simons & Robertson, 2003; Ehrhart, 2004) implies that POS only partially mediates the influence of procedural justice on AOC .

*Hypothesis 4(b):* Procedural justice will be directly related to AOC.

The mediating role of organizational commitment between exchange relationships (social and economic) and unit-level OCB

The literature showed a consistent negative relationship between COC and OCB at the individual level (Meyer et al., 2002). According to Molm et al. (1999) and Lawler (2001) successful exchanges in unequal power should elicit less positive emotions (gratitude and attachment) than those under an equal power structure. This asymmetry of power is a function of the degree of dependence, which varies with the value of the exchange with the other and with the availability of alternatives. Larger power imbalances lead to low levels of commitment, while balanced relations promote commitment behaviors (Molm, Takahashi & Peterson, 2000). The dependence theory (Emerson, 1992) suggests that the most powerful actors will be less likely to cooperate because they are not forced to stay in the exchange relationship. In addition, cooperation theory states that anticipating future relationships is a necessary condition for stabilizing social exchange relationships (Lawler & Yoon, 1996). Within this line of inquiry,

Hui, Law, and Chen (1999) found a negative relationship between perceived job mobility and OCB. Thau, Bennett, Stahberg, and Werner (2004) maintain that employees who have access to alternative exchange partners in the job market will experience less restriction in social exchanges and feel less motivation to cooperate. Their results show that employees who cannot easily find a new job exhibit higher OCB than employees who can. In some instances, their findings contradicted those of Bentein, Vandenberghe, and Dulac (2004) who found that high alternatives (easy access) were positively related to OCB. However, Thau et al. (2004) observe that OCB is lower when job alternatives are attractive and job access is easy (strong power), or when alternative jobs and access are both in short supply (low power). In intermediary power situations, for example, in the case of low alternatives but easy access, the level of OCB is higher. Some scholars (e.g., Podsakoff et al., 2006) have consistently argued that OCB is not explicitly a reward. Thus, economic attachment should not produce a strong propensity to perform OCB behaviors. This argument found strong support in the literature. Mayer et al. (2002), and more recently Paré and Tremblay (2007) found no relationship between COC and OCB and Shore and Wayne (1993) report a negative relationship. Cardona et al. (2004) observe a positive significant relationship in one sample and no significant relationship, in their second sample, between COC and OCB. Cohen and Keren (2008) observed a significant negative relationship between COC and helping behaviors. Shore et al. (2006) posit a low negative correlation ( $r = -.15$ ) between economic exchange and OCB and a non-significant correlation with COC. A plausible explanation for these findings is that employees who exhibit a high level of COC are more likely to develop a transactional contract relationship. According to the psychological contract perspective (Rousseau, 1995), employees who perceive their relationship with their employer as primarily instrumental are more likely to restrict their professional obligations to those activities for which they are paid. Hence the following hypothesis:

*Hypothesis 5:* COC will mediate the relationship between employees' perceptions of economic exchange and unit-level OCB.

The last mediating relationship that we propose concerns the mediating mechanism of AOC between POS and OCB. POS has been associated with extra-role behaviors such as helping others and coming up with creative suggestions (Eisenberger et al., 1990; Lynch, Eisenberger & Armeli, 1999; Moorman et al., 1998, Shore & Wayne, 1993; Wayne et al., 1997; Kaufman, Stamper & Tesluk, 2001; Masterson et al. 2000; Wayne et al., 2002; Vanperen, Van den Berg & Willering, 1999). The meta-analysis performed by Rhoades and Eisenberger (2002) demonstrates a moderate association between POS and OCB-I ( $r = .22$ ). Accordingly, POS can be perceived as favors or discretionary actions on the part of employers which awaken feelings of indebtedness in their recipients. When and how this debt is to be repaid is generally unspecified (Wayne et al., 1997). Nonetheless, employees are motivated to repay the employer's favorable treatment and to exhibit behaviors commensurate with the support obtained (Wayne & al, 1997). When an individual or entity treats another party well, that person is obliged to reciprocate by treating the other party better. The relationship between the sense of obligation to repay a debt and extra-role behaviors was recently studied by Eisenberger et al. (2001). Adopting extra-role behaviors is thus a form of reciprocity shown to the employer. Rhoades & Eisenberger (2002) propose two other explanations for the link between POS and OCB. First, the respect, approval and caring that underlie POS are likely to satisfy several socioeconomic needs (e.g., need for esteem, consideration, inclusion in the group). Second, POS should reinforce the belief that the organization recognizes and rewards employees' efforts and performance. However, the study by Vandenberghe et al. (2007), in the context of retaining service sector employees, failed to find a significant interaction effect of POS and AOC in predicting service quality (helping

behavior). However, they conclude that POS at the unit and individual level predicts service quality.

The influence of AOC on OCB has received broad support in previous studies (Meyer et al., 2004, Rikitta, 2002; Paré & Tremblay, 2007; Organ et al., 2006). Employees who are affectively committed to the organization are more willing to give something of themselves in order to contribute to the organization's well-being (Mowday, Porter & Steers, 1982). They are also more likely to take a broader view of their work roles (Tepper and Taylor, 2003) and less sensitive to signals or constraints that could restrict their behaviors (Meyer and Herscovitch, 2001). Thus, all of the above considerations lead us to propose the following hypothesis:

*Hypothesis 6(a):* AOC will mediate the relationship between employees' perceptions of social exchange (POS) and unit-level OCB.

