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# High-Performance Work Systems as an Initiator of Employee Proactivity and Flexible Work Processes

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We offer a conceptual framework that explicates the effect of high-performance work systems (HPWS) on the flexibility of organizational work processes. The flexibility of work processes is conceptualized as the extent to which organizational work routines can be modified by employees to better exploit existing capabilities or be adapted to explore new alternatives. We argue that HPWS directly facilitate individual proactivity, and foster a supportive social structure that further enables individuals to be proactive in modifying their work processes. The proposed model is in response to calls for researchers to consider proximal outcomes related to the use of human resource management (HRM) systems and, more specifically, the need to better understand how HRM systems can enable employees to respond to threats and opportunities. Future research issues are also considered, including recommendations for empirical assessment of how employees modify their work processes. *Organization Management Journal*, 12: 64–74, 2015. doi: 10.1080/15416518.2014.1001055

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The “black box” symbolizing the ill-defined relationship between human resource management (HRM) systems and organizational performance is not as dark since the early calls for theoretical illumination of the intermediate processes that explain how and why HRM systems affect organizational outcomes (e.g., Guest, 1987; Wright & McMahan, 1992). Intermediating constructs suggested as important include the internal social structure among employees (Evans & Davis, 2005), the strength of the HRM system (Bowen & Ostroff, 2004), line of sight (Buller & McEvoy, 2012), organizational resilience (Lengnick-Hall, Beck, & Lengnick-Hall, 2011), and adaptive capability (Wei & Lau, 2010). While progress has been made, the metaphorical black box still afflicts strategic HRM research (Buller & McEvoy, 2012; Guest, 2011; Jiang, Lepak, Hu, & Baer, 2012). Despite considerable support for

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the proposition that HRM practices directly impact employee behavior (Lepak, Liao, Chung, & Harden, 2006; Wright & Snell, 1998), we contend that continued theoretical progress requires that researchers utilize a multilevel perspective to examine proximal outcomes of HRM systems, such as proactive employee performance and the flexibility of work processes.

To advance understanding of the process by which HRM benefits an organization, we propose a theoretical model of how HRM systems impact (a) employee proactivity and (b) the impact of employee proactivity on the flexibility of work processes. HRM systems are a bundle of complementary and reinforcing HRM practices that function as an enabler of strategy implementation (Lepak et al., 2006; Paauwe, 2009). The ability to achieve a strategic competitive advantage often requires that organizations respond to environmental dynamics by reconfiguring their operational capabilities (Teece, 2007; Zollo & Winter, 2002). Accordingly, a common theme of strategic HRM research is that organizational effectiveness is appreciably dependent upon the human capital pool and its responsiveness to opportunities and threats. Emerging evidence indicates that HRM systems positively influence organizational capabilities to develop innovative products and services while simultaneously pursuing innovative operational efficiencies (Patel, Messersmith, & Lepak, 2013). This may explain, at least in part, why HRM systems have been found to positively impact firm financial performance (Becker & Huselid, 1998; Combs, Liu, Hall, & Ketchen, 2006; Jiang et al., 2012). However, relatively little research has considered how HRM systems impact the proactive innovative capabilities of individual employees (Jackson, Schuler, & Jiang, 2014; Paauwe, 2009), despite recognition that an organization’s ability to successfully respond to opportunities and threats is deeply rooted in its employee human capital (Kang & Snell, 2009; Patel et al., 2013). We seek to fill this gap by exploring how HRM systems enable the creation of new ideas and behaviors, the implementation of these actions, and the adoption of these actions by other relevant members of the organization.

A basic premise of our research is that work processes, while often routinized, can also be flexible, and that such

flexibility can contribute to organizational success. We define the flexibility of work processes in terms of the extent to which organizational work routines can be modified to better exploit existing capabilities or be adapted to explore new alternatives. Routine exploitation concerns the refinement and improvement of existing processes, competencies, and technologies. Routine exploration involves concentrated variations and experimentations with alternatives such as new technologies or paradigms (Gupta, Smith, & Shalley, 2006; March, 1991). While these constructs are often the subject of firm-level studies, they can be applied at the level of work routines (i.e., work processes). Indeed, routines are foundational elements of exploration and exploitation. Organizational-level capabilities are the “ability to integrate, build, and reconfigure” (Teece, Pisano, & Shuen, 1997, p. 516) an organization’s principle functional activities, which are aggregations of lower level routines (Salvato & Rerup, 2011). Established work processes must evolve, through either exploitation or exploration, in response to opportunities and threats for an organization to establish or maintain its competitiveness (Zollo & Winter, 2002).

