UNDERSTANDING EMPLOYEES' PERCEPTIONS OF HUMAN RESOURCE PRACTICES: EFFECTS OF DEMOGRAPHIC DISSIMILARITY TO MANAGERS AND COWORKERS

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Strategic HRM researchers have increasingly adopted an employee perspective to understand the influence of HR practices on employee outcomes and have called for studies to explain variability in employees' perceptions of HR practices. To address this research need, we used the social information processing perspective to examine the contextual influence of managers and coworkers on employees' perceptions of HR practices and explore demographic dissimilarities as boundary conditions of the contextual influence. Conducting research in two organizational settings, we found that both manager-perceived and coworker-perceived HR practices were positively related to employees' perceptions of HR practices. The results also revealed that employee demographic dissimilarity to coworkers in terms of age and organizational tenure weakened the positive relationship between coworker-perceived and employee-perceived HR practices. However, the relationship between manager-perceived and employee-perceived HR practices was not influenced by demographic dissimilarities. © 2015 Wiley Periodicals, Inc.

Keywords: perceptions of HR practices, demographic dissimilarity

Over the past three decades, numerous strategic human resource management (HRM) studies have substantiated the benefits of investing in human resource (HR) practices. Researchers have demonstrated that HR practices intended to improve employee competence, motivation, and opportunity to perform are positively related to organizational performance (e.g., Delery & Doty, 1996; Guthrie, 2001; Huselid, 1995). A fundamental rationale of the performance effect of HR practices is that organizations can achieve strategic objectives by using HR practices to direct employee behaviors (e.g., Jiang, Lepak, Hu, & Baer, 2012; Messersmith, Patel, Lepak, & Gould-Williams, 2011; Takeuchi, Lepak, Wang, & Takeuchi, 2007). From a managerial perspective, strategic HRM research is valuable for understanding the extent to which HR practices can influence organizational performance. For example, a meta-analysis

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of 92 studies revealed that one standard deviation increase in high-performance work systems (HPWS) was related to a .20 standard deviation increase in firm performance (Combs, Liu, Hall, & Ketchen, 2006).

Despite the progress in the macro-level strategic HRM research from a managerial focus, growing attention has been recently paid to understanding the effect of HR practices from an employee perspective (Bowen & Ostroff, 2004; Lepak & Boswell, 2012; Nishii & Wright, 2008; Paauwe, Wright, & Guest, 2013). The rise of this research stream stems from a criticism that consideration of employees' actual experience of HR practices in previous strategic HRM research has been lacking. Even though there is a long-standing assumption that employee-related factors act to link HR practices to firm performance outcomes, surprisingly few studies have taken into account of the role of HR practices as experienced by individual employees. This omission is critical, as several studies have recently shown that it is employees' perceptions and experiences of HR practices rather than actual HR practices or manager-rated HR practices that have a closer relationship with employees' behaviors and outcomes (e.g., Aryee, Walumbwa, Seidu, & Otaye, 2012; Den Hartog, Boon, Verburg, & Croon, 2013; Jensen, Patel, & Messersmith, 2013; Kehoe & Wright, 2013; Liao, Toya, Lepak, & Hong, 2009), reinforcing the need to include employees' perceptions in strategic HRM research, especially when examining the impact of HR practices on employee outcomes.

Those recent studies from the employee-based perspective suggest that employees may not perceive HR practices as reported by managers, and different employees may perceive the same set of HR practices in a variety of ways and thus have different perceptions of HR practices from each other as well as from their organizations' intentions (Nishii & Wright, 2008). For example, focusing on employees' perceptions of HR practices, Liao and colleagues (2009) reported that manager-perceived HR practices were not significantly related to employee-perceived HR practices after controlling for demographic characteristics, and 83% of the variance in employees' perceptions resided among employees within the same work units. Consequently, such empirical evidence raises important questions faced by

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strategic HRM researchers: Why do employees exposed to the same HR practices report their perceptions of HR practices differently? What factors shape employees' perceptions of HR practices? Under what conditions, are employees' HR perceptions more or less likely to be influenced by those factors? Without clear answers to this set of questions, it is difficult for organizations to understand and manage employees' HR perceptions.

Understanding the variations in employees' perceptions of HR practices is also related to the concept of the strength of the HR system. Bowen and Ostroff (2004) introduced this construct and argued that firms need to establish a strong HR system that sends consistent and unambiguous messages to help employees share a common understanding of what attitudes and behaviors are expected and rewarded. This shared perception is extremely important if firms want to enhance desired organizational goals through accumulated employees' attributes. Without a strong HR system, employees may construct their own understanding of HR practices, which may or may not be consistent with organizational intentions. Consequently, a large variation in employees' perceptions of HR practices is likely to exist and thus makes it difficult to achieve organizational strategic goals through employees' collective efforts and behaviors. Given the importance of employees' shared perceptions of HR practices, it is urgent to understand when employees are more likely to interpret HR practices similarly among themselves and with important others in organizations.

Researchers have recently started to devote effort to understanding how employees experience and perceive HR practices. For example, Den Hartog and colleagues (2013) identified communication quality between managers and employees as a moderator between manager-perceived and employee-perceived HR practices. This focus is not surprising due to the important role which line managers play in translating and implementing HR practices in contemporary organizations (Purcell & Hutchinson, 2007). However, researchers have pointed out that managers are not the only source through which employees can get access to HR information; other contextual factors such as coworkers may also influence how employees perceive HR practices due to their social interactions and common experiences within the same work environment (Nishii & Wright, 2008). Viewed together, the current study highlights the potential for integrating multiple sources of HR information (i.e., HR perceptions of managers and coworkers) to understand employees' perceptions of HR practices.

To extend previous research on this topic, this research draws upon social information processing theory (Salancik & Pfeffer, 1978) to explore the influence of HR perceptions held by managers and held by coworkers on employees' perceptions of HR practices. Social information processing theory (Salancik & Pfeffer, 1978) suggests that individuals rely on information gathered from others in their workplace to form their perceptions of the organization's practices. We expect that as important members who have close interactions with the focal individuals, both managers and coworkers may have an impact on employees' perceptions of HR practices. Furthermore, we argue that the strength of such impact depends on the extent to which managers and coworkers have an effective connection with the focal individual employees. Specifically, we consider a set of moderators that may alter the interactions between employees and other organizational members and influence the credibility and relevance of the information received from others: demographic dissimilarity to managers and coworkers. Examining the moderating effect of demographic dissimilarity is based on Nishii and Wright's (2008) argument that employees' personal attributes (e.g., personality, values, and demographic characteristics) along with their interactions with significant others (e.g., managers and coworkers) may influence the extent to which they collect and process HR information from external environment. As demographic dissimilarity may affect interpersonal attraction (Byrne, 1971) and interaction (Lincoln & Miller, 1979; Tsui & O'Reilly, 1989; Zenger & Lawrence, 1989), we propose that demographic dissimilarity in terms of age, gender, education, and organizational tenure will moderate the influence of managers and coworkers on employees' perceptions of HR practices.

Consistent with previous research on this topic (e.g., Aryee et al., 2012; Den Hartog et al., 2013; Liao et al., 2009), we define HR perceptions as the extent to which employees perceive HPWS, which include such practices as selective staffing, comprehensive training, developmental performance appraisal, performance-based pay, internal promotion, and work involvement, are available in organizations. HPWS is one of the most studied topics in strategic HRM literature (Posthuma, Campion, Masimova, & Campion, 2013) and was found to be positively related to employee and organizational outcomes (Jiang, Lepak, Hu, et al., 2012). In the rest of the article, we first adopt social information processing perspective to propose the theoretical model depicted in Figure 1 and then discuss how we tested the hypotheses by conducting two studies.

