

What signals does procedural justice climate convey? The roles of group status, and organizational benevolence and integrity

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Summary

We propose and test a theoretical framework to explore why and how procedural justice climate influences individual behaviors after controlling for the influence of individual justice perception. Two types of symbolic information conveyed by procedural justice climate are considered. We argue that procedural justice climate reflects the status of or respect for a justice recipient, a work unit within an organization in our context, which then influences the identification of its members with the work unit. Procedural justice climate also reflects the moral attributes of a justice actor, herein an organization, which then influences organizational identification and perceived job security. Consistent with these arguments, results showed that perceived respect for the work unit mediated the relationship between procedural justice climate and identification with the work unit, and both perceived organizational benevolence and integrity mediated the relationship of procedural justice climate with organizational identification and job security. The two types of social identification and perceived job security were related to several outcome variables differently. Copyright © 2013 John Wiley & Sons, Ltd.

Keywords: procedural justice climate; respect for the work unit; benevolence and integrity; social identification; job security

Since the seminal works of Mossholder, Bennett, and Martin (1998) and Naumann and Bennett (2000), the idea that justice constitutes a contextual variable has become widely accepted. Justice climate refers to “a distinct group-level cognition about how a work group as a whole is treated” (Naumann & Bennett, 2000, p. 882). Following this definition, the relevant unit of analysis is a work group, and we argue that justice climate tends to vary across work groups within an organization for a variety of reasons. It is natural that some work units may occupy more important strategic positions than others, and members of such work units may be given more opportunities to express their opinions, resulting in a stronger justice climate. Differential human resource management practices may be applied to different work units on the basis of their functions and responsibilities. For example, the criteria for performance appraisal may vary significantly across departments such as marketing, R&D, and production. Even when company-wide policies and procedures are implemented consistently across different work units, members from different groups may attach different meanings to similar organization events (e.g., Rentsch, 1990), resulting in different levels of justice climate across workgroups.

Considerable research has shown that justice climate not only explains significant variance in outcomes at the group/team and organization levels (Colquitt, Noe, & Jackson, 2002; Naumann & Bennett, 2002) but also contributes to the prediction of individual-level outcomes, such as job satisfaction (e.g., Mossholder et al., 1998), helping behavior or organizational citizenship behavior (OCB; e.g., Naumann & Bennett, 2000), and organizational commitment (e.g., Liao & Rupp, 2005; Wu & Hu, 2009). Although it is well documented that justice climate can explain additional variance in individual outcomes over and above individual justice perception, we know relatively little about the mechanisms underlying such effects. This gap is significant because the attempt to answer the

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questions of why and how justice perceptions influence individual attitudes and behaviors is a central focus of justice theorizing. The literature on organizational climate does not provide much helpful insight in this regard because it is primarily concerned with the effects of organizational climate, rather than with the underlying mechanisms (Carr, Schmidt, Ford, & DeShon, 2003). Although justice theories provide many well-known explanations for the dynamics underlying procedural justice effects at the individual level, they are not applicable because they are not formulated to account for the collective nature of justice climate and the underlying dynamics. The present research addresses this gap by developing and testing a theoretical model that accounts for the effects of procedural justice climate (PJ climate) on individual attitudes and behaviors after controlling for the influence of individual justice perception.

Previous research on justice climate focuses mostly on PJ climate, because individual perceptions of procedural justice are based upon relatively formal policies, procedures, and practices that apply to all members of a group and are likely to converge across individuals. Information on procedural justice at the collective level is also easy to interpret (Roberson & Colquitt, 2005). Following this line of research, we focus on PJ climate in the present research. Given that organizations often develop policies and establish general guidelines for decision-making procedures, procedural justice perception (PJ perception) is typically oriented toward an organization as a whole (e.g., Bies & Moag, 1986; Cropanzano, Prehar, & Chen, 2002; Masterson, Lewis, Goldman, & Taylor, 2000; Olkkonen & Lipponen, 2006). We therefore focus on PJ climate emanating from an organization, that is, the source of justice treatment is the organization as represented by senior management.

Taking into account the major justice theories at the individual level, we develop a theoretical model that emphasizes the symbolic information conveyed by PJ climate. Consistent with the long-held view in social psychology that people's reactions to the environment are based more on their perceptions of the environment than on the environment itself (e.g., Markus & Zajonc, 1985), we posit that PJ climate, an environmental factor, conveys important signals that shape individual perceptions of the justice source entity (i.e., the organization in our context) and the recipient entity (i.e., a work unit). These perceptions in turn influence their attitudes and behaviors. First, adapting the individual-level logic of the group-value (Lind & Tyler, 1988) and relational models (Tyler & Lind, 1992) to our context, we argue that PJ climate symbolizes the nature of the relationship between a work unit (the recipient) and the organization (the source of justice). Viewed from this perspective, PJ climate can signal whether a work unit is respected by the organization, or the social status of the work unit within the organization. We further posit that group members are more likely to identify with a justice recipient entity, that is, their work unit, if it receives higher respect from the organization. Note that perceived status of a recipient work unit should be associated with PJ climate, but not with individual justice perception because the respect applies to all members and does not vary across individuals within the work unit.

Second, the moral virtue model of justice (Cropanzano & Rupp, 2002), fairness theory (Folger & Cropanzano, 2001), and fairness heuristic theory (Van den Bos, Lind, & Wilke, 2001) all suggest that justice-related judgments and behaviors are driven by moral concerns. Adapting this line of theorizing to our context, we argue that people are concerned about the morality of social actors and that moral inferences are made based on the justice behaviors of these actors. Thus, PJ climate can signal to employees the moral attributes of the source entity or justice actor (the organization), in terms of its integrity and benevolence. We further argue that employees are more likely to identify with an organization high on benevolence and integrity and feel secure in the organization.

In a nutshell, we theorize that PJ climate is related to two types of group identification, identification with the organization and with a work unit, as well as perceived job security through individual perceptions of the status of the work unit and the moral attributes of the organization. Note that the concept of identification in our research focuses on two essential components: emotional and evaluative. The evaluative component refers to people's evaluation of the group they belong to, and the emotional component focuses on the affective commitment or attachment to the group (Ellemers, Kortekaas, & Ouwerkerk, 1999; Jackson, 2002). We do not consider the cognitive component, which refers to the cognitive awareness of one's membership and the cognitive representation of the overlap between the self and the group, often labeled as "self-categorization" (Ellemers et al., 1999; Jackson, 2002), because self-categorization is unlikely to be directly affected by the perceived status and characteristics of a social

group. Indeed, Ellemers et al. (1999) failed to find a significant association between group status and self-categorization, and Turner, Hogg, Oakes, Reicher, and Wetherell (1987) found that self-categorization was not influenced by group status and group characteristics. To provide further support for our research model, we also hypothesize that the two types of social identification and job security show differential relationships with a variety of outcome variables. See Figure 1 for the research model.

This research makes several important theoretical contributions. First, it contributes to the literature on organizational climate and on organizational justice by answering the important questions of why and how PJ climate influences individual behaviors after controlling for individual PJ perception. Second, we formulate a theoretical model for PJ climate by adapting and integrating theories of justice, social identity, and job security. Our focus is to extend and integrate relevant individual-level justice research and theories, including the moral virtue model of justice and the relational theory, fairness theory, and fairness heuristic theory, to account for the effects of PJ climate. Finally, we demonstrate that the various processes underlying the influence of PJ climate are related to different types of work outcomes.