Based on these premises, the question we seek to address is how high-performance work systems (HPWS), which emphasize developing highly skilled and adaptable employees (Lepak et al., 2006; Patel et al., 2013), affect the flexibility of organizational work processes. We begin by reviewing the relevant strategic HRM literature with an emphasis on how HPWS enable and encourage individual proactivity such that employees take initiative to modify their work processes. We then draw upon the concept of organizational routines as a bridging construct that links HRM systems to individual behavior, and individual behavior to the flexibility of work processes. We argue that HPWS (a) enhance the ability, motivation, and opportunity for employee proactivity, and (b) create a supportive social structure that buttresses employee proactivity. Our main contribution is a framework (see Figure 1) that explicates how HPWS affect the flexibility of work processes by enabling individuals to proactively adapt and modify their work processes. Lastly, we discuss implications of our model for future theoretical and empirical research.

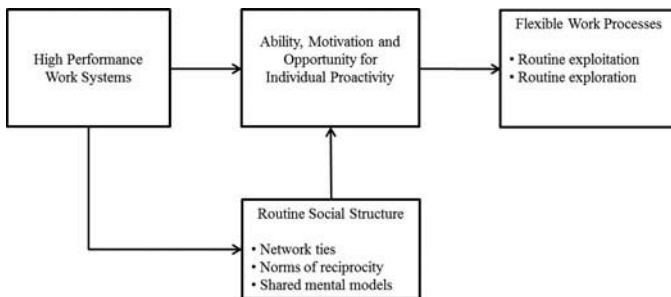


FIG. 1. Relationship between high-performance work systems and flexible work processes.

## THEORETICAL BACKGROUND

An HRM system is a set or bundle of interdependent and complementary HR practices (Becker & Huselid, 1998) that acquires, builds, and directs the efforts of the pool of human capital. Systems of HR practices can emphasize varied objectives and thus have been variously labeled HPWS (Becker & Huselid, 1998), high-commitment practices (Collins & Smith, 2006), or high-involvement practices (Lawler, 1992). Our focus is specifically on HPWS, which include elements of both high-commitment and high-involvement systems, but are broader in scope and emphasizes efficient and flexible organizational performance (Lepak et al., 2006) by using a system of practices that promote active employee participation in how work is performed (Appelbaum, Bailey, & Berg, 2000; Combs et al., 2006). HPWS are defined “as an integrated system of HR practices that are internally consistent (alignment among HR practices) and externally consistent (alignment with organizational strategy)” (Evans & Davis, 2005, p. 759). HPWS practices include selective staffing, extensive training, empowerment enhancing practices (decentralized decision making, flexible job assignments, and self-managed teams), open communication, and performance contingent compensation. Though there is not a definitive list of the HR practices comprising HPWS, these practices represent categories of practices frequently included in HPWS research (Becker & Huselid, 1998; Evans & Davis, 2005; Lepak et al., 2006).

The impact of HPWS on individual performance operates via three intermediate mechanisms: ability, motivation, and opportunity (Appelbaum et al., 2000; Jiang et al., 2012; Lepak et al., 2006). Staffing and training practices enhance employee knowledge, skills, and abilities (KSAs) and thus the ability to perform. Motivation is influenced by the incentive structure and cued behavioral expectations. Opportunity is provided when employees have substantial discretion in decision making, and when work is structured to promote involvement. HPWS are believed to facilitate a competitive advantage by structuring work systems so that employees can readily apply their KSAs and work cooperatively toward the achievement of organizational goals (Evans & Davis, 2005). Despite recognition that HPWS have more proximal effects on individual behavior, as compared to organizational level outcomes, researchers have not typically examined these proximal employee outcomes in detail. We argue that HPWS enhance the plasticity of employee behavior by increasing the ability to be proactive, the motivation to be proactive, and the opportunity to be proactive in modifying work processes.

In addition to their impacts on individual ability, motivation, and opportunity, HPWS also facilitate a positive social structure (i.e., employee relationship networks) within the work environment. Outcomes such as network ties, norms of reciprocity, trust, cooperation, and shared mental models are all linked to HRM systems (Collins & Smith, 2006; Evans & Davis, 2005). These elements of a high-quality social structure aid the ability of individuals to function coherently, especially in situations

where employees have different expertise (Evans & Carson, 2005; Nahapiet & Ghoshal, 1998). We next explain how HPWS create a high-quality social structure that functions as conduit for the flow of knowledge and other resources: a social structure that supports individual initiative to modify work processes.

To explain the relationship between individual proactivity and flexible work processes, we employ the construct of routines. Routines are considered the basic means for accomplishing organizational objectives and executing strategy (Cyert & March, 1963; Salvato & Rerup, 2011). Organizational routines are comprised of multiple persons that engage in repetitive and interdependent actions: work processes that are a platform for both stability and flexibility (Cohen & Bacdayan, 1994; Pentland & Feldman, 2005). Work routines can be flexible because employees are mindful actors who can modify and adapt their work processes (Parmigiani & Howard-Grenville, 2011). Even in the presence of formalized work procedures, individuals can recognize performance shortfalls or undesired outcomes and then adjust their behaviors accordingly (Feldman, 2000). HRM systems, specifically HPWS, can create a work environment in which proactive employees are focused on (a) coordinating and streamlining their current work process to create more value (routine exploitation) and (b) experimenting with new ideas and reacting to environmental changes (routine exploration). For example, recent findings reveal a positive association between HPWS and the organizational capabilities of exploitation (e.g., improving quality, lowering costs, fine-tuning methods to satisfy customers) and exploration (delivering innovative products and services, utilizing new technologies, targeting new customers) (Patel et al., 2013).