Theoretical Background and Hypotheses

Social Information Processing and Employees' Perceptions of HR Practices

The social information processing is a theoretical perspective emphasizing the influence of context on individuals' attitudes and behaviors (Salancik & Pfeffer, 1978). According to this theory, individuals are motivated to communicate with others in order to develop stable and unambiguous interpretations of events and their meanings and people use information collected from others in their social environment to guide their perceptions, attitudes, and behaviors. Social information processing theory has been widely used to explain the influence of social environment (e.g., leaders and coworkers) on employees' perceptions (e.g., perceptions of work-family conflict; Bhave, Kramer, & Glomb, 2010), attitudes (e.g.,
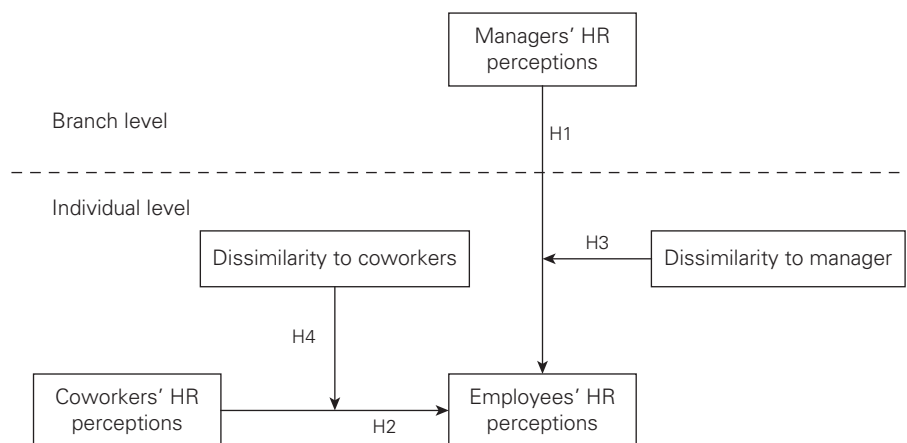
FIGURE 1. Theoretical Model of the Relationships of Managers' and Coworkers' Perceptions of HR Practices with Employees' Perceptions of HR Practices

job satisfaction; O'Reilly & Caldwell, 1985), and behaviors (e.g., workplace aggression; Glomb & Liao, 2003) in organizations. It has also been applied to explain the emergence of shared perceptions among employees as they are exposed to similar information about work environment and engage in coordination and communication with each other to process the information (e.g., justice climate; Liao & Rupp, 2005; service climate; Lam, Huang, & Janssen, 2010).

The theory of social information processing suggests that it is reasonable to expect the influence of social environment on employees' perceptions of HR practice. Indeed, Nishii and Wright (2008, p. 239) maintained that "social processes surely play a role in what aspects of the HR practices employees attend to, how they are interpreted, and the reactions that they feel are appropriate." This notion has been reemphasized in their recent work—"social information may play a significant role in how individuals perceive and interpret the practices" (Wright & Nishii, 2013, p. 106). In work settings, managers and coworkers may be viewed as composing the immediate social environment for employees, and HR perceptions of managers and coworkers are likely to relate to employees' perceptions for at least three reasons.

First, research on social comparison (Festinger, 1954) and social information processing (Salancik & Pfeffer, 1978) has documented that people rely on others to help define reality and are influenced by those with whom they have direct interactions. This perspective suggests that managers and coworkers provide the context within which employees can form their own perceptions of HR practices (Aryee et al., 2012; Den Hartog et al., 2013). In particular, the statements by managers and coworkers about HR practices can help employees understand what kinds of practices are used in the organization. Employees may also communicate and consult with managers and coworkers when they have uncertainties or ambiguities of HR practices (Bowen & Ostroff, 2004). Through these interactions, employees may directly gather HR information from managers and coworkers and thus are likely to have similar perceptions of HR practices as their managers and coworkers.

Second, managers and coworkers can influence employees' HR perceptions by providing implicit cues. By interacting with managers and coworkers, employees may observe how HR practices are applied to other employees. Even though employees may not directly experience certain HR practices, they may still get to know how those practices are implemented in the organizations. Moreover, the social context composed of managers and coworkers provides a reality check of employees' HR perceptions (Asch, 1951; Deutsch & Gerard, 1955). After sharing their understanding of HR practices with other organizational members, employees' initial perceptions of HR practices can be changed by their managers and coworkers through communication and information exchange.

Third, managers and coworkers can also affect employees' HR perceptions by structuring employees' attentional processes (Salancik & Pfeffer, 1978). By frequently talking about certain HR practices, managers and coworkers can make those practices salient to employees and direct more of their attention to those practices. For example, if managers and coworkers repeatedly mention about the training activities their organization provides to improve employees' human capital, employees may not only consider extensive training as an important feature of the organization's HR system but also believe developing human capital through training practices is an important concern for their development and growth. This will guide employees to pay more attention and attach more importance to the information about training practices.

Consistent with social information processing theory, the argument of the strength of the HR system also helps explain why employees tend to share their perceptions of HR practices with managers and coworkers. Bowen and Ostroff (2004) suggested that employees are likely to share a common perception of work environment when there is a strong HR system. This is because a strong situation defined by the HR system can send consistent messages about HR practices to employees who may engage in numerous cycles of sense-making processes (e.g., information acquisition, interpretation, sharing, and verification) to reach a shared understanding of the HR system. Based on Bowen and Ostroff's (2004) work, Messersmith and colleagues (2011) have viewed HPWS as a strong system and found that employees are likely to share their perceptions of HPWS within the same unit. Their findings were echoed by other scholars who found significant relationship between HR practices reported by managers and perceived by employees (Aryee et al., 2012; Den Hartog et al., 2013; Jensen et al., 2013) as well as meaningful proportion of HR perceptions

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shared by employees (Kehoe & Wright, 2013). Given the theoretical rationale and empirical evidence, we propose positive relationship between manager-perceived and coworker-perceived HR practices and employee-perceived HR practices.

Hypothesis 1: Managers' perceptions of HR practices will be positively related to employees' perceptions of HR practices.

Hypothesis 2: Coworkers' perceptions of HR practices will be positively related to employees' perceptions of HR practices.

Moderating Effect of Demographic Dissimilarity

Even though employees are expected to share similar perceptions of HR practices to their managers and coworkers, theoretical arguments (Lepak & Boswell, 2012; Nishii & Wright, 2008; Wright & Nishii, 2013) and empirical findings (e.g., Liao et al., 2009) have shown that this is not always the case in organizations. In particular, Nishii and Wright (2008) proposed a variety of factors at the individual level, the job level, and the group level that may cause variations in employees' perceptions of HR practices. Among the various factors at different levels of analyses, employees' demographic dissimilarity to managers and coworkers is particularly relevant to understand the extent to which employees may share their perceptions of HR practices with managers and coworkers. As we discuss below, demographic dissimilarity to others may influence the frequency and quality of interactions between employees and other organizational members and affect the credibility and relevance of information received from different sources, and thus may influence the alignment between the perceptions of HR practices of managers and coworkers and employees' perceptions of HR practices.