Theory and Hypotheses

Procedural justice climate, and perceived respect for and identification with the work unit

To understand how PJ climate affects individual work outcomes, we first explore the signals conveyed by PJ climate that have implications for the justice recipient entity by adapting the group-value (Lind & Tyler, 1988) and relational

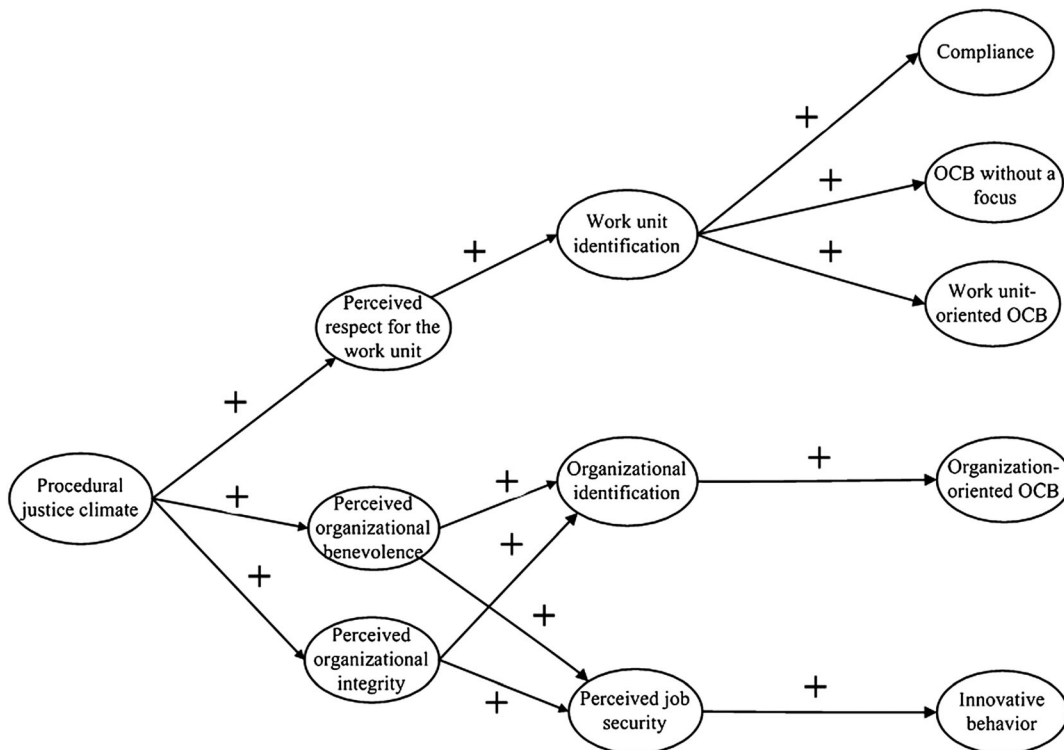


Figure 1. The proposed model

models (Tyler & Lind, 1992) for the group context. The basic tenet of the group-value (Lind & Tyler, 1988) and relational models (Tyler & Lind, 1992) is that individuals are sensitive to procedural justice because it communicates to them information about their status within their group. However, these models do not apply to PJ climate, because in the group context, it does not reflect how an individual is treated but rather the nature of the relationship between a work unit and the organization. In the assessment of justice climate, its implications for the social status of individual members within a group are not salient as the referent is not the individual but the entire group. This complexity arises because individuals simultaneously belong to a work unit (justice recipient entity) and an organization (justice source entity), and work units are nested in the organization. The intragroup approach of the group-value and relational models is not formulated to address the complex relationships among individuals, work units, and the organization. We argue that the influence of justice climate does not operate through the concern for personal status within a group but is tied to social identity, that is, identity based on group membership (Leung, Tong, & Lind, 2007).

Yang, Mossholder, and Peng (2007) argued that individual- and collective-level procedural justice are functionally isomorphic because procedural justice at both levels conveys symbolic information concerning the social exchange relationship between the justice source and recipient, which influences individual attitudes and behaviors. On the basis of their argument, we adapt the group-value and relational models to the group context and propose that justice climate contributes to people's evaluation of the status of their work units within the organization, which we label "perceived respect for the work unit." Employees infer from the level of PJ climate of their work unit to determine the extent to which their work unit is respected and valued within the organization.

Social identity theory holds that an important way that people develop their self-concept is based on how other people and the larger society view and treat the group to which they belong. It is well documented that people like to join and identify with high-status groups and avoid membership in low-status groups to maintain a positive self-worth (Ellemers, Van Knippenberg, De Vries, & Wilke, 1988; Tajfel & Turner, 1979). For example, in an experimental study, Ellemers et al. (1999) manipulated various group features and found that group status predicted the evaluative (i.e., collective self-esteem) and emotional components (i.e., affective commitment) of group identification. Hogg and Hains (1996) conducted a survey among netball team members and found that perceived group status was closely associated with group identification. It follows that the perception of high social status, or respect for the work unit, is related to high identification with the unit.

Integrating these two lines of argument, we propose that PJ climate is associated with perceived respect for the work unit, which in turn leads to member identification with the work unit.

Hypothesis 1a: Procedural justice climate is positively related to perceived respect for the work unit, independent of individual PJ perception.

Hypothesis 1b: Perceived respect for the work unit is positively related to identification with the work unit, independent of individual PJ perception.

Hypothesis 1c: Procedural justice climate influences identification with the work unit through perceived respect for the work unit, independent of individual PJ perception.

Effects of procedural justice climate through perceived organizational benevolence and integrity

We posit a second pathway for the effect of PJ climate, which is concerned with the perceived attributes of the justice actor, the organization in our context. Rawls (1971) asserted that "justice is the first virtue of social institutions" (p. 3) and Van den Bos (2001b) argued that "the norms and values of fairness and justice constitute a fundamental feature of human life" (p. 931). The moral virtue model of justice (e.g., Cropanzano & Rupp, 2002) holds that the motivation to comply with rules of justice comes from respect for human dignity and a willingness to fulfill moral obligations.

Addressing the relationship between justice and morality, fairness theory (Folger & Cropanzano, 2001) focuses on the implications of accountability for fairness judgments. When an actor violates moral norms and treats others unfairly, both justice recipients and observers see the actor as accountable for the moral violations and react negatively toward the actor.

The moral perspective suggests that employees expect their organization to fulfill its moral obligations, and how they perceive and evaluate the organization is influenced by the extent to which the organization fulfills the moral imperative of justice. In other words, justice recipients would make inferences about the morality of their organization on the basis of its justice behaviors. The extant literature suggests that two moral judgments about an organization are closely related to justice perceptions, namely organizational integrity and benevolence (e.g., Chen, Chen, & Xin, 2004; De Cremer, van Dijke, & Bos, 2006; Kernan & Hanges, 2002; Lind, Tyler, & Huo, 1997). Integrity, “quite possibly the most commonly cited morally desirable trait” (Audi & Murphy, 2006, p. 3), refers to the perception that an organization adheres to a set of ethical principles, and benevolence refers to the perception that an organization cares for its employees (Mayer, Davis, & Schoorman, 1995). In addition, the trust literature also supports the role of these constructs as core moral characters. Integrity and benevolence are important factors that facilitate trust (Mayer et al., 1995), and “trust has obvious ethical overtones” (Bews & Rossouw, 2002, p. 377). Hosmer suggested that “trust is based upon an underlying assumption of an implicit moral duty” (1995, p. 379) and that moral principles that are important for trust include benevolence and integrity. Wicks, Berman, and Jones (1999) pointed out that “trust has a clear moral element,” because the emotional bond created by trust is based on “in large part, a belief in the moral character of ‘good will’ of the trustee in the trusting relationship” (p. 100). They also pointed out that benevolence and integrity are two key moral characters that are essential to building trust. In sum, perceived organizational integrity and benevolence provide an appropriate framework for employees to assess their organization’s moral attributes.

We expect that PJ climate can explain additional variance in perceived organizational integrity and benevolence beyond individual-level PJ perception. According to fairness heuristic theory (Lind, 2001) and the uncertainty management model (Lind & Van den Bos, 2002), uncertainty exists ubiquitously, and people rely on procedural justice information to manage uncertainty in their working environment. However, individuals typically have limited interaction with authority figures and do not possess information about all relevant procedures. Lind, Kray, and Thompson (1998) noted that “most of the potential information about the fairness of any given authority or institution lies in collective, not personal, experiences” (p. 19). Thus, the experiences of other individuals can influence people’s justice judgments and subsequent reactions. Hence, PJ climate rather than individual perceptions of justice may provide more comprehensive and more reliable information for employees to manage the uncertainty about the trustworthiness of the authority figures within an organization.

We further argue that perceived organizational integrity and benevolence are positively associated with organizational identification. The social identity perspective suggests that people prefer to be part of a group that upholds their personal moral principles and will disassociate themselves from groups that do not (e.g., Blader & Tyler, 2005). Therefore, pride in being a member of an organization (i.e., the evaluative component of organizational identification) and affective commitment to an organization (i.e., the affective component of organizational identification) should increase when the organization upholds principles of justice (e.g., Koh & Boo, 2004; Tyler, Degoe, & Smith, 1996). In fact, threats to social identity stem from not only low group status but also the weak moral values of a group (Ellemers, Spears, & Doosje, 2002). The relationship between an authority’s benevolence and the affective commitment of an employee to an organization, a form of organizational identification, is well documented (e.g., Cheng, Huang, & Chou, 2002; Erben & Güneşer, 2008). In the meta-analysis of Colquitt, Scott, and LePine (2007), benevolence and integrity were both found to be associated with affective commitment to an organization.