## A CONCEPTUAL MODEL OF HPWS AND FLEXIBLE WORK PROCESSES

Our model (Figure 1) proposes that HPWS encourage individuals to be proactive and fosters a supportive social structure that enables them to be proactive in modifying their work processes. Individual proactivity is described as taking initiative to solve problems or implement ideas (Parker, William, & Turner, 2006). Proactive employees are “self-starters” who seek to correct or prevent current or anticipated problems, or who take charge of ideas for improving the workplace. Antecedents of proactivity correspond to many practices of HPWS and include autonomy, job enlargement, goal focused supervision, the use of teams for continuous improvement, increased responsibilities, and communication channels that encourage employee suggestions (Morrison & Phelps, 1999; Parker et al., 2006). HPWS increase the likelihood of routine participants having the skills, motivation, and opportunity to voice ideas or take initiative to resolve performance deficits or explore new possibilities.

Next we turn to detailing the linkages in the model. First, we examine how specific HPWS practices impact the individual ability, motivation, and opportunity to be proactive. We analyze the practices of HPWS independently, though cognizant

that HPWS are actually a system of mutually supportive HR practices that create synergistic effects (Delery & Shaw, 2001; Lepak et al., 2006). We propose what we believe to be the strongest and most readily apparent relationships, but we do not suggest that these are the only relationships. Our approach is consistent with evidence that various HR functions have nonequivalent effects on outcomes such as employee motivation, operational efficiency, and firm financial performance (Jiang et al., 2012). However, the interdependent and synergistic nature of these practices becomes apparent even as we examine their effects independently.

## HPWS, INDIVIDUAL PROACTIVITY, AND THE FLEXIBILITY OF WORK PROCESSES

### Staffing

Selective staffing leads to greater ability and motivation to engage in proactivity. Selective staffing techniques utilize validated screening tests to assess job relevant KSAs and/or fit with the social context of the organization (Becker & Huselid, 1998; Evans & Davis, 2005). While traditional job-related KSAs are important, personal attributes that contribute to proactivity and flexibility are increasingly emphasized in many organizations. The ability to adapt requires modifying one’s task behaviors to fit with novel and frequently ill-defined work situations (Chan, 2000). Successful adaptation often requires creativity and experimentation, especially in the situations of high task complexity that are common in many of today’s work settings (Fisher & Ford, 1998; LePine, Colquitt, & Erez, 2000). Selection procedures that consider individual traits for proactivity in addition to technical KSAs provide a foundation for flexible work processes by acquiring a workforce that is able and motivated to change. For instance, research indicates that having a proactive personality (i.e., a tendency to exhibit initiative, search for opportunities, and bring about change) is positively associated with initiating actions to make improvements or resolve performance deficits (Parker et al., 2006).

In addition to identifying individual traits conducive to proactivity, researchers and practitioners are increasingly emphasizing person–organization fit as an important selection criterion. Studies support the potential role of organizational fit in the creative processes needed for changing work routines. Gilson and Shalley (2004) demonstrated a positive association between team member shared goals and creative processes such as searching for novel approaches and divergent ideas. When routine members feel a sense of compatibility with others (i.e., a psychological connection based on congruent preferences), they are more open to experimentation with the routine, and more likely to develop new and innovative understandings of its application (Branzei & Fredette, 2008). Feeling connected also increases the willingness to engage in such changes. For instance, a study by Gilson and Shalley (2004) found that service team employees with mutual goals pertaining to customer

outcomes were more likely to consider, discuss, and evaluate new methods of completing customer repairs. Work processes were modified via experimentation and ultimately revised to incorporate new ways of performing their tasks. Conversely, rigid norms will likely result in creative proposals being devalued, and routine members may respond negatively to individuals seen as outliers (Branzei & Fredette, 2008). Thus, staffing practices that focus on selecting proactive individuals while also emphasizing fit with mutual interests will enhance the flexibility of work routines.

Proposition 1: HPWS staffing practices are positively related to the ability and motivation to be proactive.