Demographic dissimilarity refers to the difference between employees and others in their demographic characteristics (e.g., age, gender, education level, and organizational tenure), including dyadic dissimilarity to managers (e.g., Liden, Wayne, & Stilwell, 1993; Tsui & O'Reilly, 1989) and dissimilarity to their coworkers (e.g., Bhave et al., 2010; Liao, Chuang, & Joshi, 2008; Liao, Joshi, & Chuang, 2004). We first propose the moderating effect of dyadic dissimilarity to managers on the relationship between manager-perceived and employee-perceived HR practices. According to the similarity-attraction paradigm (Byrne, 1971), similarity in demographic characteristics may increase interpersonal attraction and

frequency of interactions (Lincoln & Miller, 1979; Tsui & O'Reilly, 1989; Zenger & Lawrence, 1989). Employees with high-level dyadic similarity may find it easier to interact with their managers and, as a result, have more opportunities to obtain HR information from managers and share similar HR perceptions to managers. In contrast, employees who are dissimilar to their managers may feel psychologically distant from their managers (Wiersema & Bird, 1993) and tend to feel reluctant to communicate with managers about HR practices. In these cases, the HR perceptions of managers and employees may be more weakly related to each other. Therefore, we expect employees' dyadic dissimilarity to their managers to weaken the positive relationship between managers' perceptions and employees' perceptions of HR practices.

Second, demographic similarity can influence the bond strength between employees and their managers (Miller, 1978), which may affect the extent to which employees believe the information provided by managers and integrate such information into their HR perceptions. Scholars have found that employees and managers were more likely to develop mutual trust and liking relationships when they shared demographic similarity (Green, Anderson, & Shivers, 1996; McAllister, 1995; Pelled & Xin, 2000; Tsui & O'Reilly, 1989). Employees may find managers with similar attributes more honest and trustworthy, and thus be more likely to embrace the information communicated to them by managers. On the contrary, employees who are demographically dissimilar to their managers may be less likely to trust their managers. The lack of trust may further lead employees to question the reliability of the HR information offered by managers. For the above two reasons, we propose the moderating effect of dyadic dissimilarity on the relationship between manager-perceived and employee-perceived HR practices in the following:

Hypothesis 3: The positive relationship between managers' perceptions of HR practices and employees' perceptions of HR practices will be moderated by dyadic

> *Demographic dissimilarity to others may influence the frequency and quality of interactions between employees and other organizational members and affect the credibility and relevance of information received from different sources, and thus may influence the alignment between the perceptions of HR practices of managers and coworkers and employees' perceptions of HR practices.*

dissimilarity such that the positive relationship will be stronger when the dyadic dissimilarity is low than when it is high.

We also expect the relationship between coworkers' perceptions and employees' perceptions of HR practices becomes stronger when they are more similar in demographic characteristics. First of all, people with high demographic similarity may have similar work-related needs and motives, and therefore are more likely to search for similar HR practices, which may set a common basis for them to perceive and interpret HR practices. In addition, demographic similarity can facilitate communication and information sharing between employees and their coworkers (Chatman & Flynn, 2001; Zenger & Lawrence, 1989). Through a series of daily interactions, employees are likely to collect information from similar coworkers to develop their understandings of HR practices. Employees who share demographic similarities with their coworkers tend to develop trust in coworkers (Chattopadhyay, 1999) and count on coworkers to share reliable information about HR practices. Moreover, social information processing theory suggests that employees do not attach equal weight to the information received from different sources (Deutsch & Gerard, 1955; Festinger, 1954) and the extent to which employees integrate external information to understand work environment is dependent on the saliency and relevance of the information (Salancik & Pfeffer, 1978). Because people with similar demographic characteristics may share common background and experiences, the information provided by similar coworkers tends to draw the most attention of employees. Also, employees have a pervasive tendency to compare themselves to similar others to perceive their social environment (Kruglanski & Mayseless, 1990). Thus, employees may find the information obtained from similar coworkers is more relevant to form their own perceptions of HR practices. Just as Salancik and Pfeffer (1978, p. 228) mentioned, "the more similar someone is, the more relevant his or her views for understanding one's own world." In summary, we propose that:

Hypothesis 4: The positive relationship between co-workers' perceptions of HR practices and employees' perceptions of HR practices will be moderated by employee demographic dissimilarity to coworkers; such that the positive relationship will be stronger when demographic dissimilarity is low than when it is high.

We tested our hypotheses by conducting two studies. In Study 1, we tested all hypotheses with a sample of employees working for an insurance company. In Study 2, we examined all hypotheses with a sample of employees working for a governmental agency.

Study 1: Method

Participants and Procedures

We collected data from an insurance company in a province (similar to a state in the United States) located in East China. The insurance company has 29 branches located in different cities of the province. We asked both branch managers and insurance sales agents about the use of HR practices for sales agents in their branches as well as their demographic information via cross-sectional surveys. The sales agents were engaged in work activities such as seeking out new clients, investigating prospective clients' needs, inspecting clients' property, and selling insurance policies to clients. They directly reported their work to their branch managers. With the consent of the top management of this company, we solicited 29 branch managers and 657 sales agents to participate in the survey. Questionnaires were distributed to the respondents with a self-addressed stamped envelope and a cover letter introducing the survey. Respondents were asked to voluntarily complete the survey and directly mail back the completed survey to us. As a result of this approach, the respondents were assured of confidentiality and thus more likely to provide honest responses.

In total, we received the responses from all 29 managers (a response rate of 100%) and 597 sales agents (a response rate of 90.86%). Six of the 597 respondents did not complete the survey. Therefore, the final sample consisted of 29 branch managers and 591 sales agents. In the employee sample, they were 43.49% male with an average age of 30.42 years (SD = 6.80 years) and an average organizational tenure of 7.16 years (SD = 5.98 years). In terms of education level, 47.88% of the employees had a bachelor's degree or above. For the managerial sample, respondents were predominantly male (75.11%). The average age was 36.98 years (SD = 4.95 years), the average tenure was 9.75 years (SD = 2.80 years), and 44.83% of the managers had a bachelor's degree or above.

Measures

Because the measures were originally written in English, all of the items underwent a translation–back translation procedure recommended by Brislin (1980). The items were translated from English to Chinese by a management scholar and then were translated back to English by another management researcher. The discrepancies were

solved by discussion. Each measure was scored on a 5-point Likert response scale ranging from 1 = *strongly disagree*" to 5 = *strongly agree* with high scores representing greater standing on the variables of interest.

Employee-Perceived HR Practices

HPWS have been measured in different ways in previous research of strategic HRM. Even though specific practices composing HPWS may vary from one study to another, researchers have suggested that a valid measure needs to include all three components corresponding to the ability-motivation-opportunity (AMO) model of HRM (Appelbaum, Bailey, Berg, & Kalleberg, 2000; Gerhart, 2007; Jiang, Lepak, Han, et al., 2012; Lepak, Liao, Chung, & Harden, 2006). Consistent with this argument, in Study 1, we used 13 items from previous research (e.g., Chuang & Liao, 2010; Lepak & Snell, 2002) to measure HPWS. The 13 items involved seven typical HR practices composing HPWS (Lepak et al., 2006; Posthuma et al., 2013), such as selective staffing (2 items, e.g., "The branch makes a great effort to select the right person"), extensive training (2 items, e.g., "The branch provides extensive training programs for employees"), developmental performance appraisal (2 items, e.g., "The branch evaluates employees' performance based on their contribution"), internal promotion (1 item, e.g., "Employees have clear career paths in this branch"), performance-based compensation (2 items, e.g., "The branch provides incentives for employees' contribution that exceeds the preset standards of performance"), flexible work design (2 items, e.g., "The branch cares about work-life balance of employees"), and work involvement (2 items, e.g., "The branch encourages employees to make suggestions improving the work"). These items have covered the three components of HPWS (i.e., skill-enhancing, motivation-enhancing, and opportunity-enhancing HR practices). Previous research has suggested that companies may use different HR practices to manage different types of employees (e.g., Lepak & Snell, 1999, 2002), which may lead to different perceptions of HR practices among employees (Nishii & Wright, 2008). Therefore, we targeted HR practices to insurance sales agents at each branch. Following previous multilevel research of strategic HRM (e.g., Aryee et al., 2012; Liao et al., 2009), we used an index of the seven HR practices to represent employee-perceived HR practices. The Cronbach's alpha of this measure was .93.