In sum, our theoretical analysis suggests that PJ climate, beyond individual PJ perception, is positively related to perceived organizational integrity and benevolence, which in turn are related to identification with the organization.

Hypothesis 2a: Procedural justice climate is positively related to perceived organizational benevolence and integrity, independent of individual PJ perception.

Hypothesis 2b: Perceived organizational integrity and benevolence are both positively related to organizational identification, independent of individual PJ perception.

Hypothesis 2c: Procedural justice climate is related to organizational identification through perceived organizational integrity and benevolence, independent of individual PJ perception.

We also theorize that organizational benevolence and integrity as conveyed by PJ climate influences not only organizational identification but also perception of job security. In a business environment characterized by hypercompetition and volatility, employees typically feel vulnerable to hostile organizational decisions and uncertain about the trustworthiness of authority figures (Lind & Van den Bos, 2002) and are threatened by their organization's concern for profit (Ashford, Lee, & Bobko, 1989; Probst & Lawler, 2006). Indeed, many organizations resort to downsizing, restructuring, and mergers to remain competitive, creating feelings of job insecurity among employees concerning potential job relocation, dwindling opportunities, job loss, and pay and benefits cuts (e.g., Magnet, 1984). Even in the absence of imminent changes, employees often experience a sense of job insecurity (Ashford et al., 1989; Greenhalgh & Rosenblatt, 1984; Probst & Lawler, 2006).

Previously, job insecurity was conceptualized as concern about job loss (e.g., Kuhnert & Palmer, 1991), but its scope has been expanded, which typically refers to worries about the certainty of desirable job features, including job security/continuity, promotion opportunities, good working conditions, and long-term career opportunities (Ashford et al., 1989; Davy, Kinicki, & Scheck, 1997; Fried et al., 2003; Greenhalgh & Rosenblatt, 1984). We introduce the construct of job security to the justice area to capture the incremental influence of PJ climate on outcome variables for two reasons. First, organizational justice plays an important role in uncertainty management in the work place (Lind, 2001; Lind & Van den Bos, 2002). According to its broad definition, job security is closely related to the certainty about important job facets. Second, job security is triggered by job nature and the organizational environment (Ashford et al., 1989; Ito & Brotheridge, 2007; Probst, 2002), and PJ climate is an important contextual factor.

We argue that PJ climate can enhance job security through perceived organizational benevolence and integrity. Theories about trust suggest that organizational benevolence and integrity are indicators of the trustworthiness of top management (Mayer et al., 1995) and hence have implications for the "safety" of the working environment. A high level of perceived organizational benevolence assures employees that their organization cares about them and protects their interests and that top management would not knowingly hurt them. Similarly, a high level of perceived organizational integrity assures employees that the organization abides by ethical principles, thus providing them with a sense of security. Given that PJ climate is related to perceived organizational integrity and benevolence, we state the following hypotheses.

Hypothesis 3a: Perceived organizational integrity and benevolence are both positively related to perceived job security, independent of individual PJ perception.

Hypothesis 3b: Procedural justice climate is related to perceived job security through perceived organizational integrity and benevolence, independent of individual PJ perception.

Relationship of identification and perceived job security with outcome variables

The preceding analysis focuses on cognitive and affective constructs related to PJ climate. To provide a comprehensive test of our theorizing, we include some behavioral outcome variables in our research model. Tyler (1999)

distinguished three types of cooperative behavior—following group rules, helping the group, and staying in the group—and argued for their close relationships with identification and organizational justice. Following his typology, we incorporate two types of cooperative behaviors, namely compliance and OCB in our study. Staying in the group is excluded because this behavior is often affected by factors beyond one's control, such as work assignment by management. We include another type of behavior for its risk-taking nature, that is, innovative behavior, which is particularly relevant for perceived job security. Because our theorizing distinguishes a work unit from the organization, we examined three types of OCB: work unit-oriented OCB, organization-oriented OCB, and OCB without a specific focus, sportsmanship, which is defined as the willingness to tolerate less than ideal circumstances without complaining (Podsakoff, MacKenzie, Moorman, & Fetter, 1990). Similar to sportsmanship, compliance and innovative behavior also do not target at a specific entity (organization or work unit). The inclusion of a range of outcome variables is to capture the effects of different underlying mechanisms.

Social identification is powerful in shaping diverse behaviors (Kelman, 1958). When people identify with a social group, they generally perceive a shared fate with the group and hence are willing to invest in and contribute to it. Drawing on social identity theory, we propose that people maintain membership in a group with which they identify through compliance with group norms and values, achieving the performance levels required by the group, and even putting the interests of the group ahead of their own. Indeed, the relationships between group identification and cooperative behaviors, especially OCB and compliance, are well established (e.g., Smith & Tyler, 1997; Tyler, 1999; Tyler & Blader, 2001). Our theoretical analysis suggests that group identification will play a greater role than perceived job security in mediating the relationship between PJ climate and cooperative behaviors (OCB and compliance in our context).

We argue that PJ climate influences outcomes associated with different foci (a work unit and the organization) through different types of group identification. Specifically, we posit that identification with a work unit will be a stronger predictor of work unit-oriented OCB than identification with the organization and that the opposite will hold for the effect of identification with the organization on organization-oriented OCB. In line with this prediction, Lavelle, Rupp, and Brockner (2007) proposed a target similarity framework in their multifoci model of organizational justice on the basis of the extant empirical research. They argued that multifoci justice predicts multifoci social exchange, which in turn predicts multifoci OCB. That is, the linkages between constructs with the same target (organization, supervisor, or coworkers) are stronger than those with different targets. In the literature on social identification, the identity-matching principles are also supported. For instance, in the context of a franchising system, Ullrich, Wieseke, Christ, Schulze, and Van Dick (2007) found that organizational identification, but not corporate identification, was related to customer-oriented behavior, a behavior relevant for the local organization, whereas corporate identification rather than organizational identification predicted attitudes toward corporate citizenship behaviors. Olkkonen and Lipponen (2006) found that identification with an organization predicted turnover intention and extra-role behavior toward the organization, whereas identification with a work unit predicted extra-role behavior toward the work unit.

With regard to cooperative behaviors without a specific focus, compliance and sportsmanship, we argue that identification with a work unit will exert a stronger influence than identification with the organization. On the basis of Lewin's (1951) field theory, the influence of an entity on an individual increases as the psychological distance between the individual and the entity decreases, and the relative potency of the effect of a given situation on an individual will increase with the extent to which the individual is involved in the situation. For an employee, the work unit is a more proximal work environment than the organization, and the involvement in intraunit interactions is usually more intensive than in interunit interactions. Indeed, Dietz, Pugh, and Wiley (2004) found that the more proximal and relevant the target of a service climate (an organizational subunit versus the organization as a whole), the stronger was the relationship between service climate and customer attitudes. Many studies have demonstrated the more central role played by supervisors compared with organizations in influencing a wide range of outcome variables (Ambrose, Seabright, & Schminke, 2002; Rupp & Cropanzano, 2002). We therefore propose the following hypotheses.

Hypothesis 4a: Identification with a work unit plays a greater role than identification with the organization in mediating the influence of PJ climate on work unit-oriented OCB, after controlling for the influence of individual PJ perception.

Hypothesis 4b: Identification with the organization plays a greater role than identification with a work unit in mediating the influence of PJ climate on organization-oriented OCB, after controlling for the influence of individual PJ perception.

Hypothesis 4c: Identification with a work unit plays a greater role than identification with the organization in mediating the influence of PJ climate on cooperative behaviors without a specific focus (sportsmanship and compliance), after controlling for the influence of individual PJ perception.

Hypothesis 4d: Social identification (identification with a work unit or the organization) plays a greater role than perceived job security in mediating the relationships between PJ climate and cooperative behaviors (i.e., OCB and compliance), after controlling for the influence of individual PJ perception.

In addition, we theorize that perceived job security in particular has an influence on behavior that involves risk taking, such as innovative behavior. Because innovation often involves methods and procedures that deviate from current practices, no clear guidelines exist, and stress and failure are common (Janssen, 2004). People generally try to avoid failure because it may damage their image and professional standing (Lee, Edmondson, Thomke, & Worline, 2004). When people feel insecure about their job and career development, they are especially keen to avoid any risk that may jeopardize their job and career (Williams, 1965). West (2000) argued that one essential precondition of innovative behavior is a high level of job security, and West, Shackleton, Hardy, and Dawson (2004) indeed found a positive relationship between job security and innovation. We therefore theorize that when perceived job security is high, people are more likely to take risk and engage in innovative behavior.