### Training

Training is also expected to lead to greater ability and motivation to engage in proactive behaviors. Training for new and existing employees can foster ability by developing the broad array of technical and interpersonal KSAs needed to perform the work routine (Evans & Davis, 2005; Pfeffer & Veiga, 1999). Training is linked to novel thinking and problem-solving ability (Shalley & Gilson, 2004), and having both depth and breadth of KSAs can aid in adapting to work demands or successfully dealing with uncertainty in tasks (Chan, 2000; LePine et al., 2000). Ongoing training leads to employees who are better able to comprehend associations between divergent issues and see new possibilities. For instance, training practices such as cross-training and training for anticipated future work demands are positively associated with technical innovations such as revising production technologies and processes (Shipton, West, Dawson, Birdi, & Patterson, 2006). Training practices that provide varied work experiences can also increase the likelihood that employees will recognize possibilities for effective change. For instance, Salvato (2009) detailed the process by which product design routines evolved when the heterogeneous experiences of product designers converged. Variations in work routines may at first only take the form of incremental adjustments, yet over time these variations provide a reservoir of collective knowledge: lessons that can later be combined to take advantage of new opportunities.

Training also increases the motivation to be proactive by increasing employee self-efficacy. Confidence in one's ability to achieve a task-related goal is positively related to engagement of the task, as well as actual performance of the task (Bandura, 1991; Gist, 1987). Furthermore, a person's confidence that he or she can perform well in a broad range of roles, a variable referred to as role-breadth efficacy, is positively related to adaptation and proactivity (Griffin, Neal, & Parker, 2007). Training can be utilized to increase self-efficacy for successfully completing a particular task, or it can focus on developing broader competencies, such as interpersonal or problem-solving skills, which will increase self-efficacy for performing a broader set of roles. Thus, both the knowledge and the confidence gained

from training will be instrumental for creative and proactive behaviors.

Proposition 2: HPWS training practices are positively related to the ability and motivation to be proactive.

### Empowerment Practices

Empowerment practices will lead to greater motivation and opportunity to engage in proactive behaviors. Empowerment is described as a psychological experience whereby individuals are intrinsically motivated to execute their work roles. Empowered individuals are actively focused on their work and feel greater self-efficacy (i.e., competence) for making decisions that influence work outcomes (Spreitzer, 1995). HPWS implement structural mechanisms that promote empowerment, including decentralization, flexible work assignments, and self-managed teams (Evans & Davis, 2005). The practice of decentralization entrusts employees with greater responsibility and authority as hierarchical control methods are eschewed in favor of lower level decision making. Autonomy frees individuals to experiment with new ways of performing their work, while at the same time allowing them (and perhaps forcing them) to examine their cognitive understanding of their work processes at a deeper level. Research from Eisenberger and Rhoades (2001) demonstrated that feelings of self-determination (i.e., freedom to modify a job, opportunity for independent thought) were positively associated with making novel yet practical suggestions.

Flexible work assignments such as job rotation, enlargement, and enrichment expand the scope and application of employee KSAs (Hackman & Oldham, 1980), and therefore are likely to increase the degree to which employees are willing to perform varied tasks and the degree to which employees feel able to impact work events. Job rotation exposes individuals to varied tasks. Job enlargement augments work horizontally by increasing the breadth of activities, while job enrichment expands work vertically to include greater autonomy for how tasks are accomplished. Individuals who feel confident in their ability to execute a broad set of tasks typically have greater self-efficacy for coping with environmental uncertainty and also feel competent to initiate new work methods (Griffin et al., 2007), which is more likely when individuals have deeper and broader domains of knowledge (Shalley & Gilson, 2004). Indeed, self-efficacy for carrying out a range of task activities is positively associated with proactive idea implementation (i.e., taking care to make improvements) and proactive problem solving (e.g., future oriented responses to address problems) (Parker et al., 2006). Another empowerment practice, self-managed teams, can also lead to greater psychological empowerment. Research by Kirkman and Rosen (1999) found empowered work teams were proactive in making adjustments when expectations were not met, and that self-managed teams were continually looking for better ways to perform their tasks. In sum, empowerment practices afford autonomy in decision making (opportunity)

and enhance the self-efficacy (motivation) for employees to be proactive.

Proposition 3: HPWS empowerment practices are positively related to the motivation and opportunity to be proactive.

### Communication

Empowerment programs are accompanied by communication practices that facilitate the flow of information downward, upward, and laterally through the organization (Evans & Davis, 2005; Pfeffer & Veiga, 1999). Findings from Mom et al. (2009) demonstrate that communication vertically and horizontally within an organization, when it includes both complementary and nonredundant information, is associated with employees exploiting existing work process and also exploring alternative opportunities. Use of open communication creates the ability and motivation to be proactive. Sharing information concerning business goals, strategies, and results provides employees at lower levels of the organization with information needed to effectively make decisions and act upon them. In addition, bottom-up communication practices provide employees with participation and voice opportunities. Proactivity is likely when practices such as open book management foster feelings of ownership that align employee and management interests (Aggarwal & Simkins, 2001).

