

**What It Takes to Get Proactive:**

**An Integrative Multi-level Model of the Antecedents of Personal Initiative**

**Ying Hong**

Fordham University

**Hui Liao**

University of Maryland & Peking University

**Steffen Raub**

Ecole Hôtelière de Lausanne – HES-SO / University of Applied Sciences Western Switzerland

**Joo Hun Han**

Rutgers, The State University of New Jersey

**Author Note:**

The first three authors contributed to the manuscript equally.

Ying Hong, Fordham University; Hui Liao, University of Maryland & Peking University; Steffen Raub, Ecole Hôtelière de Lausanne – HES-SO / University of Applied Sciences Western Switzerland; Joo Hun Han, Rutgers, the State University of New Jersey.

A part of the work for this paper was completed when Hui Liao was a Qianren Scholar and Visiting Chair Professor at the Guanghua School of Management, Peking University. We thank Action Editor Talya Bauer and two anonymous reviewers for their helpful comments.

Correspondence regarding this article should be addressed to Hui Liao, Department of Management and Organization, Robert H. Smith School of Business, University of Maryland, 4506 Van Munching Hall, College Park, Maryland 20742. E-mail: [hliao@rhsmith.umd.edu](mailto:hliao@rhsmith.umd.edu).

**What It Takes to Get Proactive:****An Integrative Multi-Level Model of the Antecedents of Personal Initiative****Abstract**

Building upon and extending Parker, Bindl, and Strauss' (2010) theory of proactive motivation, we develop an integrated, multi-level model to examine how contextual factors shape employees' proactive motivational states and, through these proactive motivational states, influence their personal initiative behavior. Using data from a sample of hotels collected from three sources and over two time periods, we show that establishment-level initiative-enhancing human resource management (HRM) systems were positively related to departmental initiative climate, which was positively related to employee personal initiative through employee role-breadth self-efficacy. Further, department-level empowering leadership was positively related to initiative climate only when initiative-enhancing HRM systems were low. These findings offer interesting implications for research on personal initiative and for the management of employee proactivity in organizations.

*Keywords:* personal initiative, proactive motivational states, initiative climate, empowering leadership, HRM systems

Today's complex and dynamic business environment is characterized by global competition, fast-paced innovation, and unpredictable changes in the expectations of organizational stakeholders. In this context, employees need to take initiative to identify new competitive threats and opportunities, to anticipate changes in customer expectations, and to keep their knowledge and skills up to date (Bindl, Parker, Totterdell, & Hagger-Johnson, 2012; Frese & Fay, 2001). Personal initiative refers to self-starting, anticipatory, long-term oriented, and persistent work behaviors of individuals (Frese & Fay, 2001) and has been shown to be associated with a range of desirable outcomes for organizations. For example, a recent meta-analysis found that at the individual level, personal initiative was positively related to employees' affective organizational commitment and performance (Thomas, Whitman, & Viswesvaran, 2010). At the collective level, studies have shown that organizations with a widespread use of personal initiative tend to perform better, particularly during times of innovation and change (Baer & Frese, 2003; Fay, Lührmann, & Kohl, 2004). In addition, employees with personal initiative actively shape their work characteristics so that they enjoy tasks with higher control and complexity (Frese, Garst, & Fay, 2007).

There is widespread agreement among organizational researchers that both individual and environmental factors affect individual behavior in organizations (Pervin, 1989). Previous studies on personal initiative, however, are largely fragmented such that they have focused on either individual antecedents including proactive personality (Bateman & Crant, 1993), or organizational contextual variables such as leadership, work design, and organizational climate (Baer & Frese, 2003; Parker, Williams, & Turner, 2006; Raub & Liao, 2012). Recent theorizing by Parker and her colleagues has prepared the ground for a more comprehensive view on personal initiative by integrating both individual and contextual factors (Parker et al., 2010).

Parker et al. (2010, p. 830) posit that proactive action is a “motivated, conscious, and goal directed” process and is driven by three proximal proactive motivational states – labeled “can do” (expectancy), “reason to” (valence), and “energized to” (affect) – which provide the fundamental impetus that stimulates individual proactive goal generation and striving. They posit that these three motivational states are influenced by various individual and contextual predictors. In this study, we use this framework as a starting point for developing and testing a comprehensive multi-level model of the antecedents of personal initiative.

In doing so, we seek to extend Parker et al.’s (2010) model of proactive motivation in two ways. First, we identify and test a specific climate that targets initiative as a key contextual predictor of personal initiative. Parker et al. (2010) proposed general social climates such as peers’ support and intra-group relations as a contextual influence on proactivity. According to organizational climate theories (Schneider, Ehrhart, & Macey, 2013), however, a specific climate that targets a particular organizational process is more powerful in predicting specific outcomes (e.g., personal initiative) than a generic climate without a specific focus. In other words, when the bandwidth and focus of the climate are aligned with those of the outcome, the climate will have a better predictive validity of the outcome (Schneider et al., 2013). Therefore, we integrate previous research on the “climate for initiative” (Raub & Liao, 2012) with Parker et al.’s (2010) model to explicitly investigate how initiative climate influences individual personal initiative by fostering the “can do,” “reason to,” and “energized to” motivational states. In this vein, we also extend the emerging research on initiative climate by delineating its mediating mechanisms.

Second, to further advance our understanding of personal initiative, this study illuminates the mechanisms that operate *upstream* to initiative climate. Based on theories and research on organizational climate (Schneider et al., 2013), we identify initiative-enhancing HRM systems at

the establishment-level and empowering leadership at the departmental-level as key antecedents of initiative climate and examine how they interact to influence initiative climate. This extends both Parker et al.'s (2010) model and research on initiative climate (Raub & Liao, 2012) by revealing the roles of organizations' HRM systems and supervisors' empowering leadership in fostering initiative climate and ultimately employee initiative. Moreover, we also shed light on how contextual factors at different levels (i.e., HRM systems, leadership, and climate) interact to influence individual proactive motivation and behavior, which has received very little attention in previous research. Together, our integrated framework (shown in Figure 1) contributes to a comprehensive understanding of the multi-level antecedents of personal initiative.

---

Insert Figure 1 about here

---

### **Theoretical Background and Hypotheses**

Organizational situational factors are often thought to influence employee behaviors by creating a particular type of organizational climate, which refers to the shared perceptions among employees regarding the specific types of behaviors that are expected and encouraged in the organization (Schneider, 1990). As multiple climates can coexist in an organization, previous research has investigated a variety of targeted climates such as service climate (Schneider, White, & Paul, 1998) or safety climate (Zacharatos, Barling, & Iverson, 2005). In this study we focus on initiative climate, which has been defined as “employee shared perceptions of the extent to which self-starting, change-oriented, long-term oriented, and persistent behavior is encouraged and rewarded by management” (Raub & Liao, 2012, p. 653) and has been conceptualized as a proximal climate that influences individuals' propensity to take initiative (Baer & Frese, 2003). Prior research on organizational climate indicates that it is jointly affected by HRM practices and leadership behaviors (Schneider, 1990; Hong, Liao, Hu, & Jiang, 2013). Given the specific focus

of initiative climate, we propose that initiative-enhancing HRM systems and empowering leadership will together shape initiative climate.

### **Initiative-Enhancing HRM Systems as a Predictor of Initiative Climate**

Theories in HRM have accentuated the importance of HRM systems in building organizational climate and managing employee behaviors. Inspired by previous research on HRM systems that targeted specific objectives, such as safety (Zacharatos, et al., 2005), knowledge-intensive teamwork (Chuang, Jackson, & Jiang, 2013), and service quality (Chuang & Liao, 2010; Liao, Toya, Lepak, & Hong, 2009), we suggest the notion of initiative-enhancing HRM systems, in which key HRM practices such as selection, training, performance appraisal, and compensation are tailored to the objective of encouraging personal initiative. Specifically, selection practices can serve as a primary mechanism to select individuals with high dispositional proactivity and/or high capabilities to take initiative (Schneider, Smith, & Goldstein, 2000). Training practices can enhance employees' role-breadth self-efficacy (Axtell & Parker, 2003), which can support individual proactive behaviors across various situations (Fay & Sonnentag, 2010). Performance appraisal and compensation programs that reward personal initiative can further induce such behaviors (Schuler & Jackson, 1987).

These HRM practices which constitute initiative-enhancing HRM systems highlight the organizational priority for initiative among other competing demands for employees, such as productivity, efficiency, or stability (Zohar & Polachek, 2014). Such a priority is perceived and shared by employees through two mechanisms. First, according to the attraction-selection-attribution model (ASA; Schneider et al., 2000), individuals of similar proactive attributes and qualities are attracted to, selected by, and retained in the organization through initiative-enhancing HRM systems, and thus develop similar perceptions regarding the extent to which

initiative taking is expected, valued, and rewarded in the organization. Second, employees' similar perceptions arising through the ASA process will be further reinforced by their social interactions (Ferris, Arthur, Berkson, Kaplan, Harrell-Cook, & Frink, 1998). Since employees' social interactions usually occur to a greater extent within their immediate work unit, rather than across units (Naumann & Bennett, 2000; Seibert, Silver, & Randolph, 2004), employees in the same department will come to construct a shared meaning of the initiative-enhancing HRM systems. Specifically, social information processing theory (Salancick & Pfeffer, 1978) suggests that employees will seek information cues from their coworkers in the same unit to help them understand their work context and adapt to the way their coworkers derive the importance of initiative-taking from the initiative-enhancing HRM systems. Similarly, sensemaking research (Weick, 1979; Weick, Sutcliffe, & Obstfeld, 2005) suggests that employees of the same work unit will collectively reflect on and articulate the meaning of initiative-enhancing HRM systems, thereby developing a shared view of the extent to which initiative-taking is encouraged and rewarded by the HRM practices. Through these social information processing and collective sensemaking processes, employees in the same department will deduce the organizational priority for initiative-taking from the initiative-enhancing HRM systems. Therefore, based on the ASA model as well as on theories of social information processing and sensemaking, we propose:

*Hypothesis 1:* Establishment-level initiative-enhancing HRM systems will be positively related to department-level initiative climate.