The meta-analysis performed by Rhoades and Eisenberger (2002) and many other studies (e.g., Kaufman, Stamper & Tesluk, 2001; Masterson et al., 2000; Wayne et al., 2002) suggest that POS may directly influence OCB, and that AOC only partially mediates the effect of POS on OCB.

*Hypothesis 6(b):* POS will have a significant direct effect on OCB

## Method

### *Sample and procedure*

The sample comes from a major international retailer based in Canada. Data were collected from superiors and direct reports. The sample consists of 917 permanent and partial status employees in 204 stores in three countries, namely, Canada, the US and the UK. A web-based survey was conducted. Invitation letters were sent by human resources representatives to the

managers and employees to enlist their collaboration. This letter included the web link for the site survey. The sample is predominantly female (78 %). In addition, 72% of the respondents are aged between 18 and 25 ( $\mu=23$  years). They have accumulated, on average, 2 years of service. A minority of respondents occupy a managerial position (16.8%). Nearly 90% of the respondents are English speaking and 10% are French speaking.

There were 204 stores with 3 or more respondents. As our study was conducted in the stores of a single retailer chain, the organization units (stores) under examination were comparable on many issues, thus reducing the influence of external factors that may influence the construct climate studied. All stores are submitted to the same human resource policies from head office (e.g., training, selection tests).

### *Measures*

All items for the three categories of variables --leadership, attitudes and OCB-- were measured using a seven-point Likert-type scale ranging from 1 (“strongly disagree”) to 7 (“strongly agree”).

*Leadership Behaviors.* We measured leadership behaviors using the original scales designed by Litwin and Stringer (1968) and described in Euwema, Wendt & Emmerik (2007). IS leadership were measured with seven items, which correspond to the directive leadership subscale. The operationalization of directive leadership is closely similar to the initiating structure measure because they both represent the same types of behaviors (task-oriented behaviors). Sample items include: “Your manager expects employees to follow his/her instructions precisely,” “Your manager supervises employees very strongly,” and “Your manager expects employees to carry out instructions immediately.” The  $\alpha$  reliability coefficient for this scale was .79. To measure consideration leadership behaviors, we also used seven items,

including: “Your manager encourages employees to talk to him/her about personal problems,” “Your manager frequently demonstrates concern for employees,” and “Your manager believes subordinates’ feelings are as important as the task at hand.” The  $\alpha$  reliability coefficient for this scale was .89.

*Organizational justice.* Procedural justice was measured using seven items from Colquitt’s (2001) procedural justice scale. Examples of items used are: “Have you been able to express your views and feeling during those procedures?” and “Have those procedures been based on accurate information?” The  $\alpha$  reliability coefficient for this scale was .88. Distributive justice was measured using four items from Price and Mueller (1986). Sample items include: “To what extent are you fairly rewarded given the amount of experience that you have?” and “To what extent are you fairly rewarded for the amount of effort that you have put forth?” The  $\alpha$  reliability coefficient for this scale was .94.

*Social and economic exchanges.* The perceived quality of social exchange was assessed using a POS measure. We used four items from Eisenberger et al.’s (1986) eight-item scale. An example of the items is: “My organization really cares about my well-being.” The  $\alpha$  reliability coefficient for this scale was .90. The economic exchange relationship was assessed using the nine-item instrument developed by Shore et al. (2006). An example of the items is: “My work with my organization is strictly an economic one – I work and they pay me.” The  $\alpha$  reliability coefficient for this scale was .85, much higher than those ( $\alpha = .68$  and  $\alpha = .78$ ) found by Shore et al. (2006).

*Organizational Commitment.* Affective and continuance organizational commitment were measured using the scale developed by Meyer and Allen (1991). We measured AOC with six items, including: “I feel like part of the family at my organization.” The  $\alpha$  reliability coefficient for this scale was .92. COC was measured using three items that represent the “sacrifice”

component of commitment or the perceived sacrifice associated with leaving (Meyer & Allen, 1991). Sample items used include: “I would not leave my company because of what I would stand to lose,” and “For me personally, the costs of leaving this company would be far greater than the benefits.” The  $\alpha$  reliability coefficient for this scale was .81.

*Organizational Citizenship Behaviors.* Consistent with other studies (e.g., Richardson & Vandenberg, 2005), we used manager ratings of unit-level OCB to reduce same-source bias. Each store manager was invited to assess the group-directed OCB of their group members. We adapted three items from the OCB scale of Williams and Anderson (1991). Sample items used are: “How often were your team members ready to lend a helping hand to those around them?” “How often did your team members willingly help others with work-related problems?” and “How often did your team help new associates even though it was not required?” The  $\alpha$  reliability coefficient for this scale was .87.

## Analyses

### *Item aggregation*

To ensure that the total of observations is significantly larger than the number of parameters, we reduced the number of scale items by applying a partial aggregation procedure to each scale that initially had more than three items. This procedure, examined in Landis, Beal, & Tesluk (2000), has been widely used by researchers in past studies (e.g., Chen, Aryee, & Lee, 2005; Mathieu & Farr, 1991). More precisely, we used the single-factor method (SFA), which entails subjecting all items of a scale to a single confirmatory factor analysis (Landis et al., 2000). Based on the factorial results, we paired the item with the highest loading with the item exhibiting the lowest loading to form a composite. Then we paired the items with the remaining highest and lowest loadings and so on until we obtained three composite items for each measurement scale.