Zollo and Winter (2002) detail two communication processes that function as learning mechanisms that enable routines to evolve: knowledge articulation and knowledge codification. Knowledge articulation involves deliberate practices (e.g., discussions, debriefings) to communicate consequences and implications of work processes. Knowledge codification concerns creating written tools (e.g., manuals, decision support systems) that communicate the “know how” and “know why” (p. 349). Such practices provide the needed knowledge (ability) and an understanding of why changes might be necessary (motivation), leading to more proactive behavior. Over time, open communication channels will produce modifications in the way people understand work routines, followed by changes in the way that work routines are actually performed. For instance, a case study of a consumer products company by Swift and Hwang (2008) revealed that multilateral communication (vertical and horizontal) flows among marketing employees and sales representatives were vital in revising the components of the company’s marketing routines. Existing work processes were exploited to be more effective, and new processes grew out of old routines as new goals were explored.

Proposition 4: HPWS communication practices are positively related to the ability and motivation to be proactive.

### Compensation

Compensation practices are instrumental for attracting employees who fit job and organizational needs, and for directing employee effort and behaviors (Gerhart & Milkovich,

1992). Accordingly, compensation practices have the potential to attract employees with higher ability to be proactive, and then lead to higher motivation to engage in proactive behaviors. The compensation practices of HPWS create a performance orientation by paying above market wages and incorporating contingent rewards into the compensation structure. The first aspect of HPWS compensation practices, above-average compensation, attracts candidates possessing high levels of KSAs. Pay level may also impact motivation to be proactive by creating more commitment to one’s employer (Levine, 1993) and producing a felt obligation to work on behalf of the organization (Rhoades & Eisenberger, 2002).

HPWS also emphasize performance through contingent pay. Incentives tied to individual goal accomplishment can increase individual-level performance (Rodgers & Hunter, 1991), while group-based incentives such as gain sharing can increase group-level productivity, often by encouraging cooperative behavior (Schuster, 1984). When individual-level rewards are used in conjunction with a system that communicates expectations for proactivity, individuals are likely to learn that creative efforts are desired (Shalley & Gilson, 2004). Contingent rewards can increase levels of creativity when supported by a system of related HPWS practices that promote feelings of self-determination (i.e., perceived competence and the freedom act) (Eisenberger & Rhoades, 2001). For instance, Arthur and Aiman-Smith (2001) found gain sharing was positively associated with employee suggestions for process improvements (i.e., the sequence and content work) and product design changes (i.e., the look or composition of a product). Moreover, the number of suggestions for “breaking out of existing patterns of thoughts” (p. 739) increased over time as employees apparently engaged, individually and cooperatively, in deeper explorative cognitive inquiry. When individuals believe that high levels of performance will be rewarded, they become more interested in their jobs and proactively make suggestions for improvements (Eisenberger & Rhoades, 2001). The compensation practices of HPWS thus increase the likelihood of organizations having highly skilled employees who are motivated to take the initiative in shaping how work is accomplished so that goals can be achieved.

Proposition 5: HPWS compensation practices are positively related to the ability and motivation to be proactive.

### HPWS, THE SOCIAL STRUCTURE, AND THE FLEXIBILITY OF WORK PROCESSES

Organizational work processes are characterized by interdependent employees, and thus changes in work routines require interaction and knowledge exchange among those individuals who are enacting the routine. Individual actions do not take place in isolation but rather employees are participants embedded in a network of social relationships. Because of the need for interaction and knowledge exchange, social structure dynamics can either restrict or enable the flexibility of routines

(Howard-Grenville, 2005; Parmigiani & Howard-Grenville, 2011). The structure of relations among employees, as well as the quality of their exchange relationships, will impact their capacity to produce innovative changes (Collins & Smith, 2006; Nahapiet & Ghoshal, 1998). As noted in the theoretical background review, research indicates that HPWS influence the social structure of work within organizations (Collins & Smith, 2006; Evans & Davis, 2005). Thus, our attention is on how the social structure further enables individual proactivity and ultimately the flexibility of work processes. For this reason, we draw upon social capital theory and strategic human resource management (SHRM) research that examines the nature and quality of an organization's social structure. Social capital refers to the resources that reside within social networks. A central assumption of social capital theory is that these resources can be called upon to initiate action (Leana & Van Buren, 1999; Oh, Labianca, & Chung, 2006; Uhl-Bien, Graen, & Scandura, 2000). HRM practices influence the social context of work by affecting how work is structured, employee interaction patterns, and the quality of interaction among employees (Collins & Smith, 2006; Leana & Van Buren, 1999). In particular, HPWS nurture three productive social resources, including bridging network ties, generalized norms of reciprocity, and shared mental models (Evans & Davis, 2005). We focus on how these social resources further enhance individual proactivity and flexible work processes over and above the direct effects of HPWS.

### Bridging Network Ties

Organizations can be described as distributed stocks of knowledge and thus the knowledge needed to enact routines is often distributed between individuals. Bridging network ties provide connections to information or expertise: ties that are conduits for individuals to access the novel or unique knowledge needed for experimentation (Nahapiet & Ghoshal, 1998; Perry-Smith, 2006). HPWS create bridging network ties via the use of flexible job assignments and self-managed teams. These practices encourage individuals to build connections beyond their immediate work area (Evans & Davis, 2005). Bridging ties are beneficial for creativity because they provide recipients with nonredundant connections and links to information they would not be likely to access elsewhere (Perry-Smith & Shalley, 2003). This suggests that individuals with bridging ties to persons are more apt to be flexible and adaptive because they have the ability to identify opportunities and threats, and to access the information needed to respond to them.