### **Empowering Leadership as a Predictor of Initiative Climate**

Organizational climate theories suggest that in addition to HRM systems, employees receive cues of what is expected and rewarded in the organization by observing and interacting

with their immediate leaders (Bowen & Ostroff, 2004). With regard to initiative taking, empowering leadership is particularly important (Martin, Liao, & Campbell, 2013). Empowering leaders encourage subordinates to take responsibilities on their own, to be optimistic when facing difficulties, and to collaborate with others to solve problems (Vecchio, Justin, & Pearce, 2010).

Empowering leaders can foster employees' perception of the priority for initiative-taking through social learning (Bandura, 1986) and verbal communication processes (Zohar & Polachek, 2014). First, the leader in a department is more likely than others to command attention from employees and become the target of observational learning for employees. As a legitimate role model, an empowering leader sets examples of taking independent actions and coaches employees to be forward-thinking and solve problems on their own. By observing these exemplary behaviors of the leader and learning how to be more proactive, employees form a perception of the importance of taking initiative (Bandura, 1986). Second, empowering leaders can instill in employees the priority for initiative by verbally communicating the importance of taking charge on a daily basis. Such verbal exchanges between a leader and the subordinates occur in the discussion of opportunities and challenges associated with empowered actions, thus leading to the perception that initiative taking is expected and encouraged (Zohar & Polachek, 2014).

The perception of the priority for taking initiative will then be shared among employees through empowering leaders' focus on cooperative action. While encouraging employees' independent and discretionary actions, empowering leaders also urge employees in the same department to work as a team and to coordinate their individual efforts with coworkers toward the accomplishment of collective goals (Vecchio et al., 2010). As such, under empowering leadership, employees will experience high levels of cooperative social interactions among them,



which facilitate the emergence of a shared perception of the importance of initiative-taking in the department (Morgeson & Hofmann, 1999). Therefore:

*Hypothesis 2:* Department-level empowering leadership will be positively related to department-level initiative climate.

We further propose that empowering leadership will not be equally effective under different levels of initiative-enhancing HRM systems in creating an initiative climate. First, as noted above, initiative-enhancing HRM systems will attract, select, and retain employees with proactive traits through the ASA process. As a result, employees will be more likely to endorse and support empowering leadership that provides them with opportunities to express their proactive traits (Tett & Burnett, 2003). Hence, under higher levels of initiative-enhancing HRM systems, employees will be more receptive to the priority for taking initiative signaled by empowering leadership, thus reinforcing the effect of empowering leadership in developing an initiative climate. Second, previous theory and research on organizational climate suggests that employees need to have adequate and unambiguous situational cues to develop shared perceptions about the situation (James, James, & Ashe, 1990). Put differently, a climate is more likely to emerge when various situational cues are distinctive, consistent, and consensual, thereby creating a synergistic effect in reinforcing the signal that the organization intends to convey to its employees (Bowen & Ostroff, 2004; Fiske & Taylor, 1991; see also Han, Bartol, & Kim, 2015). As such, the message about the priority for initiative from empowering leaders can be boosted by the consistent signal sent from the top management through formulating and enacting initiative-enhancing HRM systems. Based on these theoretical rationales, we propose:

*Hypothesis 3:* Department-level empowering leadership will interact with establishment-level initiative-enhancing HRM systems, such that when initiative-enhancing HRM

systems are higher rather than lower, empowering leadership will be more positively related to initiative climate.

### **Proactive Motivational States as a Mediating Mechanism**

So far we have discussed the influences of contextual factors of the organization, i.e., initiative-enhancing HRM systems and empowering leadership, as well as their interactive effects, on departmental initiative climate. According to Parker et al.'s (2010) framework, contextual variables influence employee personal initiative through the mediation of three proximal individual proactive motivational states, which are labeled as “can do,” “reason to,” and “energized to” motivation. In line with this theorizing, we propose that to the extent that employees perceive an initiative climate, their proactive motivational states will be augmented.

First, taking initiative to change the status quo, set higher goals, actively seek feedback, and overcome barriers often requires individuals to have a firm belief that they “can do” it (Parker et al., 2010). Among the “can do” motivational states for personal initiative, self-efficacy captures individuals' judgment of their ability to perform tasks, which can be either task-specific or general (Bandura, 1986). We focus on role-breadth self-efficacy, which refers to individuals' general confidence in their ability to successfully complete a broad range of tasks (Parker, 1998), because taking initiative often involves engagement in tasks that go beyond the narrow confines of an individual's job. In a high initiative climate in which individuals are encouraged to be proactive and are provided with support to overcome difficulties, individuals are more confident in their ability to succeed and, as a result, develop stronger role-breadth self-efficacy (Parker et al., 2006). This theoretical rationale is aligned with the finding that team support for innovation climate, which encourages employees to initiate innovative behaviors, increased individuals' role-breadth self-efficacy (Chen, Farh, Campbell-Bush, Wu, & Wu, 2013).

Second, even when individuals believe they have the ability to take initiative, they need to believe that there is a compelling “reason to” do so (Parker et al., 2010). We argue that one such compelling reason is individuals’ intrinsic motivation or an interest in the work activity itself (Deci & Ryan, 1985). Because personal initiative is autonomous rather than externally imposed, individuals need to have an intrinsic interest and enjoyment in their tasks to self-start activities, persist in solving problems, and bring about long-term changes. We suggest that an initiative climate will shape individuals’ intrinsic motivation because it affects how individuals perceive the nature of their job. According to theories of intrinsic motivation (Hackman & Oldham, 1980; Gagné & Deci, 2005), work contexts that provide employees with discretion in carrying out tasks and opportunities to have a positive impact on others can enhance employees’ intrinsic motivation because such contexts contribute to their perception of self-determination and impact, respectively. An initiative climate that encourages and supports employees’ self-directed activities represents a form of discretion to employees, and thus employees will be likely to experience a strong sense of self-determination - a perception that they can determine their own course of action. Additionally, given that an initiative climate signals to employees the importance of initiating long-term changes and tackling problems on their own, they will be likely to experience a strong sense of impact - a perception that they can make a positive, long-term contribution to their job and organization. In other words, employees will perceive enhanced levels of self-determination and impact when embedded in an environment with a high initiative climate, thereby experiencing a high level of intrinsic motivation. In a related research, Chen et al. (2013) showed that team support for innovation climate was associated with employee intrinsic motivation. Also, Zhang and Bartol (2010) found that psychologically empowered employees had higher intrinsic motivation. These empirical findings are aligned with

our theoretical rationale and suggest that initiative climate should increase employee intrinsic motivation.

Third, aside from “can do” and “reason to” motivational states, individuals also need activated positive affect to be “energized to” take initiative (Parker et al., 2010). Grant and Ashford (2008) argue that taking initiative is inherently an emotional process as it may risk individuals’ status and image in the organization. An individual’s core positive affect refers to “elementary feelings of pleasure and of activation or deactivation... which are primitive, universal, and irreducible on the mental plane” (Seo, Barrett, & Bartunek, 2004, p. 424). Activated positive affect includes emotions such as being excited, active, and enthusiastic, in contrast to deactivated positive affect which involves feelings such as being calm, relaxed, and content (Seo et al., 2004). We conceptualize activated positive affect as a general affect that employees experience on average while at work, as opposed to event-based emotions at a particular time point, because we study activated positive affect in the context of initiative climate that concerns employees’ overall perceptions and experiences (e.g., Bindl et al., 2012). As an initiative climate encourages individuals’ self-starting, forward-oriented, and persistent behaviors, it will likely enhance employees’ activated positive affect for two reasons. First, the perception that initiative is encouraged and valued at the organization builds valuable psychological resources such as opportunities for personal control and skill use, which are critical for a person to feel enthusiastic and active at work (Warr, 2011). Indeed, between-person variance in perceptions of problem solving demands was shown to relate to individual activated positive affect (Daniels, Wimalasiri, Beesley, & Cheyne, 2012); enhanced opportunities for information acquisition were found to be associated with positive active emotions at work (Todorova, Bear, & Weingart, 2014). Second, when perceiving an increased level of initiative

climate, employees may deduce that the top management and immediate leaders respect them as individuals and trust their decision-making skills (cf. Spreitzer & Mishra, 1999). Such a valued social position contributes to individuals' feelings of being inspired, proud, and excited at work (Warr, 2011). Taken together, previous research suggests that initiative climate should be associated with more activated positive affect among employees. Therefore, we propose:

*Hypothesis 4:* Department-level initiative climate will be positively related to individual-level proactive motivational states, including a) role-breadth self-efficacy, b) intrinsic motivation, and c) activated positive affect.

According to Parker et al.'s (2010) framework, the three aforementioned motivational states will influence the extent to which individuals take personal initiative. First, when individuals possess a high level of role-breadth self-efficacy, they tend to attach a higher likelihood of success to the inherently challenging tasks associated with personal initiative (Parker et al., 2006, 2010). Role-breadth self-efficacy has been shown to influence various types of behaviors that are beyond typical task requirements, such as innovation (Axtell, Holman, Unsworth, Wall, & Waterson, 2000; Chen et al., 2013) and proactive work performance (Griffin, Neal, & Parker, 2007; Parker et al., 2006). Second, intrinsically motivated employees are more likely to generate proactive goals that will extend their enjoyment and stimulation from tasks (Parker et al., 2010). Further, they will be more likely to strive for proactive goals that often involve challenges, because a high level of intrinsic motivation helps them sustain a high level of interest and enthusiasm despite potential difficulties and setbacks that may occur in the process of initiative taking (Gagné & Deci, 2005; Parker et al., 2010). Through this proactive goal setting and striving, intrinsically motivated employees will take more initiative. Third, individuals' activated positive affect may influence personal initiative through shaping individuals'

expectancy, utility, and process judgment (Parker et al., 2010; Seo et al., 2004). On the basis of mood as information theory (Schwarz & Clore, 2003), Parker et al., (2010) suggest that individuals with activated positive affect tend to recall/pay attention to positive possibilities of their actions (high expectation) and/or evaluate the outcomes favorably (high utility). Likewise, positive affect will allow individuals to make favorable process judgments about their current course of action, which is imperative for individuals to follow through when obstacles arise (Seo et al., 2004). Based on these theoretical rationales, we propose:

*Hypothesis 5:* Individual-level proactive motivational states, including a) role-breadth self-efficacy, b) intrinsic motivation, and c) activated positive affect, will be positively related to individual-level personal initiative.