### *Data aggregation*

Leadership, justice, commitment and exchange variables are examined in this study at the group level as shared phenomena. Following the direct consensus approach (Chan, 1998), we operationalized group-level constructs with the mean of responses at the individual level. To ensure that the aggregation was appropriate, we assessed the degree of agreement for the measures by calculating both the intra-group interrater reliability ( $r_{wg(j)}$ ) statistic (James, Demaree, & Wolf, 1984, 1993) and the intra-class correlation coefficient (ICC (1): Bartko, 1976; James, 1982). The  $r_{wg(j)}$  statistic has been the most commonly used multi-item estimate of interrater agreement (IRA) and was designed to measure IRA by comparing the observed variance in ratings of multiple judges of a single target to the variance one would expect when the judges respond randomly (LeBreton & Senter, 2008).  $r_{wg(j)}$  represents the proportional reduction in error variance, with higher scores reflecting a larger reduction in error variance and, thus, higher agreement (LeBreton, Burgess, Kaiser, Atchley, & James, 2003). In this study, the  $r_{wg(j)}$  averages ranged from .60 to .82, and the  $r_{wg(j)}$  medians ranged from .67 to .93, suggesting that the constructs exhibit moderate to very strong agreement (LeBreton & Senter, 2008). The ICC(1) corresponds to a measure of effect size (Bliese, 2000) indicating the extent to which individual ratings are due to group membership (LeBreton & Senter, 2008). ICC(1) may be interpreted as the percentage of the total variance that can be explained by the grouping variables. The ICC(1) values ranged from .09 to .19, with an average across scales of .14. The analyses of variance (ANOVA) performed to calculate ICC(1) values all indicated that the group effect was significant ( $p = .001$ ). Overall, these analyses provided justification for aggregation in our sample.

### *Analytical strategy*

The highly theoretical concepts under study called for a confirmatory analytical approach. We used two-step modeling as recommended by Anderson and Gerbing (1988). First, we carried out

a confirmatory factor analysis (CFA), specifying our measurement model and comparing it with alternative measurement models. We then used structural equations to test our hypotheses. Mediation tests were performed based on the structural equation modeling (SEM) approach (James & Brett, 1984) and we tested for the significance of the mediated effects using Sobel's (1982) test.

The models were compared using chi-square difference tests. All analyses were conducted using the maximum likelihood estimation method. Several indices were used to assess the degree of adjustment of the proposed measurement and structural models to the data collected, i.e., the chi-square ( $\chi^2$ ), the *root mean square error adjusted* (RMSEA), the *Tucker-Lewis index* (TLI), the *goodness-of-fit index* (GFI) and the *comparative fit index* (CFI). We therefore show absolute (RMSEA, GFI), parsimonious ( $\chi^2$ ) and incremental (CFI, TLI) indices (Byrne, 2001).

## Results

### *Confirmatory factor analyses*

First we performed a CFA to confirm the validity of the measurement scales for the nine latent variables of the hypothesized model (IS leadership, consideration leadership, distributive justice, procedural justice, economic exchange, POS, AOC, COC and OCB). In this model, the latent variables were intercorrelated, unlike the measurement errors observed. The CFA presented in Table 1 reveals that the nine-factor model yielded a very good fit to the data ( $\chi^2$  [204] = 413.09,  $p < .001$ , GFI = .87, TLI = .97, CFI = .97, RMSEA = .05). All the standardized factorial loadings ( $\lambda$ ) of the different items on their respective latent variables were significant ( $p < .001$ ), and the average is .87. To further assess the discriminant validity of the measurement scales, we compared our model with five alternative models. The hypothesized model outperformed an eight-factor model that combines IS leadership and consideration leadership

( $\Delta\chi^2 [9] = 226.58, p < .001$ ). Similarly, our model was superior to a model in which the two components of organizational justice were merged ( $\Delta\chi^2 [9] = 432.69, p < .001$ ) and to a model that combined the two exchange factors ( $\Delta\chi^2 [9] = 510.95, p < .001$ ). The hypothesized model also yielded a better fit than an eight-factor model combining continuance commitment and affective commitment ( $\Delta\chi^2 [9] = 107.71, p < .001$ ). Finally, following the recommendation of Podsakoff, MacKenzie, Lee & Podsakoff (2003), we examined a single-factor model. This test revealed a poor fit to the data and the single-factor model was significantly inferior to the hypothesized model ( $\Delta\chi^2 [45] = 2949.26, p < .001$ ).

Descriptive statistics, internal consistency reliabilities, and intercorrelations for the study variables are reported in Table 2.