Hypothesis 5: Perceived job security mediates the effects of PJ climate on innovative behavior, after controlling for the influence of individual PJ perception.

Methods

Procedures and participants

We issued a “call for participation” both in printed leaflets and bulletin board system notes to invite volunteers who were work unit supervisors among part-time MBA students and alumni of a university in Shanghai, China, to participate in our study. A work unit was defined as either a permanent group or a semi-permanent group to which employees were assigned, with members working together during the same shift under a common supervisor (George, 1990; Liao & Rupp, 2005). To avoid possible instability of the data, a work unit was required to comprise more than five persons (Bryk & Raudenbush, 1992). The supervisors were asked to distribute the employee questionnaire to all members of their work unit and to evaluate the behaviors of each member using a supervisor questionnaire. The survey process was anonymous, and each participant put his or her completed questionnaire in a sealed envelope before submission. The questionnaires for supervisors and employees were matched by ID numbers assigned to each employee in advance. The supervisors received a small monetary reward for each matched (employee–supervisor) set of completed questionnaires. The employee questionnaire included the independent and mediating variables in the model. All the dependent variables were measured in the supervisor questionnaire.

A total of 364 employees from 63 work units from a variety of organizations participated in the study. The majority were from manufacturing (19.1 percent), education and training services (15.9 percent), services

(15.9 percent), IT (9.5 percent), and trade (7.9 percent). Among the organizations, 52.4 percent were state-owned, 30.2 percent private, 12.7 percent international joint ventures, and 4.8 percent foreign-invested. Company size was measured by the number of employees: more than 1000 employees (12.7 percent), 501–1000 (15.9 percent), 201–500 (27.0 percent), 101–200 (4.8 percent), 51–100 (9.5 percent), and fewer than 51 (30.2 percent). With regard to the function of the work units, 4.8 percent were related to production, 3.2 percent human resources, 15.9 percent finance, 22.2 percent R&D, 12.7 percent administration, 23.8 percent support and services, and 17.5 percent marketing and sales.

Among participants (i.e., members within work units), 42.1 percent were male and 57.9 percent were female. The majority were general staff (84.7 percent), followed by supervisors (11.9 percent), department managers (2.3 percent), and senior managers (1.1 percent). With regard to age, most were between 20 and 39 years old: 55.7 percent were 20–29 years old, 30.9 percent were 30–39 years old, 2.8 percent were younger than 19 years, 7.5 percent were between 40 and 49 years old, and 3.1 percent were older than 50 years. A very small percentage (0.6 percent) of participants had finished only primary school, 13.2 percent had finished middle school, and the others had completed university education or above (80.3 percent university and 5.9 percent postgraduate). The distribution of organizational tenure was as follows: <1 year, 23.9 percent; 1–3 years, 40.8 percent; 4–6 years, 18.3 percent; 7–8 years, 3.9 percent; 9–10 years, 3.6 percent; and ≥11 years, 9.4 percent. The distribution of work unit tenure was as follows: <1 year, 29.0 percent; 1–3 years, 42.1 percent; 4–6 years, 15.3 percent; 7–8 years, 4.2 percent; 9–10 years, 1.7 percent; and ≥11 years, 7.8 percent.

Measures

The measures, except for innovative behavior and perceived job security, were all assessed using 7-point Likert scales (1 (*strongly disagree*) to 7 (*strongly agree*)).

Procedural justice climate

We used the four-item scale of Mossholder et al. (1998), which focuses on the overall evaluation of procedural fairness in four major domains: performance appraisal, raises, benefits, and working conditions. A sample item is “Overall, the procedures and policies used by your organization to handle performance appraisal in your work unit are fair.” The four items were averaged to form the scale score, and Cronbach’s α was satisfactory (.86). Members’ individual scores were averaged within each unit to form the justice climate score for the unit. To justify the aggregation, we assessed within-group agreement and between-group variance. We obtained a median r_{wg} value of .84, and $ICC(1)$ and $ICC(2)$ were 0.30 and 0.70, respectively. The $ICC(1)$ value of 0.30 is comparable with that of some widely cited studies in this area (e.g., Liao & Rupp, 2005; Mossholder et al., 1998) but higher than some others (e.g., Dietz, Robinson, Folger, Baron, & Schulz, 2003). The higher value of $ICC(1)$ may be due to the following: (i) high agreement of individual PJ perception within the groups, as reflected by the high median r_{wg} value; (ii) large variance between groups because the groups were from different organizations; and (iii) relatively small group size (an average of 5.8; Bliese, 2000).

Compliance

We adopted Tyler and Blader’s (2001) eight-item compliance scale. Sample items are “complying with work rules,” “following policies,” and “carefully carrying out instructions.” Cronbach’s α for this scale was .88.

Work unit-oriented OCB, organization-oriented OCB, and sportsmanship

To measure work unit-oriented OCB, we adopted the five-item altruism scale of Podsakoff et al. (1990), with a work unit as the focus. A sample item is “helps others in the work unit who have heavy workloads.” Cronbach’s α for this scale was .89. Organization-oriented OCB was measured using the Chinese version of a four-item subscale of the

scale of Farh, Earley, and Lin (1997), which specifically focuses on the organization. Sample items include “willing to stand up to protect the reputation of the company” and “makes constructive suggestions that can improve the operation of the company.” Cronbach’s α for this scale was .84. We used the sportsmanship scale of Podsakoff et al. (1990) to measure sportsmanship. The scale consists of five items, including “consumes a lot of time complaining about trivial matters” (reversed) and “always focuses on what’s wrong, rather than the positive side” (reversed). The scale had satisfactory internal consistence (α = .89). Confirmatory factor analysis confirmed the distinctiveness of work unit-oriented OCB, organization-oriented OCB, and OCB without a specific focus (i.e., sportsmanship): $\chi^2 = 316.08$, $df = 74$, $CFI = 0.92$, incremental fit index (IFI) = 0.92, and $RMSEA = 0.095$. We also compared the model fit of the three-factor model with other alternative models (one-factor and two-factor models) and found that only the three-factor model yielded an acceptable model fit, supporting the distinctiveness of the three types of OCB.

Innovative behavior

Innovative behavior of work unit members was assessed using Scott and Bruce’s (1994) six-item scale, which covers three stages of innovation: idea generation, promotion, and realization (Janssen, 2001). Sample items include “searches out new technologies, processes, techniques, and/or product ideas” and “generates creative ideas.” Supervisors evaluated the extent of innovative behavior demonstrated by work unit members using a 9-point scale (1 (*not at all*) to 9 (*to an exceptional degree*)). The reliability of the scale was 0.94.

Work unit identification and organizational identification

Group identification is a multidimensional construct (Ashmore, Deaux, & McLaughlin-Volpe, 2004; Ellemers et al., 1999; Jackson, 2002). We focused on the evaluative and emotional components, which are typically operationalized as collective self-esteem and affective commitment, respectively (Ellemers et al., 1999; Jackson, 2002). To measure collective self-esteem, we adopted four items from Ellemers et al. (1999). We differentiated collective self-esteem with regard to an organization and a work unit. The sample items for collective self-esteem with reference to the organization include “I think my organization has little to be proud of” (reversed) and “I feel good about my organization.” To measure collective self-esteem with reference to a work unit, we replaced “organization” with “work unit” in the items. The two scales both showed satisfactory reliability, with Cronbach’s α s of .81 and .78, respectively.

We used Meyer and Allen’s (1997) six-item affective commitment scale, with one of the two targets (organization or work unit) specified in the items. A sample item is “I really feel as if this organization’s (work unit’s) problems are my own.” Cronbach’s α s for affective commitment to the organization and to a work unit were .86 and .83, respectively.

We combined the two constructs to form an identification scale because prior research has shown that affective and evaluative components of identification are conceptually related and can be combined to represent an important facet of identification (e.g., Stoner, Perrewé, & Hofacker, 2011). In our study, their correlations were very high (.71 for work unit-oriented esteem and commitment, and .75 for organization-oriented esteem and commitment). Cronbach’s α s for work unit identification and organizational identification were .89 and .91, respectively.