Finally, based on Parker et al.'s (2010) theorizing of work environment variables as distal antecedents and psychological states as proximal antecedents to proactive behaviors, we further hypothesize that initiative climate will have an indirect effect on personal initiative through the three motivational states. This is consistent with previous theorizing and research on organizational climate. For instance, safety climate shaped individuals' safety knowledge and motivation, which in turn influenced their safety performance (Christian, Wallace, Bradley, & Burke, 2009). Thus, when initiative climate translates into individual "can do," "reason to," and "energized to" motivation, actual personal initiative will follow. Formally stated:

*Hypothesis 6:* Department-level initiative climate will have an indirect effect on individual-level personal initiative through proactive motivational states including a) role-breadth self-efficacy, b) intrinsic motivation, and c) activated positive affect.

## Methods

### Sample and Procedure

Data for this project were collected in 22 hotel establishments of an international chain headquartered in Europe. The project was sponsored by the chain's Vice President of Human Resources who introduced the study and obtained agreement to participate from all 22 hotels of the chain. The establishments' geographical locations are in the U.S., Europe, Asia and Australia. In terms of size, they range from mid-sized to very large hotels and all of them are positioned in the upper-upscale or luxury segments of the market.

The authors forwarded survey questionnaires as PDF documents to the resident Human Resources manager or Training manager of every hotel. The local managers then sent an identical introductory message, which was prepared by the authors, to the entire staff of the hotel. The local managers also printed the survey materials and distributed them in paper-and-pencil format together with blank envelopes to the various groups of respondents. In addition, they used staff meetings and other local communication channels to remind respondents of the deadlines for returning completed questionnaires. All respondents were allowed to complete the survey during working hours and were assured that their responses would be treated with full confidentiality. They were instructed to seal the completed survey in a blank envelope and return the envelope to a collection box. The local management retrieved the sealed envelopes from the collection box and forwarded them to the authors.

Data were collected in two waves and from three different data sources. At Time 1, we sent a questionnaire to every member of the establishment's Executive Committee (which typically comprises the General Manager and the heads of the most important departments). This questionnaire contained a measure of initiative-enhancing HRM systems. At Time 2,

approximately four months later, we sent a questionnaire to all employees at the lowest hierarchical level of the establishments and a second questionnaire to their direct supervisors. The employee questionnaire contained demographic information, measures of employee-level proactive personality and proactive motivational states and a measure of department-level initiative climate. The supervisor questionnaire included a measure of department-level empowering leadership and a measure for each of their subordinates' personal initiative.

All questionnaires were prepared in English. However, the HR managers of several establishments expressed doubts regarding the English language proficiency of their employees and requested a translation of the questionnaire into their local language. We therefore translated the surveys into four additional languages: Chinese, German, Japanese, and Thai. Translations were carried out by professional translators and were followed by a back-translation according to the procedure outlined by Brislin (1980).

At Time 1, a total of 124 Executive Committee members returned completed questionnaires for a response rate of 92%. At Time 2, we obtained completed questionnaires from 2,023 employees and from 328 supervisors (with assessments of one or several employees per supervisor). Due to the substantial number of temporary employees and the chronically high turnover in the hospitality industry, especially in front-line service positions, a precise response rate at this level is difficult to compute. However, by comparing the number of questionnaires received and rough headcount statistics obtained from the participating hotels, we estimate the response rate at this level to be in the 70-80% range. Matching of supervisor and employee questionnaires resulted in a final usable sample of 664 employees and 260 supervisors from 160 departments in 13 establishments. Forty percent of them were female, the average age of respondents was 31.3 years ( $SD = 10.5$  years).



### Individual-Level Measures

**Proactive motivational states.** *Role-breadth self-efficacy* was measured with 7 items developed by Parker et al. (2006). Items were introduced with the common item stem “How confident would you feel about...” and sample items include “Analyzing a long-term problem to find a solution” and “Representing your work area in meetings with senior management.” This rating scale was anchored at 1, “not at all confident” and 5, “very confident” ( $\alpha = .91$ ). *Intrinsic motivation* was assessed with 4 items (rated from 1, “strongly disagree” to 5, “strongly agree”) by Guay, Vallerand, and Blanchard (2000). Sample items include “I think that my job is interesting” and “I feel good when doing my job” ( $\alpha = .81$ ). *Activated positive affect* was measured by the 10-item positive affect measure from the PANAS scales (Watson, Clark, & Tellegen, 1988). Items were introduced with the question “During the last 4-5 weeks, to what extent did you feel the following at work?” and the rating scale was anchored at 1, “To a very small extent” and 5, “To a very large extent” and sample items include “active,” “attentive,” “excited,” and “inspired” ( $\alpha = .93$ ). Consistent with prior research (Griffin, 2001; Madrid, Patterson, Birdi, Leiva, & Kausel, 2014; Todorova et al., 2014), this item stem positions activated positive affect as an overall affective state. Using the overall motivational state as a predictor provides a proper match with our outcome variable of personal initiative, which itself unfolds over an extended period of time (Cronbach & Gleser, 1965).

**Personal initiative.** Supervisors evaluated employees’ personal initiative with the 7-item measure developed by Frese, Fay, Hilburger, Leng, and Tag (1997) (rated from 1, “strongly disagree” to 5, “strongly agree”). The items were headed by the common stem “This particular employee...”; and sample items include “Whenever there is a chance to get actively involved, takes it” and “Takes initiative immediately even when others don’t” ( $\alpha = .93$ ).

**Control variables.** At the employee-level we controlled for age, gender, and proactive personality. Age has been found in a meta-analysis to be associated with personal initiative (Thomas et al., 2010). Likewise, gender has been shown to correlate with personal initiative and thus has been controlled for in prior research (e.g., Bolino & Turnley, 2005). In addition, proactive personality has been conceptualized as a dispositional measure of individual proactivity that will persist across contexts and over time (Bateman & Crant, 1993; Crant, 1995; Parker et al., 2006), and bears a relationship with personal initiative (Thomas et al., 2010). We have therefore included employee self-reported proactive personality as a control variable. We measured proactive personality with a 6-item short version of the original Bateman and Crant (1993) scale validated by Claes, Beheydt, and Lemmens (2005) (rated from 1, “strongly disagree” to 5, “strongly agree”). Sample items include “If I see something I don’t like, I fix it” and “I am always looking for better ways to do things” ( $\alpha = .78$ ).

### **Department-Level Measures**

**Initiative climate.** We used the 16-item measure developed by Raub and Liao (2012) to assess initiative climate via employee ratings. The scale includes four subscales which were designed to capture the construct domain of Frese, Kring, Soose, and Zempel’s (1996) personal initiative construct, namely self-starting behavior, change orientation, long-term focus and persistence (rated from 1, “strongly disagree” to 5, “strongly agree”). Sample items include “Employees are encouraged to tackle service-related problems without being explicitly told by their supervisor,” “Employees are expected to challenge tried and tested ways of doing things in guest service,” “When a service-related problem emerges, employees are expected to address its root cause in such a way that the problem does not re-occur,” and “Employees are encouraged to solve service-related problems in a persistent manner.”

Given the multidimensional nature of the scale, we conducted a confirmatory factor analysis (CFA), and found that the second-order one-factor model where each of the 16 items loaded onto its respective first-order factor (i.e., self-starting behavior, change orientation, long-term focus, and persistence), which then loaded onto the higher order factor (i.e., initiative climate), fit the data well,  $\chi^2(100) = 485.48$ , RMSEA = .08, CFI = .98, and SRMR = .03. In addition, the factor loadings of the four first-order factors onto the second-order factor were high (i.e., .93, .86, .86, and .83) and the variances in the first order-factors were substantially explained by the second-order factor (i.e., 87%, 74%, 73%, and 69%). Therefore, we created an index of initiative climate by averaging across the four dimensions ( $\alpha = .95$ ).

We then aggregated employees' ratings of initiative climate to create a department-level variable. This was supported by a high average  $r_{wg(j)}$  value of .90, indicating that employees in the participating departments overall strongly agreed on their assessment of initiative climate (LeBreton & Senter, 2008). An ICC(1) value of .33,  $F(159, 504) = 3.06$ ,  $p < .001$ , which is considered a large effect (LeBreton & Senter, 2008), indicates that department membership accounted for 33% of the variance in initiative climate ratings (Bliese, 2002). In addition, an ICC(2) of .67 suggests high reliability of department means (this value is comparable to or higher than those obtained in other climate studies, e.g., Chen, Kirkman, Kanfer, Allen, & Rosen, 2007; Hofmann, Morgeson, & Gerras, 2003).