Table 1

*Confirmatory Factor Analysis of Measurement Models: Fit Indices*

Model	$\chi^2$	<i>df</i>	$\Delta \chi^2$	$\Delta df$	GFI	TLI	CFI	RMSEA
Hypothesized nine-factor model	413.09*	288	–	–	.87	.97	.97	.05
Eight-factor models								
Combining IS leadership and consideration leadership	639.67*	297	226.58*	9	.80	.91	.93	.08
Combining distributive justice and procedural justice	700.40*	297	342.69*	9	.79	.90	.91	.08
Combining economic exchange and POS	915.04*	297	501.95*	9	.78	.84	.86	.10
Combining COC and AOC	520.80*	297	107.71*	9	.84	.94	.95	.06
One-factor model	2949.26*	333	2536.17*	45	.46	.40	.43	.20

*Note.* *N* (groups) = 204. GFI = goodness of fit index; TLI = Tucker-Lewis index; CFI = comparative fit index; RMSEA = root-mean-square error of approximation.

\*  $p < .001$ .

Table 2

*Summary Statistics and Zero-Order Correlations*

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9
1. IS leadership	5.17	.63	(.79)								
2. Consideration leadership	5.06	.78	.43**	(.89)							
3. Distributive justice	4.23	.92	.23**	.43**	(.94)						
4. Procedural justice	4.90	.69	.25**	.44**	.61**	(.88)					
5. Economic exchange	2.92	.68	.07	-.12	-.12	-.22**	(.85)				
6. POS	5.52	.76	.29**	.53**	.62**	.58**	-.18*	(.90)			
7. COC	4.65	.97	.31**	.45**	.55**	.47**	-.28**	.59**	(.81)		
8. AOC	5.64	.72	.31**	.49**	.49**	.48**	-.41**	.73**	.78**	(.92)	
9. OCB	6.12	.84	.10	.18*	.29**	.29**	-.09	.22**	.70	.14	(.87)

*Note.* *N* (groups) = 204. Alpha coefficients are reported in parentheses along the diagonal.

\*  $p < .05$ ; \*\*  $p < .01$ .

*Structural model tests*

As can be seen from Table 3, the hypothesized fully mediated model ( $M_T$ ) fits the data well ( $\chi^2 [204] = 686.85, p < .001, GFI = .80, TLI = .91, CFI = .92, RMSEA = .08$ ). Five of the eight hypothesized paths are significant. The relationship between distributive justice and economic exchange was not significant, nor was the link between economic exchange and COC, or the link between COC and OCB. We therefore compared the hypothesized model ( $M_T$ ) with a partially mediated model in which we had a path from consideration leadership to POS ( $M_2$ ). This model showed a significantly better fit than the hypothesized model ( $\Delta\chi^2 [1] = 21.68, p < .05$ ). We thus decided to retain this partially mediated model.  $M_2$  was then compared with a partially mediated model ( $M_3$ ) in which a path from procedural justice to AOC was added.  $M_3$  did not fit the data significantly better ( $\Delta\chi^2 [1] = 1.06, ns$ ). Next, we tested a partially mediated model in which we freed a path from POS to OCB ( $M_4$ ) and compared it with  $M_2$ . Adding this path did not improve the model ( $\Delta\chi^2 [1] = 1.79, ns$ ).

Table 3

*Tests of Structural Models: Fit Indices*

Model	$\chi^2$	<i>df</i>	$\Delta \chi^2$	$\Delta df$	GFI	TLI	CFI	RMSEA
M <sub>1</sub> . Hypothesized fully mediated model	686.85**	312	–	–	.80	.91	.92	.08
M <sub>2</sub> . Partially mediated model (i.e. adding path from consideration leadership to POS)	665.17**	311	21.68*	1	.81	.91	.92	.08
M <sub>3</sub> . Partially mediated model (i.e. adding path from procedural justice to AOC)	664.11**	310	1.06	1	.81	.91	.92	.08
M <sub>4</sub> . Partially mediated model (i.e. adding path from POS to OCB)	663.38**	310	1.79	1	.81	.91	.92	.08
M <sub>5</sub> . Alternate Model 1 (i.e. adding path from IS leadership to procedural justice)	661.02**	310	4.15*	1	.81	.91	.92	.08
M <sub>6</sub> . Alternate Model 2 (i.e. adding path from distributive justice to POS)	637.44**	309	23.58**	1	.82	.92	.93	.07
M <sub>7</sub> . Alternate Model 3 (i.e. adding path from consideration leadership to distributive justice)	606.62**	308	30.82**	1	.83	.93	.93	.07

*Note.* *N* (groups) = 204. GFI = goodness of fit index; TLI = Tucker-Lewis index; CFI = comparative fit index; RMSEA = root-mean-square error of approximation.

\*  $p < .05$  \*\*  $p < .001$ .

*Alternate models*

We tested some alternate models to improve the basic model proposed. We first tested a model in which we added a direct path from IS leadership to procedural justice (M<sub>5</sub>). We did so because Judge et al. (2004) argue that initiating structure behaviors are relevant to procedural justice. Indeed, structuring leaders should foster procedural justice because they clearly communicate expectations and set clear standards. However, their directive nature may cause followers to feel that they are voiceless in the establishment of rules and procedures. As can be seen in Table 3, this model (M<sub>5</sub>) showed a significantly better fit than the M<sub>2</sub> partially mediated model ( $\Delta\chi^2 [1] = 4.15, p < .05$ ).