Manager-Perceived HR Practices

We adopted the same measure of HR practices to assess manager-perceived HR practices. Similarly, we used insurance sales agents as the referent of HR practices and calculated an index to reflect manager perceived HR practices. The Cronbach's alpha of this measure was .96.

Coworker-Perceived HR Practices

To assess coworkers' perceptions of HR practices, we took the average of HR practices scores of all employees of the branch by excluding the score of the focal employee. Specifically, we subtracted the focal employee's score from the sum of HR practices scores of all employees of the branch, and then divided the obtained score by the total number of employees of the branch minus 1. By doing so, we created the score of coworkers' perceptions of HR practices for each individual employee, which is different from the average score of employees' perceptions of HR practices within each branch. A similar approach has been used in previous research that examined the group members' influence on focal employees (e.g., Bhave et al., 2010; Glomb & Liao, 2003; Robinson & O'Leary-Kelly, 1998). One advantage of this procedure is that the relationship between coworker-perceived and employee-perceived HR practices was uncontaminated from the common method bias because the two scores derived from different sources after the focal employee's score was excluded from coworkers' evaluations.

Demographic Dissimilarity

We collected self-reported information regarding each respondent's age, gender, education level, and organizational tenure to create the dyadic dissimilarity to manager and demographic dissimilarity to coworkers. Dissimilarity in terms of these demographic characteristics has been commonly studied in the relational demography literature (e.g., Bhave et al., 2010; Harrison, Price, & Bell, 1998; Tsui & O'Reilly, 1989). We did not include ethnicity dissimilarity and marital dissimilarity in this study because our participants were homogeneous in terms of their ethnicity, and marital status is much less visible in Chinese context as found in previous research (Liao et al., 2008).

We followed previous research in supervisor-subordinate similarity to calculate employees' dyadic dissimilarity to their managers (e.g., Bauer & Green, 1996; Tepper, Moss, & Duffy, 2011). Dissimilarity in age, education, and organizational tenure was measured as an absolute difference score. Larger values of this measure represent greater differences between employees and their managers in demographic characteristics. In the case of gender dissimilarity, we used a dummy variable (0 = *same gender*, 1 = *different gender*).

We measured an employee's dissimilarity to his or her coworkers in terms of the four characteristics by using Euclidean distance formula (Tsui, Egan, & O'Reilly, 1992), which is the squared root of the summed squared difference between an employee's value on a demographic characteristic and the value of all coworkers on the same characteristic divided by the number of branch members. Euclidean distance has been widely used in the relational demography literature to assess the average difference between the focal individual and others in the same work unit (e.g., Riordan, 2000). Similar to the dyadic dissimilarity to manager, higher scores of demographic dissimilarity to coworkers indicate that the employee differs more on a demographic attribute from his or her coworkers in the same branch. By following previous research (e.g., Bhave et al., 2010; Liao et al., 2004, 2008), we considered the four dimensions as four variables in the analyses.

Control Variables

At the individual level, we controlled for employees' age (measured in years), gender (1= *male,* 0 = *female*), education level (measured by five categories ranging from 1 = *middle school or below* to 5 = *master's degree or above*), and organizational tenure (measured in years) in the analyses due to their potential impact on employee-perceived HR practices (e.g., Liao et al., 2009). At the branch level, we considered managers' four demographic traits as control variables when examining the influence of manager-perceived HR practices. We also controlled for branch size indicated by the total number of employees of the branch because organizational size may influence the types of HR practices used in the organizations (Jackson, Schuler, & Rivero, 1989). In addition, we controlled for coworker-perceived HR practices at the individual level when testing the influence of manager-perceived HR practices and controlled for manager-perceived HR practices at the branch level when examining the effect of coworker-perceived HR practices on employees' perceptions of HR practices.

Analytic Strategy

Because employees were nested within branches and our hypotheses involved variables operationalized at different levels of analysis (e.g., employees' perceptions of HR practices at the individual level and managers' perceptions of HR practices at the branch level), we used hierarchical linear modeling (HLM; Raudenbush & Bryk, 2002) to test our hypotheses. To test the cross-level interactions (i.e., Hypothesis 3), we applied group-mean centering for dyadic dissimilarity and included

its group mean at the branch-level intercept model. This approach ensures that the results for the cross-level interactions are not spurious (Hofmann & Gavin, 1998). To examine the individual level interaction (i.e., Hypothesis 4), we followed Aiken and West's (1991) approach to create the interaction term after grand-mean centering the involved variables. In addition, full maximum likelihood estimation was used to test model improvement. In this case, similar to examining R-square change in ordinary least squares regression or chi-square differences in structural equation modeling, deviance tests were performed to assess relative improvements in model fit between various hypothesized models (Raudenbush & Bryk, 2002).

Study 1: Results and Discussion

Table I presents the descriptive statistics, reliabilities, and correlations for the variables in Study 1. As shown in Table I, both coworker-perceived HR practices ($r = .80$, $p < .01$) and manager-perceived HR practices ($r = .77$, $p < .01$ at the branch level) were positively related to employee-perceived HR practices. We also compared the ratings of HR practices of managers and employees and found that managers tend to have higher ratings of HR practices than employees (F (1, 619) = 5.28, $p < .05$, $M_{manager} = 3.98$, $M_{employee} = 3.58$). Before the tests of hypotheses, we first examined a null HLM model to determine the extent of between-branch variability in employee-perceived HR practices. The results showed that 67% of the variance in employees' perceptions of HR practices resided between branches (i.e., ICC(1) = .67, $p < .01$), thus supporting the use of HLM analyses.

Table II displays the results of our analyses examining the influence of managers' perceptions of HR practices. In support of Hypothesis 1, manager-perceived HR practices were positively related to employees' HR perceptions ($\gamma = .38$, $p < .01$) after controlling for the influence of coworkers' perceptions (Model 2 in Table II). Similarly, as presented in Table III, coworkers' perceptions of HR practices were positively related to employees' perceptions ($\gamma = .71$, $p < .01$) beyond the influence of manager-perceived HR practices (Model 2 in Table III). Therefore, Hypotheses 1 and 2 were supported.