We used confirmatory factor analysis to test the construct validity of the constructs. The four first-order factors (unit-oriented esteem and commitment, and organization-oriented esteem and commitment) were allowed to load on their intended second-order factor (work unit identification or organizational identification). The residuals of the same items for different targets were allowed to covary. The model showed an acceptable fit ($\chi^2 = 528.58$, $df = 155$, $CFI = 0.90$, $IFI = 0.90$, $RMSEA = 0.08$). All of the items had significant and adequate loadings on their intended factors. We compared this model with an alternative model with the four factors loading on a single second-order factor. This model yielded a poorer model fit, indicating that the two second-order factors (work unit identification and organizational identification) were conceptually distinct.

In another alternative model, the four factors were allowed to freely correlate. The χ^2 value of this model was a bit lower ($\chi^2 = 521.05$, $df = 154$), but other fit indexes were similar to those of the original model. We prefer the original model because of the aforementioned theoretical reasons, and also because the four variables were highly correlated (most bivariate correlation coefficients were above .70). The use of a composite scale can avoid the multicollinearity problem in the regression analysis.

Perceived respect for the work unit

This construct was measured by a three-item scale adapted from Tyler et al. (1996). Items are “most members of our organization respect our work unit,” “most members of our organization think highly of our work unit’s accomplishment,” and “most members of our organization approve of how our department works.” Cronbach’s α of this scale was .84.

Perceived organizational integrity (integrity)

We adopted four items concerning organizational integrity from the six-item scale of trust in management developed by Chen et al. (2004). Two items, such as “trust top managers at my company,” were excluded because they were too general. The four items include “confidence in the integrity of top managers,” “top managers have a strong sense of integrity,” “top managers’ actions are inconsistent with their words” (reversed), and “top managers’ behaviors are guided by correct principles.” Cronbach’s α for this scale was .84.

Perceived organizational benevolence (benevolence)

We used Mayer and Davis’s (1999) trust scale to measure perceived organizational benevolence. The scale is composed of five items, including “top management is very concerned about employees’ welfare” and “employees’ needs and desires are very important to top management.” The scale showed adequate internal consistency ($\alpha = .87$).

Perceived job security

Following Davy et al. (1997), we used the extent to which people are certain (or uncertain) about their future career, opportunities for promotion and advancement, and continuous employment in the organization to operationalize perceived job security. A Likert-type scale ranging from 1 (*very uncertain*) to 7 (*very certain*) was used, and the scale had a Cronbach α of .79.

Control variables

To examine how PJ climate influences the mediators and outcome variables beyond individual PJ perception, *individual-level PJ perception* was controlled for. This variable was measured using the seven-item scale developed by Colquitt (2001), with the respondents in the role of justice recipients. Sample items included “I am able to express my views and feelings during the procedures that the organization uses to make decisions concerning me” and “those procedures that the organization uses to make decisions concerning me are applied consistently.” Cronbach’s α of the scale was .86. In addition, some individual demographic characteristics (e.g., gender, age, tenure, and education level; e.g., Caldwell, Liu, Fedor, & Herold, 2009; Lee & Farh, 1999; Sweeney & McFarlin, 1997) and organization-level factors, such as organization type (e.g., state-owned enterprises, joint ventures, wholly foreign owned enterprises, or private enterprises) and organization size (e.g., Chen, Choi, & Chi, 2002; Indik, 1963; Schminke, Ambrose, & Cropanzano, 2000) have been found to influence justice perceptions and justice-relevant attitudes and behaviors. They were also controlled for in our analysis.

Results

Descriptive analysis

The means, standardized deviations, and intercorrelations of the focal variables at the individual level are presented in Table 1. Although PJ climate is a group-level construct, its correlations with individual-level variables are also shown.

Hypothesis testing

Procedural justice climate is at the group level, whereas the other variables are at the individual level. We used HLM 6.06 (Scientific Software International, Inc, Lincolnwood, IL) to conduct the cross-level analysis. In each of the mediation mechanisms, two mediators are involved, and we cannot adopt an integrated test of mediation (Bauer, Preacher, & Karen, 2006), which was set up for one mediator only. We therefore followed the procedures recommended by Krull and MacKinnon (1999) and Mathieu and Taylor (2007) to test the cross-level mediating relationships, with the use of the Sobel test. Note that the individual-level control variables (individual-level PJ perception, gender, age, educational level, work unit tenure, and organizational tenure) and organization-level control variables, including type of organization and organization size, were included in all models in the subsequent analyses and that the predictors in all models were grand-mean-centered. For directional predictions, one-tailed tests were used.

We first analyzed the cross-level relationship between PJ climate and work unit identification through perceived respect for the work unit (Table 2). PJ climate and perceived respect for the work unit were significantly related ($\gamma = 0.38$, $SE = 0.10$, $p < .001$), and both were significantly related to work unit identification (for PJ climate, $\gamma = 0.22$, $SE = 0.10$, $p < .05$; for perceived respect for the work unit, $\beta = .19$, $SE = 0.05$, $p < .001$). When work unit identification was simultaneously regressed on PJ climate and perceived respect for the work unit, the effect of PJ climate on work unit identification became marginally significant ($\gamma = 0.16$, $SE = 0.10$, $p < .10$), whereas that of perceived respect for the work unit remained the same ($\beta = .17$, $SE = 0.05$, $p < .001$), implying that perceived respect for the work unit played a mediating role in the relationship between PJ climate and work unit identification. The result of the Sobel test supported an indirect relationship between PJ climate and identification via perceived respect for the work unit ($z = 2.73$, $p < .01$). Therefore, Hypotheses 1a to 1c were supported.

Hypotheses 2a to 3b, which were concerned with the relationships among PJ climate, integrity, benevolence, organizational identification, and perceived job security, were also supported (Table 2). PJ climate had significant effects on benevolence and integrity (for benevolence, $\gamma = 0.35$, $SE = 0.08$, $p < .001$; for integrity, $\gamma = 0.42$, $SE = 0.08$, $p < .001$), both of which were in turn significantly related to organizational identification (for benevolence, $\beta = .23$, $SE = 0.06$, $p < .001$; for integrity, $\beta = .27$, $SE = 0.06$, $p < .001$) and perceived job security (for benevolence, $\beta = .14$, $SE = 0.08$, $p < .05$; for integrity, $\beta = .24$, $SE = 0.09$, $p < .01$). The effect of PJ climate on organizational identification was significant ($\gamma = 0.37$, $SE = 0.09$, $p < .001$), but became smaller ($\gamma = 0.19$, $SE = 0.08$, $p < .05$) when benevolence and integrity were added to the equation, whereas the effects of the two mediators were still significant (for benevolence, $\beta = .22$, $SE = 0.06$, $p < .001$; for integrity, $\beta = .25$, $SE = 0.06$, $p < .001$). The results of the Sobel tests supported the indirect effect of PJ climate on organizational identification through benevolence and integrity (PJ climate \rightarrow benevolence \rightarrow organizational identification, $z = 2.95$, $p < .01$; PJ climate \rightarrow integrity \rightarrow organizational identification, $z = 3.34$, $p < .001$). In a similar vein, the effect of PJ climate on perceived job security was significant ($\gamma = 0.22$, $SE = 0.12$, $p < .05$) but became nonsignificant when benevolence and integrity were added to the equation. The results of the Sobel tests supported the indirect effect of PJ climate on perceived job security through the two mediators, especially integrity (PJ climate \rightarrow benevolence \rightarrow perceived job security, $z = 1.49$, $p < .10$; PJ climate \rightarrow integrity \rightarrow perceived job security, $z = 2.30$, $p < .05$).

To sum up, the core of our theorizing was supported. PJ climate was positively related to perceived respect for the work unit, which was in turn related to identification with the work unit. PJ climate was positively related to organizational benevolence and integrity, which were in turn related to both organizational identification and perceived job security.

Table 1. Means and correlations of variables.