Next, the alternate model M<sub>6</sub> proposed a direct path from distributive justice to POS. Knippenberg et al. (2004) stated that the role of distributive justice in leadership effectiveness is justified, but the evidence is inconsistent. However, a high level of equity sends a signal to employees that the organization supports them, values their contributions and accords importance to their well-being (Eisenbergher et al., 1986; Paré & Tremblay, 2007). The fit of this model was superior to that of the M<sub>5</sub> model ( $\Delta\chi^2 [1] = 23.58, p < .001$ ).

The last alternate model (M<sub>7</sub>) proposed adding a direct path from consideration leadership to distributive justice. To our knowledge, the relationship between consideration leadership and distributive justice has never been studied. However, we argue that this relationship is possible. According to Fleishman (1953), consideration behaviors include expressing appreciation for a good job, treating direct reports equally and criticizing a specific act rather than a particular individual. Research on transformational theory may provide additional insights. While Pillai et al. (1999) observed no significant relationship between transformational leadership and procedural justice, others studies report significant links (e.g., Gaudet et al., 2009; De Cremer, VanDjike & Bos, 2007). Subordinates that are supervised by a leader with a strong sense of

consideration are more likely to see their leader as acting on behalf of their employer and to perceive the distribution of rewards as just. This model (M<sub>7</sub>) produced a significant improvement to the M<sub>6</sub> model ( $\Delta\chi^2 [1] = 30.82, p < .001$ ). We thus retained alternate model M<sub>7</sub> as our final model (see Figure 2).



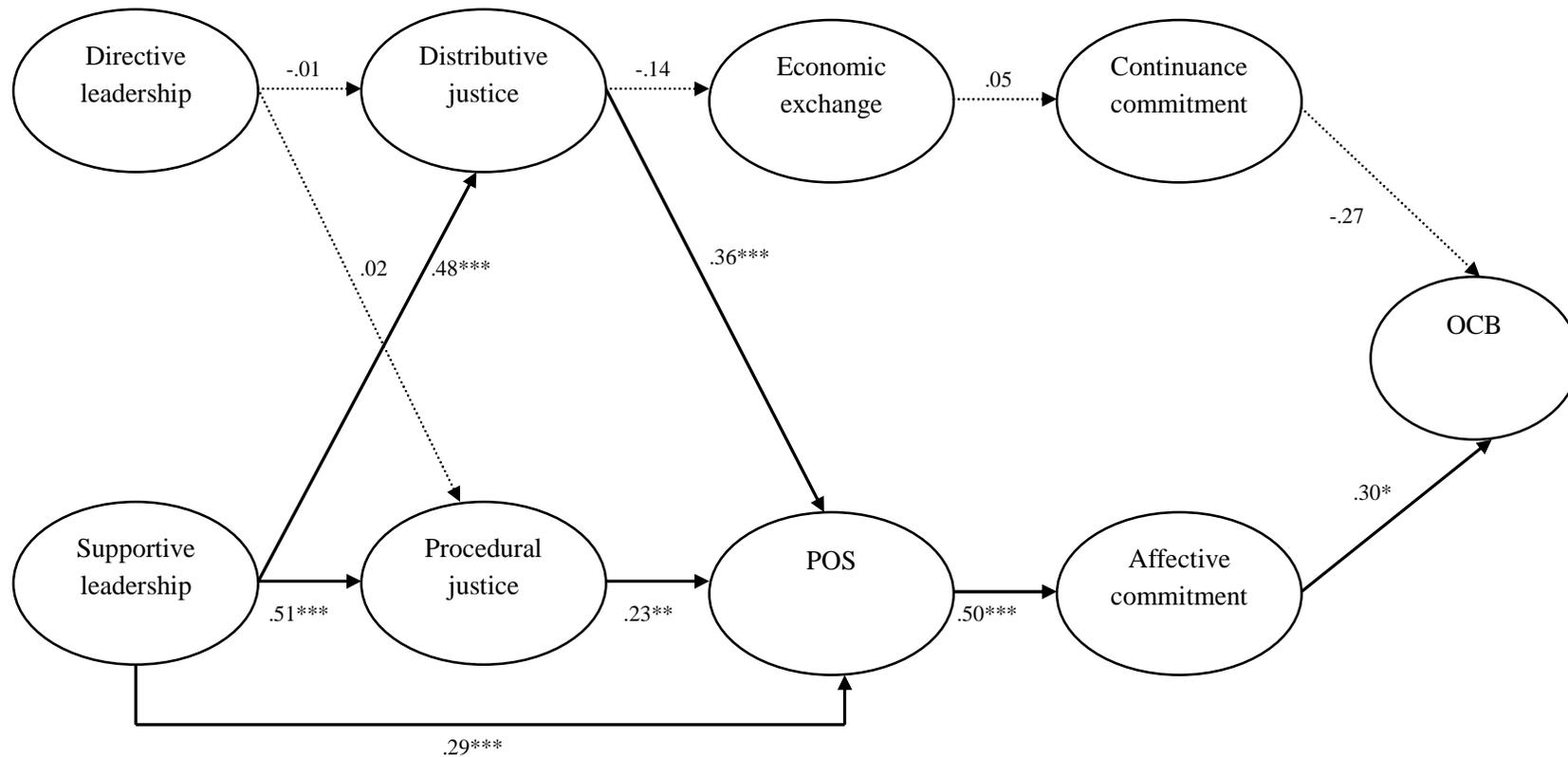


Figure 2. Maximum-likelihood parameter estimates for alternate model M<sub>7</sub> (final model).