In Hypothesis 3, we predicted that employees' dyadic dissimilarity to manager moderates the relationship between manager-perceived and employee-perceived HR practices. However, the moderator analysis results in Table II indicated that the coefficient of the four interaction terms were not significant ($\gamma = -.01, -.13, .01, .00$ for

TABLE I	Means, Standard Deviations, and Bivariate Correlations for Study Variables (Study 1)														
		M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
Individual-Level Variables (*N* = 591)																
1. Employees' HR perceptions		3.58	.93	(.93)												
2. Coworkers' HR perceptions		3.57	.75	.80												
3. Employee age[a]		30.42	6.80	.07	.11											
4. Employee gender[b]		.43	.50	.10	.12	.02										
5. Employee education[c]		3.33	.83	.26	.32	−.18	.23									
6. Employee tenure[a]		7.16	5.98	−.05	−.05	.67	−.08	−.26								
7. Age dissimilarity (Co)		1.75	1.38	.20	.24	.47	−.02	−.03	.21							
8. Gender dissimilarity (Co)		.14	.07	.22	.25	.10	.11	.15	−.01	.67						
9. Education dissimilarity (Co)		.20	.11	.11	.11	.27	−.05	−.13	.09	.61	.53					
10. Tenure dissimilarity (Co)		1.40	.95	.08	.10	.37	−.01	−.08	.54	.59	.44	.32				
11. Age dissimilarity (M)		8.45	5.20	−.16	−.16	−.20	−.01	−.11	−.10	.06	.03	.07	.11			
12. Gender dissimilarity (M)		.54	.33	−.12	−.15	−.02	−.86	−.21	.06	.01	−.12	.04	−.01	.03		
13. Education dissimilarity (M)		.73	.62	−.09	−.13	.23	−.12	−.79	.25	.10	−.11	.33	.10	.07	.11	
14. Tenure dissimilarity (M)		5.16	4.47	.01	.01	.13	.05	−.07	.35	.16	.07	.03	.63	.35	−.02	.11
Branch-Level Variables (*N* = 29)																
1. Managers' HR perceptions		3.98	.80													
2. Average employees' HR perceptions		3.87	.84	.77												
3. Average age dissimilarity (M)		8.15	3.17	−.49	−.40											
4. Average gender dissimilarity (M)		.54	.12	−.41	−.39	.23										
5. Average education dissimilarity (M)		5.07	2.48	−.10	−.20	.39	.01									
6. Average tenure dissimilarity (M)		.66	.28	−.32	−.38	.31	.44	.22								
7. Branch size		2.48	14.02	−.39	−.52	.14	−.01	.05	.39							
8. Manager age[a]		36.98	4.95	−.29	−.15	.68	.36	.10	.34	−.11						
9. Manager gender[b]		.75	.23	−.33	−.41	.35	.33	−.01	.29	.24	.35					
10. Manager education[c]		3.85	.35	.60	.58	−.09	−.17	−.13	−.17	−.07	−.14	−.22				
11. Manager tenure[a]		9.75	2.80	−.22	−.24	.41	.07	.76	.10	−.04	.23	.07	−.15			

Notes: At the individual level, correlations above .06 are significant at .08 or below on two-tailed tests; at the branch level, correlations above .36 are significant at .05 or below on two-tailed tests.
Co = dissimilarity to coworkers; M = dissimilarity to manager.
[a]Age and organizational tenure were measured in years; [b]1 = male, 0 = female; [c]1 = middle school or below, 2 = high school, 3 = associate's degree, 4 = bachelor's degree, 5 = master's degree or above.

TABLE II	Regression Results of the Relationship between Managers' Perceptions and Employees' Perceptions of HR Practices (Study 1)		
Variable	**Model 1**	**Model 2**	**Model 3**
Level 1:			
Age	−.00	−.00	−.00
Gender	.03	.02	.06
Education	−.01	−.02	−.03
Tenure	.00	.00	−.00
Coworkers' HR perceptions	.95**	.59**	.53**
Age dissimilarity to manager			−.02*
Gender dissimilarity to manager			.03
Education dissimilarity to manager			.01
Tenure dissimilarity to manager			.01
Level 2:			
Branch size	−.00	−.00	−.01*
Manager age	−.00	.01	.02*
Manager gender	.00	−.18	−.30*
Manager education	.15*	.08	.10
Manager tenure	−.01	−.02	.00
Managers' HR perceptions		.38**	.40**
Average age dissimilarity to manager			.00
Average gender dissimilarity to manager			−.38*
Average education dissimilarity to manager			−.03
Average tenure dissimilarity to manager			−.04
Managers' HR perceptions × age dissimilarity			−.01
Managers' HR perceptions × gender dissimilarity			−.13
Managers' HR perceptions × education dissimilarity			.01
Managers' HR perceptions × tenure dissimilarity			.00
Model deviance *(df)*	981.27 (13)	967.69 (14)	952.57 (26)
Change in model deviance *(df)*		13.58** (1)	15.12 (12)

Notes: $N = 591$ at the individual level, $N = 29$ at the branch level.
*$p < .05$; **$p < .01$.

the moderating effect of age, gender, education, and tenure dissimilarity, respectively, all $ps > .05$). This did not provide support for Hypothesis 3. In Hypothesis 4, we proposed that employees' demographic dissimilarity to coworkers in terms of age, gender, education, and organizational tenure moderates the relationship between coworker-perceived and employee-perceived HR practices. As shown in Model 3 of Table III, the moderating effects of age dissimilarity ($\gamma = -.11$, $p < .01$) and organizational tenure dissimilarity ($\gamma = -.09$, $p < .05$) were significant and negative. However, gender dissimilarity ($\gamma = -.56$, *ns*) and education dissimilarity ($\gamma = .28$, *ns*) did not moderate the relationship between coworker-perceived and employee-perceived HR practices.

To further illustrate the moderating effect of age dissimilarity and organizational tenure dissimilarity, we followed Aiken and West's (1991) approach to plot the interactions in Figures 2 and 3. As shown in Figure 2, coworkers' perceptions of HR practices were more positively related to employees' perceptions of HR practices when age dissimilarity was low (simple slope = .83, $t(575) = 7.90$, $p < .01$) than when it was high (simple slope = .54, $t(575) = 4.78$, $p < .01$). Similarly, Figure 3 shows that the positive relationship between coworkers' perceptions and employees' perceptions of HR practices was stronger when organizational tenure dissimilarity was low (simple slope = .77, $t(575) = 7.55$, $p < .01$) than when it was high (simple slope = .60, $t(575) = 6.13$, $p < .01$).

Variable	Model 1	Model 2	Model 3
Level 1:			
Age	−.00	−.00	−.01
Gender	.01	.02	.02
Education	−.02	−.02	−.01
Tenure	−.00	−.00	.01
Coworkers' HR perceptions		.71**	.69**
Age dissimilarity to coworkers			.09
Gender dissimilarity to coworkers			.68
Education dissimilarity to coworkers			.02
Tenure dissimilarity to coworkers			−.09
Coworker HR × Age dissimilarity to coworkers			−.11**
Coworker HR × Gender dissimilarity to coworkers			−.56
Coworker HR × Education dissimilarity to coworkers			.28
Coworker HR × Tenure dissimilarity to coworkers			−.09*
Level 2:			
Branch size	−.01	−.00	−.00
Managers' HR perceptions	.92**	.28**	.30**
Model deviance *(df)*	981.61 (9)	972.79 (10)	961.70 (18)
Change in model deviance *(df)*		8.82** (1)	11.09** (8)

TABLE III Regression Results of the Relationship between Coworkers' Perceptions and Employees' Perceptions of HR Practices (Study 1)

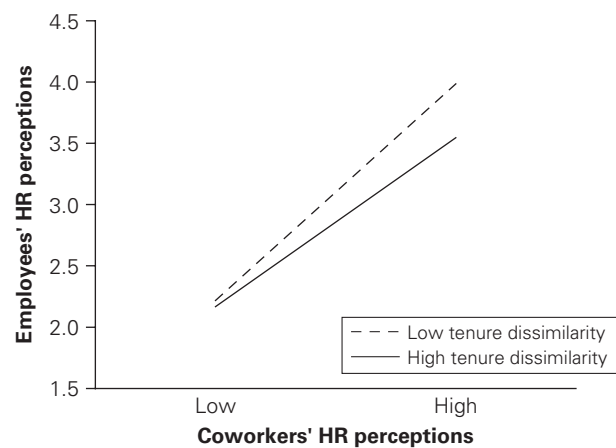*Notes:* $N = 591$ at the individual level, $N = 29$ at the branch level.
*$p < .05$; **$p < .01$.