Flexible work assignments and self-managed teams facilitate the development of bridging ties, which in turn enhance the ability and opportunity for proactive behaviors. Research demonstrates that higher degrees of connectedness (i.e., the range of one's network) is associated with managers simultaneously being able to acquire (a) related and complementary knowledge used for exploitative activities and (b) new and diverse knowledge used for explorative activities (Mom et al., 2009). Lazaric

and Denis's (2005) study revealed that social network linkages were essential for the transferring information between routine participants as the company implemented new quality controls. Ties, especially to nonredundant persons, are associated with creativity related to inventive applications of existing technology, new approaches to problems, and developing new visions (Perry-Smith, 2006).

**Proposition 6:** HPWS empowerment practices of flexible job assignments and self-managed teams positively influence network ties, which positively affect the ability and opportunity to be proactive.

### Generalized Norms of Reciprocity

HPWS staffing, training, and compensation practices emphasize screening for compatibility, building trust, and rewarding cooperative efforts, which in turn cultivate relationships characterized by generalized norms of reciprocity (Evans & Davis, 2005). Generalized norms of reciprocity describe high-quality relationships characterized by low concern for contractual type exchanges and high levels of mutual interests among parties (Sahlins, 1972; Sparrowe & Liden, 1997). In relationships characterized by generalized norms of reciprocity, individuals share mutual interests and interact with others aware of those mutual interests. Concern for equivalence is low, whereby interactions go beyond formally specified expectations. Concern for immediacy of reciprocation is also low, such that individuals are willing to wait for felt obligations to be met. Relationships distinguished by generalized norms of reciprocity embody a type of altruistic interest (e.g., munificence and goodwill) (Sparrowe & Liden, 1997) that is associated with risk taking and experimentation (Nahapiet & Ghoshal, 1998). Generalized norms of reciprocity lead to more frequent cooperative interactions and ultimately greater openness of communication (Lewicki & Bunker, 1996). A positive social structure also provides a form of psychological safety (cf. Edmondson, 1999) that is critical to individuals feeling comfortable in taking risks and trying new methods of work. Research demonstrates a positive association between feeling supported by peers and individuals engaging in creative activities for modifying work processes (e.g., integrating ideas from multiple sources and searching for novel methods) (Gilson & Shalley, 2004).

Individuals within work routines often possess complex sets of knowledge. However, unless they are willing to communicate this knowledge freely, it is unlikely that routine exploitation and routine exploration will occur. Reluctance to cooperate and unwillingness to share information can be considerable impediments to constructive changes in work routines (Howard-Grenville, 2005; Lazaric & Denis, 2005). Beyond the willingness to share information, it is important that routine participants feel comfortable with experimentation. Experimentation with established means of work is an inherently risky endeavor because work process experiments may not initially produce the desired outcomes (Salvato, 2009).

The socioemotional context is important because individuals feeling disconnected from their peers tend to be reluctant to express alternative ideas, and if one does express divergent thinking in this context, the group typically discounts the merits of variation (Branzei & Fredette, 2008). With generalized norms of reciprocity existing among work process members, proactive deviations from the status quo will more likely be accepted as constructive modifications. Hence, generalized norms of reciprocity will increase the motivation and opportunity to be proactive in modifying work processes.

Proposition 7: HPWS staffing, training, and compensation practices positively influence generalized norms of reciprocity, which positively affect the motivation and opportunity to be proactive.

### Shared Mental Models

Shared mental models are overlapping or similar knowledge structures concerning job responsibilities, tasks, knowledge of peers' KSAs, and attitudes and beliefs (Cannon-Bowers & Salas, 2001). HPWS staffing, empowerment, communication, and compensation practices can promote the development of shared mental models by signaling and reinforcing desired behaviors and expectations (Evans & Davis, 2005; see also Leana & Van Buren, 1999). These practices emphasize, respectively, selection based on skills and compatibility, participation in determining how work is accomplished, collective outcomes, and aligning individual and organizational goals. With shared mental models, the opportunity to be proactive is heightened due to the mutuality of work expectations and assumptions. Background heterogeneity within one's network is positively associated with creativity (Perry-Smith, 2006), and shared mental models are believed to attenuate some of the difficulties in understanding, coordinating, and integrating disparate resources in new applications (Evans & Carson, 2005; Nahapiet & Ghoshal, 1998). Without shared mental models, communication and integration of knowledge between individuals with heterogeneous functional experiences and KSAs become more difficult (Evans & Carson, 2005).