**Empowering leadership.** Empowering leadership of the department head was assessed by supervisors in the focal department, using a 10-item scale developed by Vecchio et al. (2010) (rated from 1, "strongly disagree" to 5, "strongly agree"). Sample items include "Encourages team members to find solutions to their problems without his/her direct input" and "Advises team members to solve problems when they pop up without always getting a stamp of approval"

( $\alpha = .89$ ). We aggregated supervisors' ratings of department heads' empowering leadership to form a department-level variable when multiple supervisors participated in the survey. This aggregation was justified by a high average  $r_{wg(j)}$  value of .96 (LeBreton & Senter, 2008), along with an ICC(1) value of .13,  $F(56, 99) = 1.40, p < .10$ , which is a medium effect (Bliese, 2002; LeBreton & Senter, 2008). The relatively low ICC(2) value of .28 may be explained by the small numbers of supervisors per department who provided ratings<sup>1</sup> of empowering leadership (Bliese, 2000). Since low group mean reliability makes it difficult to detect relationships involving aggregated variables, our results for the relationships including department-level empowering leadership can be seen as conservative tests of our hypotheses (Bliese, 2000).

### **Establishment-Level Measures**

**Initiative-enhancing HRM systems.** Executive Committee members in each establishment provided ratings of initiative-enhancing HRM systems at the establishment-level. We assessed initiative-enhancing HRM systems with a 16-item scale developed for the purpose of this study. Following established research in strategic HRM (Collins and Smith, 2006), the scale focuses on four core domains of HRM systems, i.e., selection, training, performance evaluation, and rewards, and was designed to assess the extent to which each of these practices is geared towards enhancing personal initiative (Frese & Fay, 2001; Raub and Liao, 2012). Items were rated from 1, "strongly disagree" to 5, "strongly agree".

A CFA revealed that the second-order one-factor model where each of 16 items loaded onto its respective first-order factor (i.e., initiative-enhancing selection, training, evaluation, and rewards), which then loaded onto the higher order factor (i.e., initiative-enhancing HRM systems) fit the data adequately,  $\chi^2(100) = 366.19$ , RMSEA = .11, CFI = .98, and SRMR = .04.

---

<sup>1</sup> The number of supervisors providing ratings of empowering leadership ranged from 1 to 6 with an average of 1.63 supervisors per department.

Although the RMSEA value for the second-order one-factor model was slightly above the commonly accepted cut-off point (Browne & Cudeck, 1989), the model met the joint criteria of  $CFI \geq .96$  and  $SRMR \leq .09$  indicating acceptable model fit (Hu & Bentler, 1999). In addition, the factor loadings of the four first-order factors onto the second-order factor were high (i.e., .90, .94, .93, and .80) and the variances in the first order-factors were substantially explained by the second-order factor (i.e., 81%, 89%, 87%, and 64%). Therefore, we created an index of initiative-enhancing HRM systems by averaging the four dimensions ( $\alpha = .93$ ). A full list of items with their factor loadings is included in the Appendix.

We then aggregated Executive Committee members' ratings of initiative-enhancing HRM systems to create an establishment-level variable. ICC(1) was .15, a medium to large effect (LeBreton & Senter, 2008) and ICC(2) was .53, which was comparable to other studies on HRM systems (e.g., Takeuchi, Chen, & Lepak, 2009). The F-test results related to ICC values were statistically significant,  $F(12, 67) = 2.11, p < .05$ . Further, the  $r_{wg(j)}$  of .98 indicates that Executive Committee members in the participating establishments strongly agreed on their assessment of initiative-enhancing HRM systems (Bliese, 2002; LeBreton & Senter, 2008).

### **Discriminant Validity**

Because employees provided responses on initiative climate, proactive motivational states, and proactive personality in the same survey, we conducted a CFA to examine the distinctiveness among these constructs. Results suggest that the hypothesized five-factor model fit the data well,  $\chi^2(850) = 5072.40$ , RMSEA = .09, CFI = .97, and SRMR = .05. Further, this model fit the data significantly better than a three-factor model in which all the items for the three motivational states loaded on a single factor,  $\Delta\chi^2(7) = 2,093.91, p < .001$ , RMSEA = .12, CFI = .95, and SRMR = .07, and significantly better than a one factor model,  $\Delta\chi^2(10) =$

6,106.74,  $p < .001$ , RMSEA = .20, CFI = .92, and SRMR = .10. We also conducted a three-level CFA with all study variables from all sources and found that the hypothesized seven-factor model fit the model better than the one-factor model in which all of the items for the study variables loaded onto a single factor, i.e.,  $\Delta\text{AIC} = 7622.169$  (which is considered a substantial difference, Burnham & Anderson, 2004) and  $\Delta\text{BIC} = 7370.266$  (which is considered a strong difference, Kass & Raftery, 1995). These findings support the discriminant validity of these measures.

### **Analytical Strategy**

As some of our hypotheses involved moderation and mediation spanning establishment, department, and individual levels, we used three-level path analysis with Mplus 7. Following the recommendations by Preacher, Zyphur, and Zhang (2010), we tested all our hypotheses simultaneously rather than in piecemeal and causal step approaches. In testing the cross-level interaction in Hypothesis 3, we rescaled department heads' empowering leadership with group-mean centering (i.e., within-establishment centering) and establishment-level initiative-enhancing HRM systems using grand-mean centering, consistent with recent recommendations (Aguinis, Gottfredson, & Culpepper, 2013). To test Hypothesis 6, we examined the indirect effects of departments' initiative climate on employees' personal initiative via their proactive motivational states with the parametric bootstrap method using R 3.0.2. This approach is preferred over the normal distribution-based significance tests (Preacher et al., 2010).

### **Results**

Descriptive statistics, correlations, and Cronbach's alpha values are presented in Table 1. Before testing the hypotheses, we calculated ICC(1) values to determine the extent to which our dependent variable, i.e., employee personal initiative, varied among different establishments and

departments. We found that the ICC(1) was .20 ( $F(12, 651) = 14.12, p < .001$ ) and .44 ( $F(159, 504) = 4.23, p < .001$ ) respectively, indicating that 20% of the total variance in employees' personal initiative resided between establishments and 44% resided between departments. We further conducted a likelihood ratio test comparing a random-intercept model and an equal-intercept model, and found that the random-intercept model fit the data significantly better than the equal-intercept model. This suggests that personal initiative intercepts vary significantly between establishments and departments (likelihood ratio = 183.10,  $p < .001$ ). Taken as a whole, these results support our use of random coefficient modeling (Bliese, 2002).

Our results suggest a significant cross-level relationship between establishment-level initiative-enhancing HRM systems and department-level initiative climate ( $\gamma = .54, p < .01$ ) as shown in the left column of Model 1 in Table 2. This means that an increase in an establishment's use of initiative-enhancing HRM systems was significantly associated with an increase in the overall level of departmental initiative climate in the establishment. This finding provides support for Hypothesis 1. By contrast, we did not find support for the effects of department-level empowering leadership on initiative climate ( $\gamma = .11, p > .10$ ). Therefore, Hypothesis 2 was not supported. Next, the right column of Model 1 in Table 2 shows that the cross-level interaction between department-level empowering leadership and establishment-level initiative-enhancing HRM systems was significantly negative ( $\gamma = -.71, p < .01$ ), which is the opposite of what was suggested in Hypothesis 3. To further probe the interaction, we plotted the interactive effects at high (+1 *SD*) and low (-1 *SD*) levels of initiative-enhancing HRM systems. Figure 2 indicates that department heads' empowering leadership was more positively related to departmental initiative climate when the level of initiative-enhancing HRM systems was low ( $\beta = .49, p < .01$ ) rather than high ( $\beta = .05, p > .10$ ). This suggests that empowering leadership tends

to have a stronger impact on initiative climate in establishments that make less use of initiative-enhancing HRM systems. Thus, Hypothesis 3 was not supported.

---

Insert Table 1, Table 2, and Figure 2 about here

---

Departmental initiative climate was hypothesized to be positively related to individual employees' proactive motivational states. In support of Hypothesis 4, we found that department-level initiative climate had a significantly positive cross-level relationship with employees' role-breadth self-efficacy ( $\gamma = .40, p < .001$ ), intrinsic motivation ( $\gamma = .54, p < .001$ ), and activated positive affect ( $\gamma = .59, p < .001$ ), respectively. This result (shown in Models 2 to 4 in Table 2) indicates that employees' overall levels of the three motivational states were significantly higher in departments with higher, rather than lower, initiative climate.

Employees' role-breadth self-efficacy, intrinsic motivation, and activated positive affect were then expected to predict their personal initiative. As shown in Model 5 of Table 2, only role-breadth self-efficacy was significantly related to personal initiative ( $\beta = .07, p < .001$ ). These findings provide partial support for Hypothesis 5. Intrinsic motivation and positive affect were not associated with personal initiative ( $\beta = -.01, p > .10$ ;  $\beta = .01, p > .10$ , respectively).

Lastly, we examined the mediating roles of the three proactive motivational states for the cross-level relationship between department-level initiative climate and employee personal initiative. We used the parametric bootstrap method to test for indirect effects (Preacher et al., 2010) and we found that initiative climate was associated with employees' personal initiative through role-breadth self-efficacy (indirect effect = .03, 95% confidence interval [.01, .05]). The results do not provide evidence for the mediating roles of intrinsic motivation (indirect effect = -.01, 95% confidence interval [-.05, .04]) and positive affect (indirect effect = .01, 95%



confidence interval [-.05, .06]). Therefore, Hypothesis 6 was partially supported.<sup>2</sup>

### Discussion

Extending the theoretical model of proactive motivation by Parker et al. (2010) and the work on initiative climate by Raub and Liao (2012), we develop a multi-level model to examine how contextual factors work to shape employee proactive motivational states and then personal initiative behavior. Using data from three sources over two time periods of a sample of hotels, our results show that establishment-level initiative-enhancing HRM systems were positively related to departmental initiative climate. In addition, department-level empowering leadership was positively related to initiative climate only when initiative-enhancing HRM systems were low. Further, initiative climate was indirectly channeled to employee personal initiative through role-breadth self-efficacy. These findings offer several implications for research and practice.