FIGURE 2. Moderating Effect of Age Dissimilarity on the Relationship between Coworkers' HR Perceptions and Employees' HR Perceptions (Study 1)

FIGURE 3. Moderating Effect of Organizational Tenure Dissimilarity on the Relationship Between Coworkers' HR Perceptions and Employees' HR Perceptions (Study 1)

Combined, we only found significant moderating effect of age dissimilarity and organizational tenure dissimilarity.

In summary, the results of Study 1 provided initial support for Hypotheses 1, 2, and 4. The findings indicate that both managers and coworkers influence how employees perceive HR practices. For employees who were more similar to their coworkers in terms of age and organizational tenure, their perceptions of HR practices were more positively related to their coworkers, which is consistent with our prediction based on

social information processing theory. Study 1 is subject to several limitations that urged us to conduct a second study. First, we tested the hypotheses by focusing on a certain type of employees (i.e., insurance sales agents). It is necessary to examine whether these findings can be applied to other types of employees or be replicated in other organizational settings. Second, the average branch size in Study 1 was 20.38, which is relatively large according to team and work group literature (Hackman & Vidmar, 1970). Because group size can influence information sharing and interaction among employees (Stasser, Taylor, & Hanna, 1989), it is critical to testify whether our findings can be generalized to employees working in smaller work units. Therefore, in order to verify the findings of Study 1 and increase generalizability of these findings, we tested the same relationships in Study 2 as discussed below.

Study 2: Method

Participants and Procedures

In Study 2, we collected multilevel data from a governmental agency concerned with promoting economic growth located in a large city in East China. The main responsibilities of this organization include supervising and regulating market transactions as well as providing administrative service for local business. The participating organization consists of many branches that are responsible for similar management and service work (e.g., monitoring market trade, collecting business administration fees, issuing business license, processing trademark application, etc.) in different districts of the city. With the help of the HR department of this organization, we randomly identified 6 out of 16 districts and surveyed all 2,092 administrative employees and 210 branch managers of branches within the 6 districts. We invited all employees and branch managers to participate in a cross-sectional web-based survey. Confidentiality was assured and only the research team had access to the responses. We asked branch managers to evaluate HR practices applied to administrative employees at their branches and asked employees to report their perceptions of HR practices. We also collected demographic information from both branch managers and employees.

After matching the responses of employees and those of branch managers and deleting uncompleted surveys, the final sample consisted of 1,133 employees and 141 branch managers. The effective response rates were 54% and 67% for employees and branch managers, respectively. On average, a branch had 8.04 employees (SD = 5.10). Among the employees, 505 were less than 40 years old and accounted for 44.57% of the sample, 794 were male (70.08%), 746 had completed bachelor's degree or above (65.84%), and 690 had worked in the organization for more than 10 years (60.90%). Regarding the sample of branch managers, 71 were less than 40 years old (50.35%), 117 were male (82.97%), 126 had bachelor's degree or above (89.36%), and 54 had worked in the organization for more than 10 years (38.29%).

Measures

As in Study 1, we followed translation–back translation procedures (Brislin, 1980) to translate all measures into Chinese. HR practices were scored on a 6-point Likert response scale. High scores represent greater standing on the variable of interest.

Employee-Perceived HR Practices

We chose 16 items to assess employee-perceived HR practices after our discussion with the HR department of the participating organization. Although this measure was not identical with what we used in Study 1, both measures reflected the three key components of an HR system according to the AMO model. In particular, the 16 items reflected practices of staffing and training, performance appraisal and compensation, and work design. Among these items, 11 were adapted from Chuang and Liao (2010) to measure staffing and training (6 items, e.g., "The branch continuously provides training programs") as well as performance appraisal and compensation (5 items, e.g., "The branch attaches importance to the fairness of compensation/rewards"). We drew 5 items from Lepak and Snell (2002) to evaluate work design. Sample items include "The branch allows employees to perform jobs that involve job rotation" and "The branch shares information with employees timely." The Cronbach's alpha for this scale was .87.

Manager-Perceived HR Practices

Branch managers were asked to evaluate the use of HR practices applied to administrative employees by using the same measure. Employees within the same branch shared the same score of manager-perceived HR practices. The Cronbach's alpha was .91 for the sample of branch managers.

Coworker-Perceived HR Practices

Similar to Study 1, we computed coworkers' perceptions of HR practices by taking the average of HR practices scores of all employees of the branch by excluding the score of the focal employee. Each employee had his or her own score of coworker-perceived HR practices, which might be different from those of other employees in the same branch.

Demographic Dissimilarity

Similar to Study 1, we considered age, gender, education level, and organizational tenure of respondents to calculate dissimilarity measure. The same approach used in Study 1 was adopted to compute dyadic dissimilarity between employees and their managers in the four demographic characteristics (i.e., age, gender, education, and organizational tenure). We used an absolute difference score to represent employees' dyadic dissimilarity to their managers in terms of age, education, and organizational tenure with the larger values representing larger differences in demographic characteristics. We also used a dummy variable to indicate gender dissimilarity between employees and their managers (0 = same gender, 1 = different gender). We once again measured demographic dissimilarity to coworkers with the Euclidean distance formula (Tsui et al., 1992). Higher scores of demographic dissimilarity represent that the employee differs more on a particular demographic attribute from his or her coworkers.

Control Variables

Similar to Study 1, we controlled for the same control variables in the analyses. In Study 2, in order to protect participants' privacy as requested by the participating organization, the participating organization did not allow us to collect information about employees' exact age and organizational tenure. Instead, we asked a respondent to indicate his or her age in one of three age categories (i.e., 1 = *equal to or younger than 30 years old*, 2 = *between 31 and 40 years old*, 3 = *older than 40 years old*) and organizational tenures in one of eight categories (from 1 = *equal to or less than 1 year* to 8 = *equal to or greater than 30 years*). Gender was measured as a dichotomous variable (i.e., 1 = *male*, 0 = *female*) and education level included four categories ranging from 1 = *associates degree or below* to 4 = *doctoral degree*.

Analytic Strategy

Similarly, we used HLM (Raudenbush & Bryk, 2002) to test the hypotheses and applied group-mean centering (Hofmann & Gavin, 1998) when testing hypotheses involving cross-level interaction (e.g., Hypothesis 3). We still followed Aiken and West's (1991) approach to examine the individual level interactions (i.e., Hypothesis 4). In addition, full maximum likelihood estimation was used to test model improvement (Raudenbush & Bryk, 2002).

Study 2: Results and Discussion

The descriptive statistics and intercorrelations of all study variables are presented in Table IV. Similarly,

we found that both coworker-perceived HR practices ($r = .26$, $p < .01$) and manager-perceived HR practices ($r = .22$, $p < .01$ at the branch level) were positively related to employee-perceived HR practices and managers tend to have higher ratings of HR practices than employees ($F (1, 1272) = 6.60$, $p < .01$, $M_{manager} = 4.45$, $M_{employee} = 4.31$). We also examined a null HLM model with employee-perceived HR practices as the dependent variable and found significant between-branch variance in employees' perceptions of HR practices (ICC(1) = .12, $p < .01$), thus offering support for the use of HLM analyses.