With shared mental models, individuals can anticipate the value of knowledge exchange, and subsequently are better able to actually engage in knowledge exchange. When individuals possess knowledge that is perceived as valuable by other members in the work routine, they are more likely to have influence in shaping how the work processes are carried out. Mental models make it easier to access information needed to make predictions, understand phenomena, and decide upon which actions to take (Rouse & Morris, 1986). For example, Howard-Grenville's (2005) ethnographic study of a chip manufacturer details how company work processes evolved as individuals realized that current conditions required modifying existing routines (e.g., routine exploitation), or when persons cognitively projected a routine into the future in order to recognize new opportunities

(e.g., routine exploration). Undergirding these realizations of routine flexibility was a common "generic roadmap" (p. 623). This widely understood framework of standard operations functioned as a shared mental model for how manufacturing alternatives were considered and evaluated. Thus, understanding of how one's actions affect the execution of routines and what outcomes are expected or desired enables the proactive modification of work processes.

Proposition 8: HPWS staffing, empowerment, communication, and compensation practices positively influence shared mental models, which positively affect the ability to be proactive.

### INDIVIDUAL PROACTIVITY AND FLEXIBLE WORK PROCESSES

We have argued that HPWS create a workforce that has the ability, motivation, and opportunity to proactively modify existing work processes to exploit existing opportunities or to experiment with work processes to explore new opportunities. Work processes are enacted in the routines carried out by employees as they execute their job tasks and responsibilities (Salvato & Rerup, 2011). Thus, organizational routines are foundational elements of organizational behavior (Cyert & March, 1963; Nelson & Winter, 1982). While work routines are often valued for their stability and certainty, they can evolve and change because individuals are capable of reflecting on past experiences, learning, and then adapting (Feldman & Pentland, 2003). Furthermore, proactive active employees are less accepting of the status quo and seek to improve their circumstances by taking self-initiated action (Parker et al., 2006). These changes, often necessary for efficiency and effectiveness, become possible when employees are engaged participants in their jobs such that they consciously consider how existing work process can be improved or leveraged. Work processes become more flexible when employees are competent to implement change, are inspired to take action, and have opportunities to actually enact change.

Proposition 9: The ability, motivation, and opportunity for individual proactivity are positively related to flexible work processes.

### DISCUSSION AND FUTURE DIRECTIONS

The association between systems of HR practices and firm performance is well documented (Combs et al., 2006), yet the explanatory mechanisms by which this transpires are not clear (Buller & McEvoy, 2012; Guest, 2011). One recommendation to address this gap is to consider proximal variables with direct connections to HR practices (Paauwe, 2009). Employees are the primary and direct beneficiaries of HR practices, and thus understanding performance outcomes associated with HR necessitates an examination of variables such as employee performance, motivation, and the nature of work. Our main



contribution is illuminating how HPWS contribute to employee proactivity, and how proactivity ultimately leads to more flexible work processes. Routines are uniquely positioned as a construct connecting individual proactivity with flexible work processes because routines encapsulate the processes by which work is accomplished (Cyert & March, 1963).

Wright and Snell (1998) discuss flexibility as originating from HRM practices that provide a base of varied employee behavioral scripts (i.e., sequenced understandings of expected actions). Likewise, organizational routines research traces the root of adaptive dynamic capabilities to individual actions (Salvato, 2009). Employees who apply a variety of behavioral scripts rather than simply following standard operating procedures enhance the ability to alter work processes in response to environmental dynamics. In other words, organizational flexibility is rooted in the cognitive and performance flexibility of employees who are responsible for carrying out everyday activities and executing organizational strategy. Flexible work processes, which we describe in the forms of routine exploitation and routine exploration, represent proximal outcomes that capture how individual and collective actions are translated into higher levels of flexibility.

The model developed here extends our understanding of how and why HPWS impact organizational outcomes. As noted by several authors (e.g., Buller & McEvoy, 2012; Paawe, 2009), understanding the influence of HRM systems will require focused questions concerning the process by which HRM impacts performance. By focusing not only on individuals but also on how work is accomplished and evolves, routines provide a unique lens that integrates multilevel considerations. The models illustrates that the ability, motivation, and opportunity to act are realized through individual proactivity toward their work activities. The content of HR practices is important, but the influence of practices becomes evident within the social context of organizational routines. Our model is consistent with research recognizing that organizations are comprised of multiple interacting actors and that HRM systems affect not only individuals but also work processes, and ultimately the strength of an organization's dynamic capabilities (Buller & McEvoy, 2012; Wei & Lau, 2010).

An ongoing point of discussion, perhaps even contention in some instances, is whether there is a universal set of HRM best practices or whether the effectiveness of HRM is dependent upon environmental and strategic contingencies. Meta-analytic evidence provides support for the universalist perspective (Combs et al., 2006). Alternately, there are many logical arguments to support the contingency perspective. Though HPWS align with a best practices approach, our proposed framework represents categories of practices that can be viewed through the contingency perspective. In arguing that effective HRM systems emerge from the confluence of strategic and environmental dynamics, Buller and McEvoy (2012) state that "the best companies can hope for is to design HRM practices that engage the organization, work groups and ultimately

individual employees who possess the requisite abilities, motivation, and opportunities in the ongoing pursuit of complex, dynamic and fragile priorities" (p. 53). Though Combs et al. (2006) found support for the universalist perspective, their findings also revealed stronger effects in manufacturing industries as compared to service industries. Manufacturing was reasoned to be more complex and thus more reliant upon adept and motivated human capital.