### Theoretical Implications

First, this study offers an integrated framework of multi-level antecedents of personal initiative. Although the importance of employee initiative is uncontested, research on what it takes for employees to get proactive has been relatively fragmented, emphasizing either contextual (e.g., Baer & Frese, 2003) or individual influences (e.g., Bateman & Crant, 1993). Parker et al.'s (2010) model of proactive motivation offers a solid foundation for the current study to examine how key distal contextual variables work together to shape proximal individual motivational states, which further shape personal initiative. To our knowledge, we are among the

---

<sup>2</sup> In supplementary moderated mediation analyses, we examined the mediating effect of initiative climate on the relationships between empowering leadership and three proactive motivational states as moderated by initiative-enhancing HRM systems. We found that the indirect relationship between empowering leadership and three motivational states via initiative climate was significantly positive under a low level of initiative-enhancing HRM systems (indirect effects were .20 [ $p < .05$ ], .27 [ $p < .01$ ], and .29 [ $p < .01$ ] for role-breadth self-efficacy, intrinsic motivation, and activated positive affect, respectively), but were non-significant under a high level of initiative-enhancing HRM systems (indirect effects were .02 [ $p > .05$ ], .03 [ $p > .05$ ], and .03 [ $p > .05$ ], respectively). The differences in the indirect effects between the two conditions were also significant (the differences were .18 [ $p < .01$ ], .24 [ $p < .01$ ], and .26 [ $p < .01$ ], respectively).

first to heed Parker et al.'s (2010) call for the development and testing of an integrated framework of the antecedents of personal initiative. Our results, showing the effects of initiative-enhancing HRM systems, empowering leadership, initiative climate, and role-breadth self-efficacy, provide encouraging empirical evidence for Parker et al.'s (2010) model.

Second, we extend Parker et al.'s (2010) model by highlighting initiative climate as an important linking pin between distal contextual influences and proximal motivational states that contribute to employee initiative. Building upon the work of Baer and Frese (2003) and Fay et al. (2004), Raub and Liao (2012) developed a construct of initiative climate to represent employee shared perceptions of the extent to which personal initiative is encouraged and rewarded by management and showed its impact on employee proactive customer service performance. We extend the work of Raub and Liao (2012) by integrating the notion of initiative climate more tightly into the model of proactive motivation (Parker et al., 2010). Specifically, we show how strategically targeted HRM and leadership approaches give rise to initiative climate, and how individual proactive motivational states serve as the underlying mechanism through which initiative climate affects individual proactivity. Therefore, the current study answers Raub and Liao's (2012) call to better understand the antecedents and influence process of initiative climate.

Relatedly, to our knowledge this study is among the first to examine the joint effects of HRM systems and leadership, as well as their interaction, on organizational climate in an integrated study. We found that initiative climate mediated the relationship between empowering leadership and individual motivational states under a lower level of initiative-enhancing HRM systems. This finding extends the empowering leadership literature that has largely focused on either individual-level (e.g., self-efficacy in Ahearne, Mathieu, & Rapp, 2005) or group-level motivational states (e.g., team efficacy in Srivastava, Bartol, & Locke, 2006) as its outcome with

little attention paid to the mediating mechanisms. Further, our findings identify a broader set of motivational variables (i.e., role-breadth, rather than general, self-efficacy; activated positive affect) as novel outcomes of empowering leadership. In addition, our finding on the moderating role of initiative-enhancing HRM systems responds to the call for research on the boundary conditions for the effect of empowering leadership (Sharma & Kirkman, 2015).

Third, while overall our findings have provided general support for our proposed theoretical framework, there is an unexpected yet interesting finding that is worth further discussion. In particular, we discovered a negative interaction between initiative-enhancing HRM systems and empowering leadership, which was contrary to our expectation based on the notion of a consistency effect (Bowen & Ostroff, 2004). Instead, they are more aligned with the substitute effect that has been proposed by contingent leadership perspectives such as substitutes for leadership (Kerr & Jermier, 1978) and leadership enhancers and neutralizers (Howell, Dorfman, & Kerr, 1986), which argue that certain individual and contextual characteristics can magnify or reduce the influence of leadership on employee outcomes. We found that empowering leadership was positively related to initiative climate only when initiative-enhancing HRM systems were low. This finding suggests that department head's level of empowering leadership did not seem to matter much when there were high initiative-enhancing HRM systems, which through a coherent set of selection, training, evaluation, and reward practices already sent strong and clear signals to employees regarding the desirability of personal initiative. Our finding supports House's (1996, p. 348) argument that "leaders, to be effective, engage in behaviors that complement subordinate's environments and abilities in a manner that compensates for deficiencies." Our findings also corroborate some earlier empirical evidence that increased role clarity (House & Mitchell, 1974) and specification of processes and

procedures (Jermier & Kerr, 1997) reduced the need for leadership, greater geographic dispersion among team members increased the need for inspirational leadership in virtual teams (Joshi, Lazarova, & Liao, 2009), and a larger distance to external customers increased the need for customer-oriented leadership in developing employees' customer-orientated attitudes (Liao & Subramony, 2008). The current study thus underscores the importance of examining leadership with broader organizational contextual characteristics taken into consideration.

### **Managerial Implications**

To survive and thrive in today's ever-changing business environment, organizations need employees to engage in self-starting, anticipatory, forward-looking, and persistent behaviors. A large body of literature has shown the positive impact of employee proactivity such as personal initiative on individual, group, and organizational performance (Grant & Ashford, 2008; Parker et al., 2010). In addition to its general benefits, personal initiative is a particularly important ingredient for organizational success in the service sector which was the context of the present study (Liao, 2007; Liao & Chuang, 2007). Our study provides implications for organizations regarding what specific actions they can take to motivate employees to take more personal initiative.

First, our results suggest that organizations may cultivate an initiative climate, as it was positively related to the "can do," "reason to," and "energized to" proactive motivational states, and was related to personal initiative through enhanced employee role-breadth self-efficacy. In today's dynamic business environment, there are often unexpected changes in task demands and unforeseen situations requiring employee self-directed actions. Therefore, managers cannot always solicit appropriate employee responses through formal control. Instead, managers can create an initiative climate as an ambient background that signals to employees that personal

initiative is expected and encouraged, thus guiding employees' psychological states and behaviors towards proactivity even when management is not there telling them what to do. Second, our results shed light on how to cultivate such an initiative climate, underscoring the importance of establishing initiative-enhancing HRM systems. Through formal HRM practices of selecting, training, evaluating, and rewarding employees who demonstrate personal initiative, organizations help employees recognize that their organizations are really serious about the importance of this type of employee behavior; these employee perceptions serve as the solid foundation to form initiative climate. Third, initiative-enhancing HRM systems can be costly to build (Huselid, 1995). Our results show that when such systems are lacking or are difficult to implement, department heads could jump into the breach. In the void of initiative-enhancing HRM systems, organizations can encourage their department heads to display empowering leadership behaviors to enhance initiative climate. Given that initiative-enhancing HRM systems and empowering leadership serve as substitutes, organizations may adopt either one or the other, depending on which is a more cost-effective way to shape initiative climate.

### **Limitations and Future Research**

A few limitations of the paper should be noted. First of all, we operationalized the “can do,” “reason to,” and “energized to” proactive motivational states as role-breadth self-efficacy, intrinsic motivation, and activated positive affect. We found that role-breadth self-efficacy was the only one that significantly transmitted the effects of initiative climate to personal initiative. There could be a couple of explanations for this unexpected finding. First, it could mean that among the three motivational states, the “can do” motivation is the dominant, most important one; when employees have strong confidence in their capability of completing a broad range of tasks, they are more likely to take initiative no matter how much they are intrinsically motivated

or feel active and excited. Second, it could mean that the “reason to” and “energized to” motivational states might manifest in ways other than the ones in this study. For example, we operationalized the “reason to” state using intrinsic motivation; it could be that other variables, such as extrinsic motivation, might better capture the reason to take initiative (Bolino, Valcea, & Harvey, 2010). In fact, as the initiative-enhancing HRM systems in our study assessed and rewarded employee initiative taking, the role of extrinsic motivation might have been more pronounced. Likewise, activated positive affect, a manifestation of “energized to” motivational state, may operate in a fashion more complex than a linear effect on personal initiative (Lam, Spreitzer, & Fritz, 2014). Third, another potential reason is the existence of other work context or individual difference factors that could potentially moderate the relationship between individual motivational states and proactivity (Parker et al., 2010). For instance, even when employees are intrinsically motivated, they may not display personal initiative if the work context does not call for proactive behavior (Ohly & Fritz, 2007). Related evidence suggests that suboptimal work contexts such as time pressure may heighten the need for change to which employees may respond with taking initiative (Fay & Sonnentag, 2002; Sonnentag, 2003). Also, Bissing-Olson, Iyer, Fielding, & Zacher (2013) found that individual daily activated positive affect was associated with proactive pro-environmental behavior only among employees with a less positive pro-environmental attitude. Therefore, we encourage future research to examine how different manifestations of the three proactive motivational states relate to personal initiative in different ways, and the moderating effects of work context and individual difference factors.

Second, while we used data collected at multiple levels, from multiple sources, and at multiple times to reduce common method bias, and attempts were made to control for individual difference variables that were shown to be relevant to the study outcomes (e.g., proactive

personality), causal inferences among the studied variables are not warranted. However, possible concerns about reverse causations are mitigated for theoretical and empirical reasons. First, our examination of the influence of contextual factors (e.g., initiative-enhancing HRM systems, empowering leadership, and initiative climate) on employees' proactive motivational states and their personal initiative is clearly aligned with the theory of proactive motivation (Parker et al., 2010). Second, from an empirical perspective, we examined a range of alternative models with reversed relationships between variables measured by the same sources (e.g., empowering leadership and personal initiative; initiative climate and motivational states) and between empowering leadership and initiative climate due to the potential mutual causation between leadership and climate (cf. Zohar & Luria, 2005). We found that our original hypothesized model fit the data better than all of the alternative models. Nonetheless, we encourage further research to examine how the causal relationships proposed in our theoretical model may unfold over time.