Hypotheses 1 and 2 predicted that managers' perceptions and coworkers' perceptions of HR practices would be positively related to employee-perceived HR practices. As displayed in Table V, manager-perceived HR practices ($\gamma = .07$, $p < .01$) had a significant and positive relationship with employee-perceived HR practices after controlling for coworkers' perceptions. Similarly, Table VI shows a positive association between coworker-perceived and employee-perceived HR practices ($\gamma = .48$, $p < .01$) with manager-perceived HR practices controlled. Therefore, Hypotheses 1 and 2 received full support.

Hypotheses 3 and 4 predicted that demographic dissimilarity to one's manager and coworkers, respectively, would result in weaker relationships of manager-perceived and coworker-perceived HR practices with employee-perceived HR practices. As shown in Model 3 of Table V, none of the cross-level interactions between manager-perceived HR practices and dyadic dissimilarity in the four demographic characteristics on employee-perceived HR practices were significant ($\gamma = -.02, .04, -.06, -.00$ for age, gender, education, and tenure dissimilarity respectively, all ps > .05). Consequently, Hypothesis 3 did not receive support. Regarding the moderating role of demographic dissimilarity to coworkers, we found the significant moderating effects of age dissimilarity ($\gamma = -.57$, $p < .05$, Model 3 of Table VI) and organizational tenure dissimilarity ($\gamma = -.45$, $p < .01$, Model 3 of Table VI). The moderating effects of dissimilarity in gender and education were not significant. Following the approach of Aiken and West (1991), we plotted the moderating effect of age dissimilarity in Figure 4. Consistent with our prediction, the positive relationship between coworker-perceived HR practices and employee-perceived HR practices was more positive when age dissimilarity was low (simple slope = .53, $t(1,115) = 7.21$, $p < .01$) than when it was high (simple slope = .34, $t(1,115) = 5.72$, $p < .01$). Similarly, we plotted the moderating effect of organizational tenure dissimilarity in Figure 5 and found that the focal relationship was stronger when organizational tenure dissimilarity

TABLE IV	Means, Standard Deviations, and Bivariate Correlations for Study Variables (Study 2)														
		M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
Individual-Level Variables (N = 1,133)																
1. Employees' HR perceptions		4.31	.63	(.87)												
2. Coworkers' HR perceptions		4.31	.31	.26												
3. Employee age[a]		2.34	.81	−.06	−.08											
4. Employee gender[b]		.70	.46	.02	.04	.12										
5. Employee education[c]		1.70	.54	.02	−.09	−.53	−.14									
6. Employee tenure[d]		4.46	2.02	−.11	−.05	.49	.05	−.30								
7. Age dissimilarity (Co)		.32	.17	.05	.11	−.44	−.06	.11	−.27							
8. Gender dissimilarity (Co)		.18	.10	−.03	−.06	−.16	−.46	.15	−.11	.33						
9. Education dissimilarity (Co)		.21	.11	.15	.28	−.05	.06	−.10	−.10	.37	.00					
10. Tenure dissimilarity (Co)		.78	.33	.10	.14	−.02	−.01	.00	−.04	.28	.13	.24				
11. Age dissimilarity (M)		.70	.66	.06	.14	−.48	−.03	.19	−.22	.34	.06	.08	.01			
12. Gender dissimilarity (M)		.33	.47	−.02	−.01	−.06	−.67	.10	.00	.04	.39	−.04	−.04	.03		
13. Education dissimilarity (M)		.47	.55	.06	.07	.26	.07	−.49	.07	−.01	−.11	.36	.02	.02	−.04	
14. Tenure dissimilarity (M)		2.11	1.57	−.01	.09	.29	.01	−.16	.57	−.18	−.07	.00	.24	.00	.01	.12
Branch-Level Variables (N = 141)																
1. Managers' HR perceptions		4.45	.59													
2. Average employees' HR perceptions		4.32	.31	.22												
3. Average age dissimilarity (M)		.71	.35	.17	.17											
4. Average gender dissimilarity (M)		.33	.23	−.04	.09	.05										
5. Average education dissimilarity (M)		.45	.32	.19	.11	.03	−.07									
6. Average tenure dissimilarity (M)		2.01	.77	−.02	−.03	−.12	−.05	.04								
7. Branch size		8.04	5.10	−.04	−.05	−.05	.00	.08	.21							
8. Manager age[a]		2.49	.55	−.01	−.03	−.27	−.10	.10	−.06	−.10						
9. Manager gender[b]		.83	.37	.02	.09	−.02	−.41	.03	.06	.13	.09					
10. Manager education[c]		1.96	.40	.05	.03	−.16	.07	.16	.05	.02	−.24	−.06				
11. Manager tenure[d]		3.26	1.23	.03	.08	−.03	−.05	.03	−.35	.01	.35	.10	−.08			

Notes: At the individual level, correlations above .06 are significant at .05 or below on two-tailed tests; at the branch level, correlations above .17 are significant at .05 or below on two-tailed tests.
Co = dissimilarity to coworkers; M = dissimilarity to manager.
[a]1 = equal to or less than 30 years old, 2 = between 31 to 40 years old, 3 = larger than 40 years old; [b]1 = male, 0 = female; [c]1 = associate's degree or below, 2 = bachelor's degree, 3 = master's degree, 4 = doctoral degree; [d]1 = equal to or less than 1 year, 2 = 2–4 years, 3 = 5–9 years, 4 = 10–14 years, 5 = 15–19 years, 6 = 20–24 years, 7 = 25–29 years, 8 = equal to or greater than 30 years.

TABLE V	Regression Results of the Relationship between Managers' Perceptions and Employees' Perceptions of HR Practices (Study 2)		
Variable	**Model 1**	**Model 2**	**Model 3**
Level 1:			
Age	.03	.03	.01
Gender	.02	.02	−.03
Education	.04	.05	.05
Tenure	−.03**	−.03**	−.02
Coworkers' HR perceptions	.50**	.47**	.42**
Age dissimilarity to manager			−.01
Gender dissimilarity to manager			−.05
Education dissimilarity to manager			.09*
Tenure dissimilarity to manager			.01
Level 2:			
Branch size	−.00	−.00	−.00
Manager age	−.04	−.03	−.01
Manager gender	.00	.00	−.03
Manager education	−.02	−.02	−.01
Manager tenure	−.01	−.01	−.00
Managers' HR perceptions		.07**	.05**
Average age dissimilarity to manager			.04
Average gender dissimilarity to manager			−.09
Average education dissimilarity to manager			.03
Average tenure dissimilarity to manager			.04*
Managers' HR perceptions × age dissimilarity			−.02
Managers' HR perceptions × gender dissimilarity			.04
Managers' HR perceptions × education dissimilarity			−.06
Managers' HR perceptions × tenure dissimilarity			−.00
Model deviance *(df)*	2061.48 (13)	2056.86 (14)	1647.31 (29)
Change in model deviance *(df)*		4.61* (1)	409.55 (15)

Notes: *N* = 1,133 at the individual level, *N* = 141 at the branch level.
*p < .05; **p < .01.

was low (simple slope = .58, $t(1,115) = 8.47$, $p < .01$) than when it was high (simple slope = .28, $t(1,115) = 3.91$, $p < .01$).

Taken together, by using a sample from a governmental agency, Study 2 replicated the findings of Study 1. Consistent with the results of Study 1, HR perceptions held by managers and by coworkers were positively related to those of employees. Particularly, the positive relationship between coworker-perceived and employee-perceived HR practices was stronger when employees were more similar to their coworkers in terms of age and organizational tenure.