\*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

*Hypothesis testing*

Results of our structural model tests reveal an interesting finding. None of the mediation hypotheses that refer to the economic exchange process were supported (H1, H3, and H5). As can be seen from Figure 2, no significant direct relationship was found between IS leadership and distributive justice ( $\beta = -.01, ns$ ), between distributive justice and economic exchange ( $\beta = -.14, ns$ ), between economic exchange and COC ( $\beta = .05, ns$ ), or between COC and OCB ( $\beta = -.27, ns$ ).

However, all mediation hypotheses about social exchange process are supported (H2, H4 and H6). First, H2 (a) proposed that procedural justice would mediate the relationship of consideration leadership to POS. The results indicate that consideration leadership is positively related to procedural justice ( $\beta = .51, p < .001$ ) and that procedural justice is positively related to POS ( $\beta = .23, p < .01$ ). Sobel's test of indirect effects indicates that the mediation is significant ( $Z = 4.78, p < .001$ ). The test of  $M_2$  revealed that the mediation is partial and that the direct path from consideration leadership to POS is significant ( $\beta = .29, p < .001$ ), thus supporting H2 (b). Second, H4 (a) predicted that POS would mediate the relationship between procedural justice and AOC. The results indicate that procedural justice is positively related to POS ( $\beta = .23, p < .01$ ) and that POS is positively related to AOC ( $\beta = .50, p < .001$ ). Sobel's test of indirect effects indicates that the mediation is significant ( $Z = 6.23, p < .001$ ). H4 (a) was therefore supported. The mediation is also complete, as the direct relationship between procedural justice and AOC was not significant (H4 (b) not supported). Third, H6 (a) proposed that AOC would mediate the relationship of POS to OCB. The results indicate that POS is positively related to AOC ( $\beta = .50, p < .001$ ) and that AOC is positively related to OCB ( $\beta = .30, p < .05$ ). Sobel's test of indirect effects indicates that the mediation is significant ( $Z = 2.15, p < .05$ ). Further, the test of  $M_4$

revealed that the mediation is complete and that the direct path from POS to OCB is not significant (H6 (b) not supported).

Among the alternate paths that we have tested, two relationships were significant: the relationship between consideration leadership and distributive justice ( $\beta = .48, p < .001$ ) and the relationship between distributive justice and POS ( $\beta = .36, p < .001$ ).

### Discussion

The main objective of this study was to propose and test a model of aggregate level linking probably one of most neglected conceptualization of leadership --IS and consideration-- (Judge et al., 2004) and unit-level OCB. We also evaluate the potential mediating influence of social and economic exchange processes, represented by distributive and procedural justice, economic exchange, POS, OAC, and COC. We used a sample of 204 business units of an international Canadian retailer. The results provided partial support for Shore et al., (2006). Whereas we supported the proposition that social and economic exchange relationships are independent at the aggregate level, as Blau (1964) and most social exchange scholars have suggested, our results revealed that economic exchanges, contrary to the findings of Shore et al. (2006), did not appear to be a relevant framework for understanding attitudes and behaviors in the workplace. The economic exchange climate is not predicted, nor has an influence on transactional outcomes.

However, consistent with Shore et al. (2006) and Cropanzano & Rupp (2002), we found that the social exchange climate in the workplace is a stronger and more relevant perspective for explaining positive attitudes and OCB in the workplace. Our findings add evidence to the conclusions of Judge et al. (2004) that the initiating structure and consideration behaviors theory is a useful and effective leadership approach.

Three of the six main mediation hypotheses were partly or totally supported. Hypothesis 1, which stipulates that distributive justice will mediate the relationship between IS leadership and economic exchange, was not supported. No significant link was observed between IS leadership and economic exchange. Managers with a strong sense of structure appear unlikely to develop a more favorable economic exchange climate in their business unit. Furthermore, the relationship between IS leadership and distributive justice became non-significant when a direct path was added from consideration leadership to distributive justice. Thus our findings suggest that consideration leaders are more likely to elicit a strong positive distributive justice climate than IS leaders. Our findings, at the aggregate level, are not fully consistent with those of Pillai et al. (1999), who found a significant relationship between transactional leadership and individual perceptions of distributive fairness.

Hypothesis 2, which stated that procedural justice mediates the relationship between consideration leadership and social exchange climate, measured in this study by POS, was fully supported. Procedural justice seems to partially mediate the link between consideration leadership and POS. To our knowledge, this study is the first to demonstrate that the consideration leadership climate may enhance the procedural justice and POS climates and thus add to the evidence that leadership fairness matters (Knippenberg et al., 2004). Judge et al. (2004) speculate that consideration leadership is relevant to procedural fairness because such leaders are more likely to follow several of Leventhal's (1980) rules. Our findings are consistent with those of Pillai et al. (1999) and of Gaudet et al. (2009), who found that transformational leaders were seen as more procedurally fair. They are also consistent with the meta-analysis of Rhoades et al (2002) that provided evidence that leadership behaviors play an important role in the POS. Concerning the procedural justice-POS relationship, despite the strong evidence provided by previous research at the individual level (Fasolo, 1995; Moorman et al., 1998;

Rhoades et al., 2001; Rhoades & Eisenberger, 2002), our research was probably among the few studies that have found a significant relationship between procedural justice and POS at the aggregate level. Consideration leaders that use fair procedures are more likely to send credible signals that the organization cares about employees' well-being and takes measures to provide support (Lind & Tyler, 1988; Rhoades et al., 2001) and that the employees are valued by the organization (Moorman et al., 1998). In addition, this research adds to the growing evidence that the fairness climate is a relevant mediating factor for understanding the influence of other stimuli, such as leadership, on several outcomes (Mossholder et al., 1998; Naumann & Bennett, 2002; Liao & Rupp, 2005; Ehrhart, 2004).