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1. PJ climate	4.90	1.1	(.86)	—	—	—	—	—	—	—	—	—	—	—	—
2. Individual-level PJ	4.63	0.94	.56**	(.86)	—	—	—	—	—	—	—	—	—	—	—
3. Respect for the work unit	5.32	1.02	.54**	.37**	(.84)	—	—	—	—	—	—	—	—	—	—
4. Work unit identification	5.26	0.97	.49**	.43**	.35**	(.89)	—	—	—	—	—	—	—	—	—
5. Benevolence	4.69	1.17	.64**	.70**	.41**	.51**	(.87)	—	—	—	—	—	—	—	—
6. Integrity	4.78	1.15	.63**	.69**	.39**	.53**	.77**	(.84)	—	—	—	—	—	—	—
7. Organizational identification	5.05	1.02	.60**	.54**	.38**	.74**	.64**	.65**	(.91)	—	—	—	—	—	—
8. Perceived job security	4.35	1.29	.49**	.43**	.21**	.31**	.41**	.46**	.42**	(.79)	—	—	—	—	—
9. Work unit-oriented OCB	5.27	0.97	.16**	.11*	.20**	.20**	.14**	.14**	.13*	.05	(.89)	—	—	—	—
10. Organization-oriented OCB	4.92	0.93	.23**	.19**	.25**	.23**	.26**	.25**	.24**	.14**	.61**	(.84)	—	—	—
11. Sportsmanship	5.57	0.99	.29**	.24**	.16**	.37**	.28**	.30**	.28**	.15**	.42**	.38**	(.89)	—	—
12. Innovative behavior	5.21	1.82	.18**	.09	.14**	.14**	.12*	.16**	.13*	.13*	.53**	.65**	.27**	(.94)	—
13. Compliance	5.67	0.79	.19**	.19**	.24**	.32**	.22**	.20**	.23**	.32	.45**	.32**	.51**	.21**	(.88)

Note: Coefficient *as* are given on the diagonal. PJ, procedural justice; OCB, organizational citizenship behavior. * $p < .05$; ** $p < .01$, two tailed.

Table 2. Relationships between procedural justice climate and mediators.

	Dependent variable										
	Collective respect	Work unit identification			Benevolence	Integrity	Organizational identification		Perceived job security		
Intercept	5.36	5.28	5.29	5.29	4.70	4.79	5.06	5.07	5.06	4.33	4.33
Individual demographic controls	—	—	—	—	—	—	—	—	—	—	—
Organization-level controls	—	—	—	—	—	—	—	—	—	—	—
Individual-level PJ	0.30***	0.37***	0.40***	0.35***	0.74***	0.69***	0.12*	0.45***	0.11*	0.26**	0.25***
PJ climate	0.38***	0.19***	0.22*	0.16 ⁺	0.35***	0.42***	0.17***	0.37***	0.19*	0.22*	0.08
Respect for work unit											
Benevolence											
Integrity											
σ^2	0.72	0.52	0.54	0.52	0.57	0.55	0.23***	0.27***	0.22***	0.14*	0.13 ⁺
τ	0.06	0.15	0.13	0.12	0.02	0.04	0.43	0.51	0.43	1.00	0.23***
$R^2_{\text{within-group}}$	.10	.23	.20	.23	.42	.38	0.07	0.08	0.06	0.18	1.03
$R^2_{\text{between-group}}$	.69	.42	.50	.54	.95	.92	.36	.24	.36	.24	.22
R^2_{total}	.21	.28	.28	.31	.58	.57	.82	.79	.84	.54	.46
							.53	.44	.54	.31	.29

Note: Individual- and organization-level control variables were included, but their results are not presented in the table because of space constraint. PJ, procedural justice. ⁺ $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. All the tests are one tailed.

Table 3. The effects of PJ climate on dependent variables and the relative importance of different mediators.

	Dependent variables									
	Work unit-oriented OCB		Organization-oriented OCB		Sportsmanship		Compliance		Innovative behavior	
Intercept	5.30	5.30	4.94	4.94	5.62	5.62	5.68	5.68	5.23	5.23
Individual demographic controls	—	—	—	—	—	—	—	—	—	—
Organization-level controls	—	—	—	—	—	—	—	—	—	—
Individual-level PJ	0.04	-0.06	0.09*	-0.04	0.21***	0.09 ⁺	0.08*	0.02	0.14 ⁺	-0.10
Work unit identification		0.20**		0.13*		0.26***		0.15**		0.24*
Organizational identification		-0.00		0.12*		-0.02		0.01		0.14
Perceived job security		0.05		0.04		0.04		0.01		0.14**
PJ climate	0.31**	0.26*	0.22*	0.13	0.18 ⁺	0.12	0.20*	0.16 ⁺	0.20	0.07
σ^2	0.56	0.53	0.55	0.50	0.59	0.56	0.31	0.30	2.13	1.99
τ	0.29	0.31	0.19	0.22	0.30	0.27	0.26	0.24	0.92	1.06
$R^2_{\text{within-group}}$	.06	.11	.08	.16	.05	.10	.03	.06	.03	.09
$R^2_{\text{between-group}}$	.19	.13	.47	.38	.24	.32	.17	.23	.19	.07
R^2_{total}	.11	.12	.22	.25	.12	.18	.10	.14	.08	.08

Note: Individual- and organization-level control variables were included in all the models, but their results are not presented in the table because of space constraint. PJ, procedural justice.

⁺ $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. All the tests are one tailed.

To test the relationships of identification and perceived job security with different outcomes as predicted in Hypotheses 4a to 5, we first examined the main effects of PJ climate on all of the dependent variables. As shown in Table 3, PJ climate was significantly related to work unit-oriented OCB ($\gamma=0.31$, $SE=0.12$, $p<.01$), organization-oriented OCB ($\gamma=0.22$, $SE=0.11$, $p<.05$), and compliance ($\gamma=0.20$, $SE=0.11$, $p<.05$). Although the total relationship of PJ climate with sportsmanship ($\gamma=0.18$, $SE=0.12$, $p<.10$) only approached significance and that with innovative behavior was not significant, we still tested PJ climate's indirect effects through perceived job security and identification because the assumption of a significant total relationship between the predictor and the outcome variable was not necessary for such tests (Mathieu & Taylor, 2006, 2007; Preacher & Hayes, 2004).

We added the two forms of identification and perceived job security to the regression models and found that the effects of PJ climate on organization-oriented OCB, sportsmanship, compliance, and innovative behavior all became nonsignificant and that its effect on work unit-oriented OCB was also reduced, although still significant ($\gamma=0.26$, $SE=0.13$, $p<.05$). Table 3 summarizes the results for the mediating roles of identification and perceived job security. The predictions about the correspondence between identification and outcomes stated in Hypotheses 4a to 4c were generally supported. For work unit-oriented OCB, only the effect of work unit identification was significant ($\beta=.20$, $SE=0.07$, $p<.01$). We also compared the models without and with the constraint of setting the effects of work unit identification and organizational identification as equivalent. Consistent with the previous results, the model with the constraint yielded a poorer fit to the data than the model without the constraint: deviance = 835.21 (without the constraint) versus 837.88 (with the constraint), $\Delta\chi^2=2.67$, $df=1$, $p<.10$.

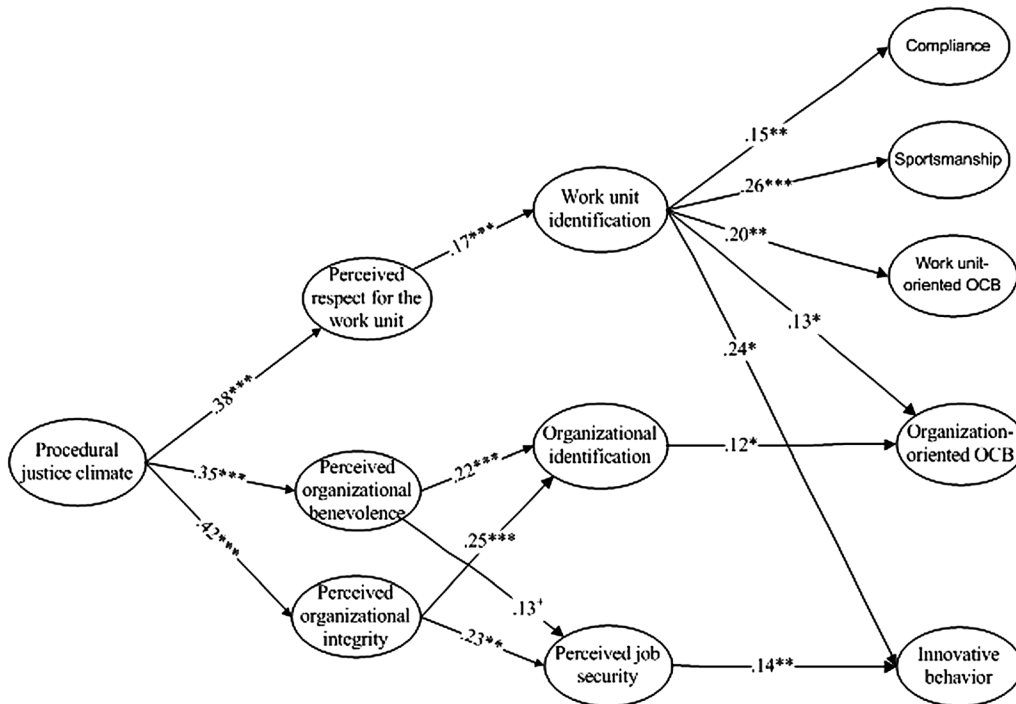
However, for organization-oriented OCB, both forms of identification showed significant effects (work unit identification, $\beta=.13$, $SE=0.07$, $p<.05$; organizational identification, $\beta=.12$, $SE=0.07$, $p<.05$). Nor did the results for model comparison show a significant difference in model fit between the models without and with the constraint of setting the effects of work unit identification and organizational identification as equivalent ($\Delta\chi^2=0.001$, $df=1$, ns). The unexpected effect of work unit identification on organization-oriented OCB is explored in the Discussion section.