HPWS emphasize an applied learning orientation, where practices underscore the importance of KSAs, provide opportunities to act, and motivate employees to do so (Combs et al., 2006), thus enabling organizational responsiveness to competitive environments (Evans & Davis, 2005; Wright & Snell, 1998). Findings from Wei and Lau (2010) reveal that externally and internally aligned HPWS positively influence an organization's adaptive capability (i.e., the ability to learn, change, and adapt). HPWS may thus be considered as a type of "enabling formalization" whereby practices are designed to facilitate learning and responsiveness and ultimately the renewal of dynamic capabilities (Adler & Borys, 1996; Zollo & Winter, 2002). By delineating the process of how HPWS enable the exploitation and exploration of work processes, our model may provide a partial reconciliation of the universalist–contingency debate.

It would be beneficial to empirically examine the propositions within our model. Complex theoretical models present methodological challenges that traditional cross-sectional research does not sufficiently address. The first challenge researchers will face is operationalization of the distinct constructs in our model: (a) the ability, motivation, and opportunity for individual proactivity and (b) flexible work processes. Existing literature and developed scales will be a good starting point for departure in this endeavor. For instance, the measure of individual proactivity developed by Parker et al. (2006) could be modified to assess to what extent individuals feel capable (ability), engaged (motivated), and empowered (opportunity) to take initiative and solve problems concerning their job tasks. Measures of routine exploitation and exploration could be adapted from existing scales focused on the macro firm level (e.g., Lubatkin, Simsek, Ling, & Veiga, 2006). There is at least one study that followed such an approach, creating a scale to assess the exploitative and explorative actions of individual managers (Mom et al., 2009). Such instruments could be adapted to measure these constructs at the work routine level, and then perhaps cue respondents by asking them to describe their most important work routines, and then asking them to respond to the scale items.

Another issue to address is the possibility that the different categories of practices may interact with one another. A central assumption of SHRM research is that a bundle of practices can create synergistic effects. While analyzing the practices separately allowed us to readily consider differential and multiple outcomes (e.g., communication practices impact both the ability and the motivation to be proactive), this parsimony

of explanation obscures possible interactions among the categories. Future researchers may wish to consider how and why the different types complement one another.

A complete test of our model will necessitate multiple methods and sources of information. While it seems unlikely that any one study could provide a complete test of the model, a multimethod, multisource approach, perhaps used across multiple studies, could be used to empirically test our propositions. HR managers can readily provide information regarding the presence of HPWS practices, and a plethora of scales already exist that could be adapted to particular settings. As an example, Gardner, Wright, and Moynihan (2011) developed an inventory to assess skill-enhancing, motivation-enhancing, and opportunity-enhancing practices. However, meta-analytic results indicate a lack of an empirically consistent measures, with 22 different individual HR practices being considered part of HPWS across a range of studies, and with systems ranging from two to five practices in aggregate (Combs et al., 2006). The conceptualization we build upon reflects common categories of practices found in reviews of the literature (Evans & Davis, 2005; Lepak et al., 2006). Focal employees, peers, and supervisors, as compared to HR managers, however, are closer to the actual implementation and resulting effects of HR practices. It may therefore be useful to have focal employees provide information about ability, motivation, and opportunities to engage in routine exploitation and exploration. Analysis of the routine social structure would benefit from the techniques of social network researchers that draw data from a focal employee's network of relationships. Measurements of ties, norms of reciprocity, and shared mental models (Tsai & Ghoshal, 1998) are more fully assessed through multiple sources of data.

Case study research methods, which focus on generating a rich understanding of the organizational settings, are also applicable to testing the proposed model. Advantages of case methods, which can be qualitative, quantitative, or both, include reviewing historical events and detailed probing of the research propositions (Eisenhardt, 1989). Moreover, the HPWS-flexible work processes relationship could be compared across case studies covering different industries (e.g., manufacturing and services) to assess the universalist versus contingency perspectives of HRM systems. Combs et al. (2006) caution that "context matters" (p. 521) concerning the effect size of HPWS. The investigative techniques of case-study research would provide a clearer picture of the model's causal mediators in varied conditions.

In closing, our model and propositions take further steps toward understanding the relationship between systems of HR practices and organizational performance. It is widely accepted that successful organizations have the ability to reconfigure their work processes in response to threats and opportunities. Focusing on proximal outcomes that are directly affected by HPWS brings this relationship into clearer focus. Ultimately, the proposed model should guide future studies in creating

a richer understanding of how and why HPWS influence the competitiveness of organizations.

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