The third hypothesis was not supported; economic exchange was not significantly linked with distributive justice or COC. Shore et al. (2006) observed that economic exchange is significantly related to COC in only one of their two studies. Thus, there is no consistent evidence that strong economic exchange increases the desire to stay with an organization. Employees do not seem to be 'locked in' as a result of their advantageous economic work conditions and their strong economic relationship with employer. A few observations ensue from these findings. First, a pure economic exchange relationship in the workplace may be a rare phenomenon. For example, the mean level of economic exchange in this study is 2.92 and is comparable to the mean of 2.6 in the study by Shore et al. (2006) (vs.  $M = 5.52$  and  $M = 3.3$  for POS). Second, it is possible that distributive justice and COC result from successful social exchange relationships rather than from an instrumental reward process. Table 2 shows a strong positive association between distributive justice and POS ( $r = .62, p < .01$ ), and negative links between economic exchange and POS ( $r = -.18, p < .05$ ) and procedural justice ( $r = -.22, p < .01$ ). The additional path from distributive justice to POS produced a significant improvement in data fit. This finding suggests, contrary to the position of many organizational behavior scholars that the positive influence of a

reward fairness climate derives primarily from human and social exchanges rather than from a process of perceived instrumental or extrinsic motivation. Such argument is consistent with several studies that have proposed that the positive effects of CRL are dependent on contextual factors or climates governing relationships, namely perceptions of justice, trust and affective commitment (De Cremer et al., 2007 and Walumbwa et al., 2008; Deckop, Mangel, & Cirka, 1999). More recent evidence was provided by Blader and Tyler (2009), who found that relationships between economic outcomes (satisfaction with rewards, fairness of rewards and distributive justice) and OCB was completely mediated by the construct of social identity, namely perceptions of pride and respect. These findings suggest that distributive justice may contribute to the performance of OCB. Nonetheless, this beneficial outcome will be fully realized only if this fairness is performed through successful social exchange channels rather than across economic paths and exchanges. More research should be conducted to find more convincing evidence of such explanations.

Hypothesis 4, which suggests that POS climate mediates the relationship between procedural justice and AOC, received full support. To our knowledge, this research is the first to have tested this mediating path at an aggregate level. The higher the procedural justice and POS climates, the stronger the AOC climate is in the workplace. These results mirror previous findings on the relationship between procedural justice and AOC at aggregate (Liao & Rupp, 2005; Ehrhart, 2004) and individual levels (e.g., Shore & Wayne, 1999; Rhoades et al., 2001; Muse & Stamper, 2007; Rhoades & Eisenberger, 2002; Tremblay et al., 2010). The use of fair procedures and systems enhance employee AOC because fairness suggests that employees are respected members of an organization (Lind & Tyler, 1988). Fair procedures enhance the feeling of being treated as a full member of an organization, which reinforces the emotional bond to the group. Although the relationship between POS and AOC has never been investigated at the unit level in

previous studies, to our knowledge, our results are consistent with findings at the individual level. Whatever the level of analysis, there is evidence that employees agreed to exchange their commitment for the employer's support (Cropanzano & Mitchell, 2005; Eisenberger et al., 1986).

Hypothesis 5, which predicts that COC mediates the relationship between economic exchange and OCB, was not supported. However, the non-significant relationship between COC climate and unit-level OCB is consistent with several meta-analyses (Meyer et al., 2002; Riketta, 2002). These reviews provided strong evidence that COC is, in some cases, significantly negatively related to OCB, and in most other cases, not significantly related to extra-role behaviors. In a certain way, these findings are not inconsistent with some scholars' criticisms of the conceptual ambiguity of the continuance commitment construct (Cohen, 2007) and its capacity to predict outcomes other than turnover (Solinger, Olffen & Roe, 2008). However, it is possible that testing the two latent sub-dimensions of COC, lack of alternatives (ALT), and perceived personal sacrifice (SAC), separately, as Vandenberghe et al. (2007) recommended, would have produced different results. For example, Bentein et al. (2004) show that ALT is negatively related and SAC positively related to extra-role behaviors. Additional research at the aggregate level is probably needed to provide more convincing evidence of such results.

Hypothesis 6, which stated that AOC mediates the relationship between POS and unit-level OCB, received support. The higher the POS and AOC climates, the higher the unit-level OCB. Our analysis reveals that the direct effect of POS on OCB is non-significant (M4) and that AOC fully mediates the influence of POS on OCB. The influence of AOC on OCB has received wide support in previous studies at the individual level (e.g., Meyer et al., 2002; Paré and Tremblay, 2007). Employees with a strong AOC are probably more willing to take a broader view of their

work roles (Tepper and Taylor, 2003) and are less sensitive to signals or constraints that could restrict their behaviors (Meyer and Herscovitch, 2001).