With regard to cooperative behaviors without a specific focus (i.e., sportsmanship and compliance), the effects of work unit identification were significant (for sportsmanship, $\beta=.26$, $SE=0.07$, $p<.001$; for compliance, $\beta=.15$, $SE=0.05$, $p<.01$), whereas those of organizational identification were not. For sportsmanship, after constraining the effects of work unit identification and organizational identification to be equal, the model fit became significantly poorer, deviance = 850.82 (for the model with the constraint) versus 846.16 (for the model without the constraint), $\Delta\chi^2=4.66$, $df=1$, $p<.05$. However, the model comparison results for compliance showed that the difference in model fit between the two models with and without the constraint did not reach significance: $\Delta\chi^2=2.07$, $df=1$, ns.

Hypothesis 4d is about the stronger mediating role of social identification than that of job security in mediating the influence of PJ climate on cooperative behaviors. As expected, for cooperative behaviors including OCB and compliance, only the effect of identification was significant, whereas that of perceived job security was not. We added the constraint of the equivalence between the effects of identification (work unit identification for work unit-oriented OCB, sportsmanship, and compliance, and organizational identification for organization-oriented OCB) and those of job security to the relevant models. Results showed that the models with the constraint generally yielded poorer model fit than the models without the constraint: for work unit-oriented OCB, deviance = 838.54 versus 835.21 (for the models with and without the constraint, respectively), $\Delta\chi^2=3.33$, $df=1$, $p=.07$; for sportsmanship, deviance = 852.62 versus 846.16 (for the models with and without the constraint, respectively), $\Delta\chi^2=6.46$, $df=1$, $p<.05$; for compliance, deviance = 665.93 versus 661.38 (for the models with and without the constraint, respectively), $\Delta\chi^2=4.55$, $df=1$, $p<.05$. The exception was organization-oriented OCB, as adding the constrain did not result in a poorer model fit, $\Delta\chi^2=0.82$, $df=1$, ns.

The results of the Sobel tests also supported the hypothesized indirect relationships: PJ climate \rightarrow work unit identification \rightarrow work unit-oriented OCB, $z=1.82$, $p<.05$; PJ climate \rightarrow organizational identification \rightarrow organization-oriented OCB, $z=1.73$, $p<.05$; and PJ climate \rightarrow work unit identification \rightarrow sportsmanship, $z=1.95$, $p<.05$; and PJ climate \rightarrow work unit identification \rightarrow compliance, $z=1.77$, $p<.05$.

Hypothesis 5 predicts that perceived job security mediates the relationship between PJ climate and innovative behavior. As expected, perceived job security was significantly related to innovative behavior ($\gamma=0.14$, $SE=0.05$,



Note: Control variables are not shown. ' $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$, one-tailed.

Figure 2. Results for the model proposed

$p < .01$). However, the effect of work unit identification was also significant ($\gamma = 0.24$, $SE = 0.13$, $p < .05$). After setting the effects of job security and work unit identification as equivalent, the model fit did not become poorer, $\Delta\chi^2 = 0.39$, $df = 1$, ns. This unexpected finding is explored in the Discussion section. The Sobel test results supported an indirect relationship between PJ climate and innovative behavior via perceived job security ($z = 1.66$, $p < .05$). The key results are presented in Figure 2.

Discussion

The present study explored the psychological mechanisms through which PJ climate influenced individual outcome variables independent of individual-level justice perception. Our model emphasizes two types of signals that PJ climate conveys to employees: the status of the recipient entity (i.e., perceived respect for the work unit) and the morality of the source entity (i.e., perceived organizational benevolence and integrity). Our results revealed that, after controlling for individual-level PJ perception, PJ climate was related to work unit identification through perceived respect for the work unit, and to organizational identification and perceived job security through perceived organizational benevolence and integrity.

In addition, two forms of identification and perceived job security differentially mediated the impact of PJ climate on different types of outcome variables. Work-unit identification mediated the effect of PJ climate on the work unit-oriented outcome (i.e., work unit-oriented OCB), whereas organizational identification mediated the effect of PJ climate on the organization-oriented outcome (i.e., organization-oriented OCB). With regard to the cooperative outcomes without a specific focus (sportsmanship and compliance), work unit identification was a more important mediator of the effects of PJ climate than organizational identification, supporting the argument based on

psychological distance and relative potency (Lewin, 1951). An unexpected finding is that work unit identification was related to organization-oriented OCB. Perhaps work unit identification spills over to the concern for the well-being of the entire organization, thus motivating helping behavior directed at the organization. This finding needs to be replicated and the dynamics explored in future research.

Innovative behavior as a consequence of PJ climate has not been examined before, and our results confirmed the indirect effect of PJ climate on this type of risk-taking behavior through perceived job security. Unexpectedly, work unit identification was also related to innovative behavior. Innovative behavior can benefit both a work unit and the organization, which may explain why identification was an antecedent of this type of behavior.

Theoretical contributions and implications

The findings provide support for the proposed model and have broad theoretical implications for justice, organizational climate, social identity, and job security.

Implications for the justice literature

Answering the questions of why and how justice perceptions influence individual attitudes and behaviors is essential for advancing justice theories. Although justice theories at the individual level are well developed, they are not formulated to account for the effects of PJ climate. The present research has addressed this important theoretical gap. Extending individual-level theories, including social identity theory (Hogg & Abrams, 1988; Tajfel & Turner, 1979) and the group-value and relational models of justice (e.g., Tyler & Lind, 1992), to the group level, we argue that PJ climate not only contributes to identification with the source entity of justice (the organization) through perceived integrity and benevolence but also influences identification with the recipient entity of justice (a work unit) through perceived respect for the work unit. The two types of identification in turn shape work unit- and organization-oriented outcomes correspondingly. We use the “source entity effect” to represent the influence of perceived justice on how people react to the source entity of justice—the organization—and the “recipient entity effect” to represent the effect of perceived justice on how people react to the recipient entity of justice—a work unit. In fact, the recipient entity effect has not received much attention, and our findings suggest that it is a promising topic for future research on justice.

Our research also showed that PJ climate was related to perceived job security through perceived organizational benevolence and integrity, which in turn was related to work behaviors. These findings confirm a crucial function of PJ climate, namely providing people with a way to manage uncertainty, and provide direct support for fairness heuristic theory (Van den Bos, 2001a) and the uncertainty management model of justice (Van den Bos & Lind, 2002). Previous research on fairness heuristic theory and the uncertainty management model showed that procedural justice was operative only when uncertainty existed or was made salient (Van den Bos, 2001b; Van den Bos, Wilke, & Lind, 1998). Extending this line of work, our research has confirmed the main effect of PJ climate on employees’ sense of uncertainty with the construct of perceived job security. This aspect of the research also introduces an increasingly important variable in a competitive economic environment, namely perceived job security, to the justice area, and confirms its important intermediary role in transmitting the influence of PJ climate. Many interesting research questions can be explored in this new line of research.

Virtually all the research on PJ climate has focused on three individual outcome variables: organizational commitment, job satisfaction, and helping behavior (or OCB). The present research broadens the range of the outcome variables. It not only differentiates among work unit-oriented outcomes, organization-oriented outcomes, and general outcomes without a specific focus but also includes different types of cooperative behavior—compliance and OCB—and differentiates them from a relatively new type of dependent variable in justice research—risk-taking behavior (innovative behavior in our research). Our research has provided a theoretical framework to explore the diverse effects of PJ climate. An interesting new research direction would be to explore the boundary conditions under which the three examined mediators operate.