Lastly, we would like to note a few methodological considerations. First, our sample size of 13 at the establishment-level could potentially limit the power of our analyses. However, a power analysis using Mathieu, Aguinis, Culpepper, and Chen's (2012) tool revealed that the power of our analyses involving initiative-enhancing HRM systems comfortably exceeded the desired level of .80 (Scherbaum & Ferreter, 2009). Second, our initiative-enhancing HRM systems had limited variance. However, this variance was statistically significant. The fact that we found significant main and moderating effects of the initiative-enhancing HRM systems indicates that our findings can be considered conservative (Aguinis, 1995). We call for future research to replicate the effects of initiative-enhancing HRM systems using a larger sample and involving greater variance in HRM systems. More generally, we hope that our study serves as a catalyst for future endeavors to find out what drives or inhibits personal initiative under what

conditions.



### References

- Ahearne, M., Mathieu, J., & Rapp, A. (2005). To empower or not to empower your sales force? An empirical examination of the influence of leadership empowerment behavior on customer satisfaction and performance. *Journal of Applied Psychology, 90*, 945-955.
- Aguinis, H. (1995). Statistical power with moderated multiple regression in management research. *Journal of Management, 21*, 1141-1158.
- Aguinis, H., Gottfredson, R. K., & Culpepper, S. A. (2013). Best-practice recommendations for estimating cross-level interaction effects using multilevel modeling. *Journal of Management, 6*, 1490-1528.
- Axtell, C. M., & Parker, S. K. (2003). Promoting role breadth self-efficacy through involvement, work redesign and training. *Human Relations, 56*, 113-131.
- Axtell, C. M., Holman, D. J., Unsworth, K. L., Wall, T. D., & Waterson, P. E. (2000). Shopfloor innovation: Facilitating the suggestion and implementation of ideas. *Journal of Occupational and Organizational Psychology, 73*, 265-385.
- Baer, M., & Frese, M. (2003). Innovation is not enough: Climates for initiative and psychological safety, process innovations, and firm performance. *Journal of Organizational Behavior, 24*, 45-68.
- Bandura, A. (1986). *Social foundations of thought and action*. Englewood Cliffs, NJ: Prentice-Hall.
- Bateman, T. S., & Crant, J. M. (1993). The proactive component of organizational behavior: A measure and correlates. *Journal of Organizational Behavior, 14*, 103-118.
- Bindl, U. K., Parker, S. K., Totterdell, P., & Hagger-Johnson, G. (2012). Fuel of the Self-Starter:

- How Mood Relates to Proactive Goal Regulation. *Journal of Applied Psychology*, 97, 134-150.
- Bissing-Olson, M.J., Iyer, A., Fielding, K.S., & Zacher, H. (2013). Relationships between daily affect and pro-environmental behavior at work: The moderating role of pro-environmental attitude. *Journal of Organizational Behavior*, 34, 156-175.
- Bliese, P. D. (2000). Within-group agreement, non-independence, and reliability: Implications for data aggregation and analysis. In K. J. Klein & S. W. J. Kozlowski (Eds.), *Multilevel theory, research and methods in organizations* (pp. 349–381). San Francisco: Jossey-Bass.
- Bliese, P. D. (2002). Multilevel random coefficient modeling in organizational research: Examples using SAS and S-Plus. In F. Drasgow & N. Schmitt (Eds.), *Advances in measurement and data analysis* (pp. 401-445). San Francisco: Jossey-Bass.
- Bolino, M. C., & Turnley, W. H. (2005). The personal costs of citizenship behavior: The relationship between individual initiative and role overload, job stress, and work-family conflict. *Journal of Applied Psychology*, 90, 740-748.
- Bolino, M., Valcea, S., & Harvey, J. (2010). Employee, manage thyself: The potentially negative implications of expecting employees to behave proactively. *Journal of Occupational & Organizational Psychology*, 83, 325-345.
- Bowen, D. E., & Ostroff, C. (2004). Understanding HRM-firm performance linkages: The role of the “strength” of the HRM system. *Academy of Management Review*, 29, 203-221.
- Brislin, R. W. (1980). Translation and content analysis of oral and written material. *Handbook of Cross-Cultural Psychology*, 2, 349-444.

- Browne, M. W., & Cudeck, R. (1989). Single sample cross validation indices for covariance structures. *Multivariate Behavioral Research, 24*, 445-455.
- Burnham, K. P., & Anderson, D. R. (2004). Multimodel inference understanding AIC and BIC in model selection. *Sociological Methods and Research, 33*, 261-304.
- Chen, G., Farh, J., Campbell-Bush, E. M., Wu, Z., & Wu, X. (2013). Teams as innovative systems: Multilevel motivational antecedents of innovation in R&D teams. *Journal of Applied Psychology, 98*, 1018-1027.
- Chen, G., Kirkman, B. L., Kanfer, R., Allen, D., & Rosen, B. (2007). A multilevel study of leadership, empowerment, and performance in teams. *Journal of Applied Psychology, 92*, 331-346.
- Christian, M. S., Wallace, J. C., Bradley, J. C., & Burke, M. J. (2009). Workplace safety: A meta-analysis of the roles of person and situation factors. *Journal of Applied Psychology, 94*, 1103-1127.
- Chuang, C. H., Jackson, S. E., & Jiang, Y. (2013). Can knowledge-intensive teamwork be managed? Examining the roles of HRM systems, leadership, and tacit knowledge. *Journal of Management, 0149206313478189*.
- Chuang, C. H., & Liao, H. (2010). Strategic human resource management in service context: Taking care of business by taking care of employees and customers. *Personnel Psychology, 63*, 153-196.
- Claes, R., Beheydt, C., & Lemmens, B. (2005). Unidimensionality of abbreviated proactive personality scales across cultures. *Applied Psychology: An International Review, 54*, 476-489.

- Collins, C. J., & Smith, K. G. (2006). Knowledge exchange and combination: The role of human resource practices in the performance of high-technology firms. *Academy of Management Journal, 49*, 544-560.
- Crant, J. M. (1995). The proactive personality scale and objective job performance among real estate agents. *Journal of Applied Psychology, 80*, 532-537.
- Cronbach, L. J., & Gleser, G. C. (1965). *Psychological tests and personnel decisions* (2nd ed.). Urbana: University of Illinois Press.
- Daniels, K., Wimalasiri, V., Beesley, N., & Cheyne, A. (2012). Affective well-being and within-day beliefs about job demands' influence on work performance: An experience sampling study. *Journal of Occupational and Organizational Psychology, 85*, 666-674.
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum Press.
- Fay, D., Lührmann, H., & Kohl, C. (2004). Proactive climate in a post-reorganization setting: When staff compensate managers' weakness. *European Journal of Work and Organizational Psychology, 13*, 241-267.
- Fay, D., & Sonnentag, S. (2002). Rethinking the effects of stressors: A longitudinal study on personal initiative. *Journal of Occupational Health Psychology, 7*, 221-234.
- Fay, D., & Sonnentag, S. (2010). A look back to move ahead: New directions for research on proactive performance and other discretionary work behaviours. *Applied Psychology: An International Review, 59*, 1-20.
- Ferris, G. R., Arthur, M. M., Berkson, H. M., Kaplan, D. M., Harrell-Cook, G., & Frink, D. D. (1998). Toward a social context theory of the human resource management-organization

- effectiveness relationship. *Human Resource Management Review*, 8, 235-264.
- Fiske, S. T., & Taylor, S. E. (1991). *Social cognition*. New York: McGraw-Hill.
- Frese, M., & Fay, D. (2001). Personal initiative: An active performance concept for work in the 21st century. *Research in Organizational Behavior*, 23, 133-187.
- Frese, M., Fay, D., Hilburger, T., Leng, K., & Tag, A. (1997). The concept of personal initiative: Operationalization, reliability and validity in two German samples. *Journal of Occupational and Organizational Psychology*, 70, 139-161.
- Frese, M., Garst, H., & Fay, D. (2007). Making things happen: Reciprocal relationships between work characteristics and personal initiative in a four-wave longitudinal structural equation model. *Journal of Applied Psychology*, 92, 1084-1102.
- Frese, M., Kring, W., Soose, A., & Zempel, J. (1996). Personal initiative at work: Differences between east and west germany. *Academy of Management Journal*, 39, 37-63.
- Gagné, M., & Deci, E. L. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior*, 26, 331-362.
- Grant, A. M., & Ashford, S. J. (2008). The dynamics of proactivity at work. *Research in Organizational Behavior*, 28, 3-34.
- Griffin, M. A. (2001). Dispositions and work reactions: A multilevel approach. *Journal of Applied Psychology*, 86, 1142-1151.
- Griffin, M. A., Neal, A., & Parker, S. K. (2007). A new model of work role performance: Positive behavior in uncertain and interdependent contexts. *Academy of Management Journal*, 50, 327-347.

- Guay, F., Vallerand, R. J., & Blanchard, C. (2000). On the assessment of situational intrinsic and extrinsic motivation: The Situational Motivation Scale (SIMS). *Motivation and Emotion, 24*, 175–213.
- Hackman, J.R., & Oldham, G.R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior & Human Performance, 16*, 250-279.
- Han, J. H., Bartol, K. M., & Kim, S. (2015). Tightening up the performance-pay linkage: Roles of contingent reward leadership and profit-sharing in the cross-level influence of individual pay-for-performance. *Journal of Applied Psychology, 100*, 417-430.
- Hofmann, D. A., Morgeson, F. P., & Gerras, S. J. (2003). Climate as a moderator of the relationship between leader-member exchange and content specific citizenship: Safety climate as an exemplar. *Journal of Applied Psychology, 88*, 170-178.
- Hong, Y., Liao, H., Hu, J., & Jiang, K. (2013). Missing link in the service profit chain: A meta-analytic review of the antecedents, consequences, and moderators of service climate. *Journal of Applied Psychology, 98*, 237-267.
- House, R. J. (1996). Path-goal theory of leadership: Lessons, legacy and a reformulated theory. *Leadership Quarterly, 7*, 323-352.
- House, R. J., & Mitchell, T. R. (1974). Path-goal theory of leadership. *Journal of Contemporary Business, 5*, 81-97.
- Howell, J. P., Dorfman, P. W., Kerr, S. (1986). Moderator variables in leadership research. *Academy of Management Review, 11*, 88-102.
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6*, 1-55.