We also tested direct links between the variables (alternative models) to enrich our analysis model and its interpretation. The results show that IS leadership is positively but not significantly related to procedural justice. Furthermore, we tested an alternative model that proposed a direct link between consideration leadership and distributive justice (alternate model M<sub>7</sub>). The addition of this path improved the results. This finding was discussed earlier.

### Conclusion

This research is one of the few studies to have evaluated the effect of the initiating and consideration leadership approach on unit-level OCB at the aggregate level, using a sample of 204 stores. We tested a complex causal chain of economic and social exchange relationships. Our results indicate that consideration leadership behaviors can stimulate a higher level of OCB-helping in the business unit if the leader successfully promotes a strong climate of fairness, caring and recognition of contributions, and creates an emotionally binding climate toward the organization. Our results imply that the initiating structure dimension is a less successful leadership style than previous studies found. In this study we used the IS version of Litwin and Stringer (1968), a more direct scale than other instruments (e.g., LBDQ, LDBQ-XII, LOQ). The meta-analysis performed by Jude et al., (2004) provides evidence that the measures of initiating structure and consideration moderates the effect of leadership on outcomes. They found that the use of more direct version of IS, as SBDQ, was less strongly related to leader effectiveness (SBDQ:  $r = .07$ ; LBDQ:  $r = .32$ ; LBDQ-XII:  $r = .32$ ). Thus the weak and non-significant results observed in the present study may be attributable to the instrument used.

Another contribution of this study is that it provides evidence that, according to social exchange theory (Blau, 1964), strong economic exchanges do not elicit an obligation of

reciprocity. Rather, a strong relationship based on social exchanges, initiated primarily by consideration behaviors, and to a lesser extent by task-orientation behaviors, is more likely to create the favorable conditions to motivate employees to reciprocate these relational benefits.

Although this study makes a valuable contribution to the literature, it has limitations. First, the research was conducted in only one organization, which limits the generalizability of its results. However, a study in a single organization with multiple business units allows the researcher to control for some external factors. Second, the study rests on a “cross-sectional” design. Consequently, we cannot draw a definitive conclusion on the relations of causality, despite the fact that the tests involved structural equations. A longitudinal design would have clarified the direction of relations between the intermediate variables. For example, it is possible that unit-level OCB have an influence on POS and AOC rather than the reverse. Another limitation is the fact that all the social and economic exchange constructs were measured simultaneously, thus raising the problem of common variance. However, the common-variance bias was reduced because the measure of OCB originates from the unit managers. Moreover, the OCB items were directed and measured at the group level rather than the individual level (Liao & Rupp, 2005).

Further, the interactional dimensions of justice (interpersonal and informational) were excluded. This was done because preliminary analysis revealed a strong correlation between interactional fairness and consideration leadership, which precluded their inclusion in the analysis. The strong association between interactional fairness and consideration became more evident when we examined the items of consideration measure (e.g., “Your manager believes subordinates’ feelings are as important as the task at hand”, and “Your manager frequently demonstrates concern for employees”). This observation suggests that the leader consideration dimension shares a large variance with the interactional dimension of organizational justice.

This study paves the way for future research. One interesting avenue would be to evaluate more specific facets of social constructs. Regarding fairness, what structural rules and relational features have the most influential effect on commitment and performance at the collective level? Concerning POS, it would be useful if additional research looked at which type of POS, social, psychological, technical, or other support resources matter. Another worthwhile line of research is to examine the social exchange climate from the multifoci perspective, taking into account the immediate supervisor, team members, employers and customers (Cole et al., 2002; Lavelle et al., 2008; Lavelle et al., 2007; Masterson et al., 2000). Further, it would be intriguing to examine the boundary conditions that may improve the effectiveness of leadership and social exchange climates in the workplace. Potentially promising moderators include the level of interdependence of team members and units (e.g. Robertson, 2006), team diversity (Colquitt, 2002) and size of business unit (Koene et al., 2002). One emerging research trend in climate literature is to evaluate the main effect and the interactive effect of climate level and climate strength. Since findings regarding the role of climate strength are inconsistent (e.g., Colquitt, 2002; Lindell & Brandt, 2000; Schneider et al., 2002), additional research must be pursued on this topic before reaching a definitive conclusion.

### Practical Implications

Our results suggest practical implications for organizations and team leaders. Organizations must be aware that managers with a strong consideration orientation have a higher probability of creating a favorable working climate, of eliciting more unit-level OCB and, consequently, of producing stronger business performance. Leaders motivated to improve their effectiveness should direct their efforts toward improving the fairness climate and satisfying emergent needs manifested by a critical mass of employees. Another practical implication is that decision-makers and human resources professionals must be aware that to be effective, their economic rewards

and pay policies must be integrated in a global strategy where relational contracts and emotional exchanges are paramount.

To conclude, this study aimed to extend the research on leadership climate effectiveness and social and economic exchange in the workplace. More particularly, our results deepen our understanding of the effects of organizational climate quality. This study shows that leaders with a strong orientation towards consideration elicit a more positive social exchange climate and stronger attitudinal and behavioral commitment among group members.

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