Implications for the literature on organizational climate

The processes by which organizational climate affects individual attitudes and behaviors have seldom been examined, but a better understanding of these processes is important for theory development. It is easy to understand how a specific climate associated with a strategic goal (such as climate for innovation or for service) drives employees to behave in a way consistent with the climate (Smith-Crowe, Burke, & Landis, 2003): People exhibit the specific behaviors prescribed by the climate to achieve an adaptive environmental fit (Burke, Borucki, & Hurley, 1992). In contrast, the processes underlying the influence of molar climates (e.g., organizational justice climate, which predicts a broad range of outcomes) on individual behaviors remain unexplored. Our theorizing and findings suggest that the underlying processes are complex but tractable. PJ climate as one type of molar climate influences individual attitudes and behaviors through two types of identification and perceived job security. However, the mediating mechanisms proposed are likely to be specific to PJ climate, and future research needs to explore other processes for different molar climates.

Implications for the social identity literature

This research provides at least three theoretical implications for the literature on social identity. First, the findings raise the issue of dual identification with superordinate and subordinate groups. This issue has been discussed in the context of ethnic diversity, and the debate focuses on whether identification with a superordinate group (e.g., nation) and with a subgroup (e.g., an ethnic group) are compatible, conflicting, or independent. Some scholars have argued for a zero-sum relationship, such that increased identification with one group necessarily comes at the cost of decreased identification with the other (Turner et al., 1987). Others have proposed and tested the potential for dual forms of identification and their relative independence (e.g., Huo, 2003; LaFromboise, Coleman, & Gerton, 1993).

We examined dual identification in an organizational setting. Consistent with the results of Olkkonen and Lipponen (2006), the current findings demonstrated that employees differentiated between identification with the organization and identification with a work unit and that the two forms of identification predicted different outcomes. In addition, the results suggest that the two forms of identification are compatible and that PJ climate can contribute to both. Future research could investigate whether the relationship between identification with a superordinate group and with a subgroup plays out differently across different contexts.

Second, our results suggest that the influence of social identification is determined by the psychological distance between individuals and the social group with which they identify (Lewin, 1951). Specifically, identification with the work unit was predictive of work unit-oriented outcomes, whereas organizational identification was predictive of organization-oriented outcomes. With regard to general cooperative behavior without a specific focus, identification with the work unit played a greater role than organizational identification. Our findings highlight the need to consider the social distance between an individual and the social category under consideration and to differentiate outcome variables when gauging the effects of different types of identification.

In our original predictions, we underestimated the range of the effects of work-unit identification, which was found to extend to organization-oriented OCB and innovative behavior. These unexpected findings suggest that because work units are the immediate social group to which an employee belongs, and have a shorter psychological distance than larger units, such as a department or a division, its effects may be wide ranging and spill over to domains of behaviors that are conceptually distant from work-unit identification. Thus, an interesting research direction is to explore the spillover effects of work unit identification, namely why identification with this social category can influence outcome variables associated with broader social categories.

Finally, we focus on the evaluative and emotional components of identification in the present research, as they are closely tied to our theorizing. However, self-categorization, a cognitive component of identification, may play an important role in influencing the attention people direct at collective experiences (Markovsky, 1985). This cognitive component of identification may show some intricate relationships with PJ climate and is worthy of exploration in future research.

Implications for the literature on job security

In an era marked by volatile economic conditions, it is necessary to examine the antecedents of job insecurity even when there is no immediate organization-wide threat (Ashford et al., 1989; Greenhalgh & Rosenblatt, 1984). Previous research on its antecedents has considered personal characteristics (e.g., locus of control and organizational tenure) and job characteristics (e.g., role conflict and temporary vs. permanent employees; Ashford et al., 1989; Ito & Brotheridge, 2007; Probst, 2002) but not organizational variables. The current work fills this gap and showed that PJ climate significantly affected perceived job security in the absence of significant organizational change, opening a new line of enquiry for job security research.

With regard to the consequences of perceived job security, previous research has focused on affective, attitudinal, and health-related outcomes but seldom explored behavioral consequences. The current research broadens the range of the outcome variables to include a risk-taking behavior, innovative behavior. Future studies should explore the diverse influence of perceived job security and its underlying mechanisms.

Practical implications

Our research shows that identification and perceived job security played different roles in mediating the influence of PJ climate on diverse outcome variables. The findings have several managerial implications. First, not only individual justice perception but also PJ climate affects individual work outcomes. Managers need to ensure fair treatment of groups to avoid negative consequences and reactions from employees.

Second, managers should recognize the importance of the two types of identification and perceived job security in shaping individual attitudes and behaviors. They need to find ways to encourage employees to identify with both their work units and the organization as a whole and to reduce their level of job insecurity. At the work unit level, managers should try to increase the opportunities for positive interaction among group members to improve group cohesiveness. Managers should also enhance the status of work units in the organization, such as by providing due recognition for their achievements, so as to improve identification with work units. An organization can promote organizational identification and job security by showing benevolence and integrity, such as by taking concrete actions to show care and concern for the interest and well-being of employees and following ethical and moral principles in decision making.

Finally, the two types of identification and perceived job security had different relationships with different outcome variables. Managers who aim at a specific outcome need to select the most effective strategy and avoid a “one size fits all” approach. For example, if managers want to encourage work unit-oriented OCB, then concrete steps to improve identification with the work unit have to be taken. If the target is innovative behavior, managerial actions to boost perceived job security, such as making promotion opportunities widely known among employees, are needed.

Limitations and conclusion

Although our findings have important theoretical and practical implications, a number of limitations need to be addressed in future research. First, the independent variable, PJ climate, and the mediators were measured from the same source, raising concerns about the potential for common method bias. Fortunately, the operationalization of PJ climate involved aggregating individual perceptions to the unit level, which should mitigate perception–perception inflation (Liao & Rupp, 2005). Also, a differentiated pattern of mediation effects for the mediators was found, which is difficult to explain by common method variance. Second, the data presented were cross-sectional, making it impossible to assess the causal direction of the relationships. Longitudinal research should be conducted to examine the causality implied in our theoretical framework. Third, the operationalization of PJ climate in our study emphasizes the treatment of a group as a whole with the organization as the source of justice. We note that

some other studies (e.g., Naumann & Bennett, 2000) used a different operationalization of PJ climate, which is based on the average treatment received by members of a group. We think that both our and their operational definitions of PJ climate are consistent with its construct definition, and future research should evaluate whether these two operational definitions have important implications. A related issue is that supervisors sometimes may develop and implement their own decision-making procedures (Lavelle et al., 2007), which may shape the PJ climate of their groups. Although not the focus of the present research, supervisor-initiated PJ climate and the underlying mechanisms should be examined in future research. Fourth, following a stream of research in the literature (e.g., Mossholder et al., 1998), we used different measures for PJ climate and individual PJ perception. It is interesting to consider a different approach and use “parallel” measures to tap justice at different levels, that is, the use of the same items, but with different referents, for different levels. This line of enquiry will reveal whether this measurement issue may affect the substantial findings reported. This issue is important as Li and Cropanzano (2009, p. 570) concluded that whether justice constructs are equivalent across levels “has never been fully addressed in cross-level justice research and should be subjected to additional inquiry.” Fifth, cautiousness should be taken with regard to the fit of the measurement model of identification. A *CFI* of 0.90 is marginal to ensure good model fit, although the marginal *CFI* in our case may be deflated by sample size, model complexity, and the number of variables (e.g., Kenny & McCoach, 2003; Kim, 2005). It is instructive to further validate the measurement in the future. Sixth, the research only examined individual level mediators, but it is entirely possible that the effects of PJ climate may also be transmitted by group-level mediators. The exploration of this possibility requires very different theories and empirical findings, but it is a promising direction for future research. In addition, our research does not explore the reasons why people under the same PJ climate may react differently, which would call for a very different research design to probe the dynamics involved. For instance, future studies may examine whether some individual differences, such as trust propensity and risk aversion (Colquitt, Scott, Judge, & Shaw, 2006), which can influence individual sensitivity to justice, may moderate the effects of PJ climate. Finally, the study was conducted in China. Although our theorizing is not tied to any cultural processes, and Leung (2005) concluded after a comprehensive review that basic justice processes are robust across cultural boundaries, it is imperative that our findings be replicated in other cultural contexts.

In conclusion, this paper proposes a theoretical model that integrates and extends relevant extant theories to account for the effects of PJ climate. The findings supported the proposed model and pointed to some novel and important research topics related to the dynamics of PJ climate.

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