- Huselid, M. A. (1995). The impact of human resource management practices on turnover, productivity, and corporate financial performance. *Academy of Management Journal*, 38, 635-672.
- James, L. R., James, L. A., & Ashe, D. K. (1990). The meaning of organizations: The role of cognitions and values. In B. Schneider (Ed.), *Organizational climate and culture* (pp. 40-84). San Francisco: Jossey-Bass.
- Jermier, J. M., & Kerr, S. (1997). Substitutes for leadership: Their meaning and measurement—Contextual recollections and current observations. *Leadership Quarterly*, 8, 95-102.
- Joshi, A., Lazarova, M. B., & Liao, H. (2009). Getting everyone on board: The role of inspirational leadership in geographically dispersed teams. *Organization Science*, 20, 240-252.
- Kass, R. E., & Raftery, A. E. (1995). Bayes Factors. *Journal of the American Statistical Association*, 90, 773-795.
- Kerr, S. & Jermier, J. M., (1978). Substitutes for leadership: Their meaning and measurement. *Organizational Behavior and Human Performance*, 22, 375-403.
- Lam, C.F., Spreitzer, G., & Fritz, C. (2014). Too much of a good thing: Curvilinear effect of positive affect on proactive behaviors. *Journal of Organizational Behavior*, 35, 530-546.
- LeBreton, J. M. & Senter, J. L. (2008). Answers to 20 questions about interrater reliability and interrater agreement. *Organizational Research Methods*, 11, 815-852.
- Liao, H. (2007). Do it right this time: The role of employee service recovery performance in customer-perceived justice and customer loyalty after service failures. *Journal of Applied Psychology*, 92, 475-489.

- Liao, H., & Chuang, A. (2007). Transforming service employees and climate: A multi-level multi-source examination of transformational leadership in building long-term service relationships. *Journal of Applied Psychology, 92*, 1006-1019.
- Liao, H., & Subramony, M. (2008). Employee customer orientation in manufacturing organizations: Joint influences of customer proximity and senior leadership team. *Journal of Applied Psychology, 93*, 317-328.
- Liao, H., Toya, K., Lepak, D. P., & Hong, Y. (2009). Do they see eye to eye? Management and employee perspectives of high-performance work systems and influence processes on service quality. *Journal of Applied Psychology, 94*, 371-391.
- Madrid, H. P., Patterson, M. G., Birdi, K. S., Leiva, P. I., & Kausel, E. E. (2014). The role of weekly high- activated positive mood, context, and personality in innovative work behavior: A multilevel and interactional model. *Journal of Organizational Behavior, 35*, 234-256.
- Martin, S. L., Liao, H., & Campbell, E. M. (2013). Directive versus empowering leadership: A field experiment comparing impacts on task proficiency and proactivity. *Academy of Management Journal, 56*, 1372-1395.
- Mathieu, J. E., Aguinis, H., Culpepper, S. A., & Chen, G. (2012). Understanding and estimating the power to detect cross-level interaction effects in multilevel modeling. *Journal of Applied Psychology, 97*, 951-966.
- Morgeson, F. P., & Hofmann, D. A. (1999). The structure and function of collective constructs: Implications for multilevel research and theory development. *Academy of Management Review, 24*, 249-265.



- Naumann, S. E., & Bennett, N. (2000). A case for procedural justice climate: Development and test of a multilevel model. *Academy of Management Journal*, *43*, 881-889.
- Ohly, S., & Fritz, C. (2007). Challenging the status quo: What motivates proactive behaviour?. *Journal of Occupational and Organizational Psychology*, *80*, 623-629.
- Parker, S. K. (1998). Enhancing role breadth self-efficacy: The roles of job enrichment and other organizational interventions. *Journal of Applied Psychology*, *83*, 835-852.
- Parker, S. K., Bindl, U. K., & Strauss, K. (2010). Making things happen: A model of proactive motivation. *Journal of Management*, *36*, 827-856.
- Parker, S. K., Williams, H. M., & Turner, N. (2006). Modeling the antecedents of proactive behavior at work. *Journal of Applied Psychology*, *91*, 636-652.
- Pervin, L. A. (1989). Persons, situations, interactions: The history of a controversy and a discussion of theoretical models. *Academy of Management Review*, *14*, 350-360.
- Preacher, K. J., Zyphur, M. J., & Zhang, Z. (2010). A general multilevel SEM framework for assessing multilevel mediation. *Psychological methods*, *15*, 209-233.
- Raub, S., & Liao, H. (2012). Doing the right thing without being told: Joint effects of initiative climate and general self-efficacy on employee proactive customer service performance. *Journal of Applied Psychology*, *97*, 651-667.
- Salancick, G., & Pfeffer, J. (1978). A social information processing approach to job attitudes and task design. *Administrative Science Quarterly*, *23*, 224-253.
- Scherbaum, C. A., & Ferreter, J. M. (2009). Estimating statistical power and required sample sizes for organizational research using multilevel modeling. *Organizational Research Methods*, *12*, 347-367.

- Schneider, B. (1990). The climate for service: An application of the climate construct. In B. Schneider (Ed.), *Organizational climate and culture* (pp. 383-412). San Francisco: Jossey-Bass.
- Schneider, B., Ehrhart, M. G., & Macey, W. H. (2013). Organizational climate and culture. *Annual Review of Psychology, 64*, 361-388.
- Schneider, B., Smith, D. B., & Goldstein, H. W. (2000). Attraction-selection-attrition: Toward a person-environment psychology of organizations. In K. H. C. W. Bruce Walsh, Richard H. Price (Ed.), *Person-environment psychology: New directions and perspectives* (2nd ed.) (pp. 61-85). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Schneider, B., White, S. S., & Paul, M. C. (1998). Linking service climate and customer perceptions of service quality: Test of a causal model. *Journal of Applied Psychology, 83*, 150-163.
- Schuler, R. S., & Jackson, S. E. (1987). Linking competitive strategies with human resource management practices. *Academy of Management Executive, 1*, 207-219.
- Schwarz, N., & Clore, G. L. (2003). Mood as information: 20 years later. *Psychological Inquiry, 14*, 296-303.
- Seibert, S. E., Silver, S. R., & Randolph, W. A. (2004). Taking empowerment to the next level: A multiple-level model of empowerment, performance, and satisfaction. *Academy of Management Journal, 47*, 332-349.
- Seo, M., Barrett, L. F., & Bartunek, J. M. (2004). The role of affective experience in work motivation. *Academy of Management Review, 29*, 423-439.
- Sharma, P. N., & Kirkman, B. L. (2015). Leveraging Leaders A Literature Review and Future

- Lines of Inquiry for Empowering Leadership Research. *Group & Organization Management*, 40, 193-237.
- Sonnentag, S. (2003). Recovery, work engagement, and proactive behavior: a new look at the interface between nonwork and work. *Journal of Applied Psychology*, 88, 518-528.
- Spreitzer, G. M., & Mishra, A. K. (1999). Giving up control without losing control trust and its substitutes' effects on managers' involving employees in decision making. *Group & Organization Management*, 24, 155-187.
- Srivastava, A., Bartol, K. M., & Locke, E. A. (2006). Empowering leadership in management teams: Effects on knowledge sharing, efficacy, and performance. *Academy of Management Journal*, 49, 1239-1251.
- Takeuchi, R., Chen, G., & Lepak, D. P. (2009). Through the looking glass of a social system: cross-level effects of high-performance work systems on employees' attitudes. *Personnel Psychology*, 62, 1-29.
- Tett, R. P., & Burnett, D. D. (2003). A personality trait-based interactionist model of job performance. *Journal of Applied Psychology*, 88, 500-517.
- Thomas, J. P., Whitman, D. S., & Viswesvaran, C. (2010). Employee proactivity in organizations: A comparative meta-analysis of emergent proactive constructs. *Journal of Occupational and Organizational Psychology*, 83, 275-300.
- Todorova, G., Bear, J.B., & Weingart, L.R. (2014). Can Conflict Be Energizing? A Study of Task Conflict, Positive Emotions, and Job Satisfaction. *Journal of Applied Psychology*, 99, 451-467.
- Vecchio, R. P., Justin, J. E., & Pearce, C. L. (2010). Empowering leadership: An examination of

mediating mechanisms within a hierarchical structure. *Leadership Quarterly*, 21, 530-542.

Warr, P. (2011). *Work, happiness and unhappiness*. Psychology Press.

Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, 54, 1063-1070.

Weick, K. (1979). *The Social Psychology of Organizing*. New York: McGraw-Hill.

Weick, K. E., Sutcliffe, K. M., & Obstfeld, D. (2005). Organizing and the process of sensemaking. *Organization Science*, 16, 409-421.

Zacharatos, A., Barling, J., & Iverson, R. D. (2005). High-performance work systems and occupational safety. *Journal of Applied Psychology*, 90, 77-93.

Zhang, X., & Bartol, K. M. (2010). Linking empowering leadership and employee creativity: The influence of psychological empowerment, intrinsic motivation, and creative process engagement. *Academy of Management Journal*, 53, 107-128.

Zohar, D., & Luria, G. (2005). A multilevel model of safety climate: cross-level relationships between organization and group-level climates. *Journal of Applied Psychology*, 90, 616-628.

Zohar, D., & Polachek, T. (2014). Discourse-Based Intervention for Modifying Supervisory Communication as Leverage for Safety Climate and Performance Improvement: A Randomized Field Study. *Journal of Applied Psychology*, 99, 113-124.

Table 1

*Descriptive Statistics and Zero-Order Correlations*

Variable	Mean	SD	1	2	3	4	5			
<i>Individual-level variables</i>										
1. Age	31.30	10.49								
2. Gender	0.40	0.49	-.04							
3. Proactive Personality	3.86	0.55	-.09*	-.08*	<b>.78</b>					
4. Role-Breadth Self-Efficacy	3.48	0.87	-.01	-.14**	.53**	<b>.91</b>				
5. Intrinsic Motivation	3.85	0.73	-.02	-.03	.49**	.49**	<b>.81</b>			
6. Activated Positive Affect	3.71	0.78	-.04	-.08*	.50**	.59**	.71**	<b>.93</b>		
7. Personal Initiative	3.86	0.61	.00	-.07	.21**	.27**	.20**	.28**	<b>.93</b>	
<i>Department-level variables</i>										
1. Initiative Climate	3.98	.51	<b>.95</b>							
2. Empowering Leadership	4.08	.54	.19*	<b>.89</b>						
<i>Establishment-level variable</i>										
1. Initiative-Enhancing HRM systems	4.41	.28	<b>.93</b>							

*Note.*  $N = 13$  (establishment-level); 160 (department-level); 664 (individual-level). \*  $p < .05$ ; \*\*  $p < .01$ . Bold figures on the diagonals are scale reliabilities (Cronbach's alpha). Two-tailed tests.

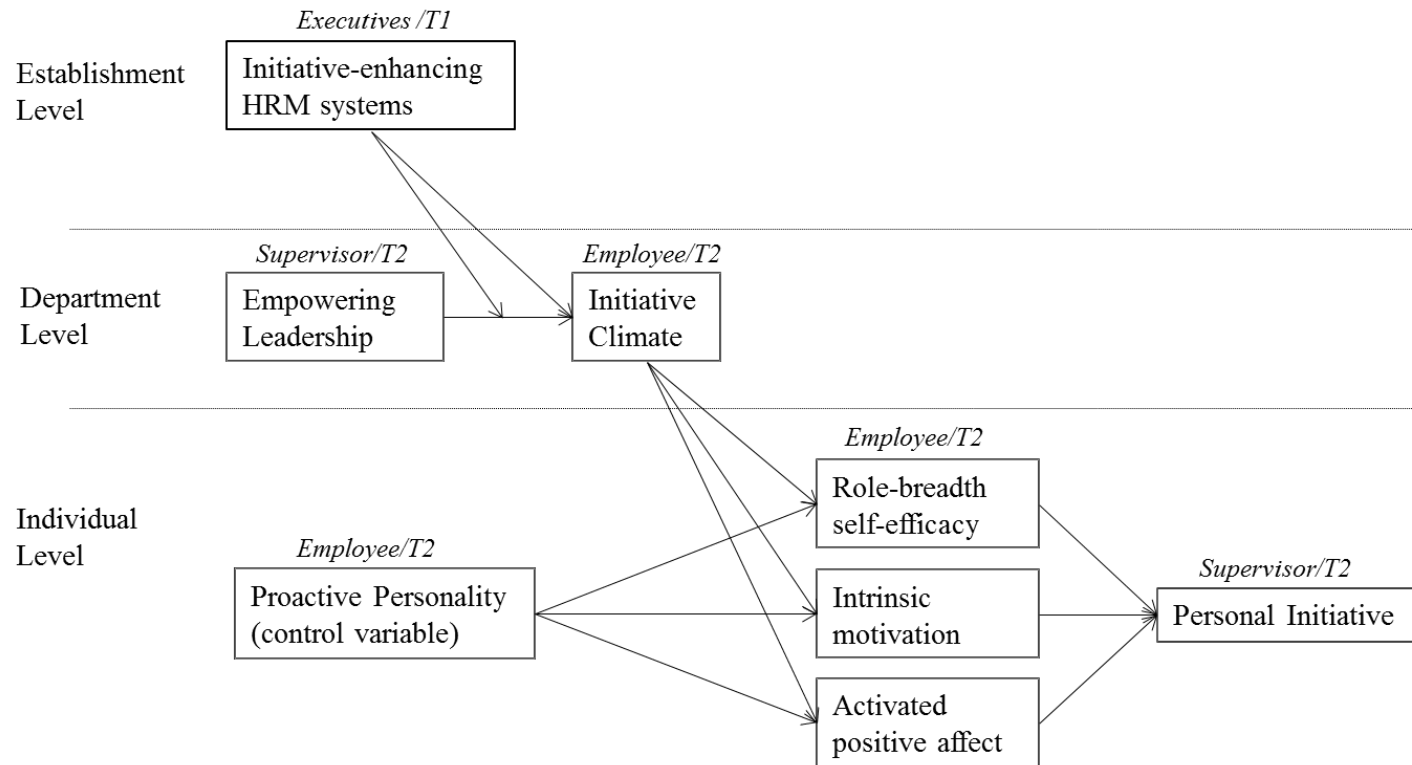


Activated positive affect						.01 (.04)
Establishment-level pseudo R <sup>2</sup>	.34	.33	.79	.63	.71	.45
Department-level pseudo R <sup>2</sup>	.02	.07	.46	.72	.64	.00
Individual-level pseudo R <sup>2</sup>	<i>n.a</i>	<i>n.a</i>	.17	.18	.19	.02
Total pseudo R <sup>2</sup>	.11	.14	.27	.31	.35	.09

*Note.*  $N = 13$  (establishment-level); 160 (department-level); 664 (individual-level). +  $p < .10$ , \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ . Standard errors are reported in the parenthesis. Two-tailed tests.

Figure 1

*The Proposed Theoretical Model*

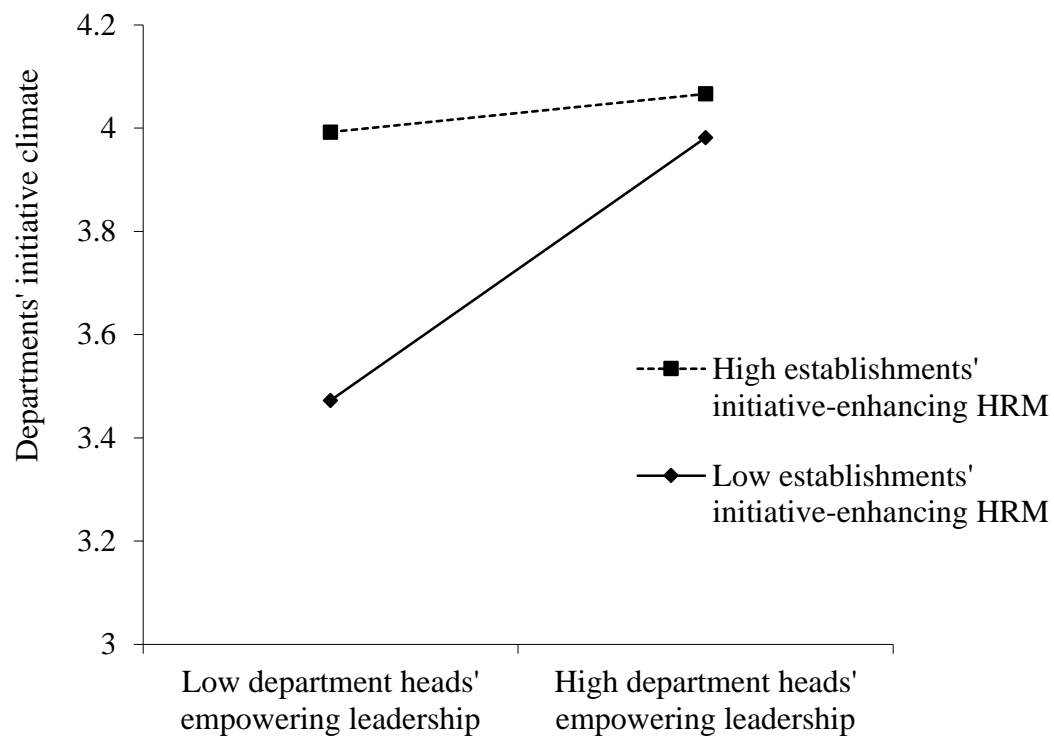


*Note.* In italics we indicate the rating sources (executive committee members, supervisors, and employees) and waves (T1 and T2).



Figure 2

*Interactive Effects of Empowering Leadership × Initiative-Enhancing HRM Systems on Initiative Climate.*



## Appendix

*Initiative-enhancing HRM systems items and factor loadings from second-order CFA*

<b>Items</b>	<b>First-order loadings</b>	<b>Second-order loadings</b>
<i>Selection</i>		
We try to recruit and select employees who are forward-looking and address work-related issues before they become a problem.	.67	.90
We try to recruit and select employees who come up with ideas and initiate better ways of doing their job.	.70	
We try to recruit and select employees who are self-starters and take initiative at work.	.64	
We try to recruit and select employees who are persistent in their efforts and follow through with work-related issues.	.71	
<i>Training</i>		
We train employees to be forward-looking and address work-related issues before they become a problem.	.77	.94
We train employees to come up with ideas and initiate better ways of doing their job.	.72	
We train employees to be self-starters and take initiative at work.	.68	
We train employees to be persistent in their efforts and follow through with work-related issues.	.71	
<i>Performance evaluation</i>		
We evaluate employees positively when they are forward-looking and address work-related issues before they become a problem.	.72	.93
We evaluate employees positively when they come up with ideas and initiate better ways of doing their job.	.69	
We evaluate employees positively when they are self-starters and take initiative at work.	.69	
We evaluate employees positively when they are persistent in their efforts and follow through with work-related issues.	.72	
<i>Rewards</i>		
We reward employees for being forward-looking and addressing work-related issues before they become a problem.	.86	.80
We reward employees for coming up with ideas and initiating better ways of doing their job.	.87	
We reward employees for being self-starters and taking initiative at work.	.87	
We reward employees for being persistent in their efforts and following through with work-related issues.	.87	