General Discussion

After nearly three decades of development of strategic HRM research, sufficient empirical evidence has accumulated to demonstrate the relationship between the use of bundles of HR practices and firm performance at the unit-level of analysis (e.g., Combs et al., 2006; Jiang, Lepak, Hu, et al., 2012; Subramony, 2009). With the trend toward greater understanding of the mechanisms through which this relationship takes place, increasing attention has been devoted to examining how HR practices are designed and implemented in organizations and how employees experience and react to HR practices (e.g., Bowen & Ostroff, 2004; Nishii & Wright, 2008; Paauwe et al., 2013; Wright & Nishii, 2013). By focusing on employees' reactions to HR practices, many scholars have found that employees make a positive contribution to their organizations when they perceive the use of HPWS in workplaces (e.g., Aryee et al., 2012; Den Hartog

| TABLE VI	Regression Results of the Relationship between Coworkers' Perceptions and Employees' Perceptions of HR Practices (Study 2)		
Variable	**Model 1**	**Model 2**	**Model 3**
Level 1:			
Age	.02	.03	.01
Gender	.02	.02	−.00
Education	.04	.04	.04
Tenure	−.03**	−.03**	−.03**
Coworkers' HR perceptions		.48**	.43**
Age dissimilarity to coworkers			−.11
Gender dissimilarity to coworkers			−.22
Education dissimilarity to coworkers			.44*
Tenure dissimilarity to coworkers			.11*
Coworker HR × Age dissimilarity to coworkers			−.57*
Coworker HR × Gender dissimilarity to coworkers			.16
Coworker HR × Education dissimilarity to coworkers			−.42
Coworker HR × Tenure dissimilarity to coworkers			−.45**
Level 2:			
Branch size	−.01	−.00	.00
Managers' HR perceptions	.13**	.07**	.05*
Model deviance *(df)*	2078.84 (9)	2058.88 (10)	2035.22 (18)
Change in model deviance *(df)*		19.97** (1)	23.66** (8)

Notes: N = 1,133 at the individual level, N = 141 at the branch level.
*$p < .05$; **$p < .01$.

FIGURE 4. Moderating Effect of Organizational Age Dissimilarity on the Relationship Between Coworkers' HR Perceptions and Employees' HR Perceptions (Study 2)
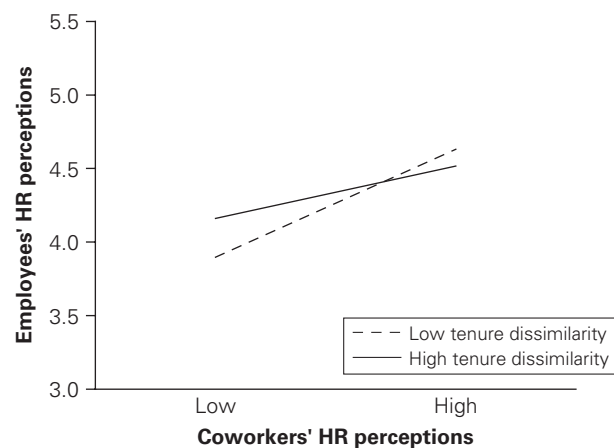
FIGURE 5. Moderating Effect of Organizational Tenure Dissimilarity on the Relationship between Coworkers' HR Perceptions and Employees' HR Perceptions (Study 2)

et al., 2013; Liao et al., 2009; Messersmith et al., 2011).

An equally important question that has not been adequately addressed is: What are the factors shaping employees' perceptions of HR practices? The answer to this question is important to strategic HRM literature because the variability in employees' perceptions of HR practices may undermine organizations' efforts to use HR practices to manage employees and achieve strategic objectives (Nishii & Wright, 2008; Wright & Nishii, 2013). To address this research question,

we conducted two independent studies by focusing on employees' perceptions of HR practices as the dependent variables. Results from both studies suggest that the perceptions of HR practices from two important organizational members—managers and coworkers—were positively associated with employees' perceptions of HR practices and the relationship between coworker-perceived and employee-perceived HR practices was strengthened when employees were similar to their coworkers in terms of age and organizational tenure. These findings offer several important and meaningful implications for research and practice.

Theoretical Contributions

A primary contribution of the current study lies in identifying the factors shaping employees' perceptions of HR practices. While scholars have documented that it is the employees' perceptions about HR practices, not an organization's planned HR practices, which directly influence employees' behaviors and performance (Liao et al., 2009; Nishii & Wright, 2008), researchers know much less about the contextual factors affecting employees' experiences of HR practices. This is an important unaddressed gap, because only when we learn what factors guide employees' perceptions of HR practices and what make individual employees feel HR practices in a different light, can researchers and practitioners gain better understanding of what organizations could do to manage employees' perceptions of HR practices and align their behaviors with organizational objectives. Furthermore, researchers have generally agreed that both managers and coworkers are key members of the organization (Hackman, 1994) and together help to create the interpersonal environment for the focal employees. Drawing on social information processing theory (Salancik & Pfeffer, 1978), the current study is among the first to consider the impact of both managers' and coworkers' perceptions of HR practices on employees' own perceptions of HR practices. Specifically, the findings from the current study advance our understanding by showing that both managers and coworkers play critical roles in shaping employees' perceived HR practices and that these roles are more salient under certain conditions.

Related, the current study sheds light on the knowledge of the variability of employees' HR perceptions. A recent trend in strategic HRM research has acknowledged that due to their idiosyncratic experiences at work, individual employees tend to perceive common HR practices differently (Nishii & Wright, 2008; Wright & Nishii, 2013). However, we still have little evidence regarding the sources of differences in employees' HR perceptions and under what conditions these sources play a role. The current study examined how demographic dissimilarity may possibly explain the differences between employees' HR perceptions and those of their managers and coworkers. Interestingly, the results show that managers' HR perceptions matter to employees' HR perceptions regardless of their dyadic dissimilarity levels; but coworkers' HR perceptions appear to be more important to the focal employees' HR perceptions when they have similar ages with each other and have stayed in the organization for a similar period of time. Viewed together, these findings imply that for those with power such as managers, their perceptions are influential for employees to interpret the organization's practices, irrespective of their demographic similarity. In contrast, the similarity attraction framework (Byrne, 1971) may work better for employees and their coworkers. In particular, when employees join the organization at approximately the same time as their coworkers, they may share more experience in learning about HR practices with coworkers and find the HR information provided by coworkers more relevant due to their similar status and positions in the organizational hierarchy.

The findings of this study also make contribution to understanding the shared perception of HR practices among employees. The argument of the strength of the HR system suggests that some metafeatures of an HR system may help establish a strong organizational climate in which employees have a shared understanding of expected and rewarded behaviors. Our findings complement this argument by showing that shared perceptions may be more likely to emerge among employees with similar background in age and organizational tenure rather than be held by all individuals to the same extent. These findings are consistent with Bowen and Ostroff's (2004) notion that subgroups may exist in an organization and develop different subclimates. In addition the formal functional areas, departments, or groups, informal groups of employees based on demographic similarity may also affect the emergence of shared perceptions.

Results from both studies suggest that the perceptions of HR practices from two important organizational members— managers and coworkers—were positively associated with employees' perceptions of HR practices and the relationship between coworker-perceived and employee-perceived HR practices was strengthened when employees were similar to their coworkers in terms of age and organizational tenure.

One interesting finding we did not hypothesize is that managers tend to have higher ratings of HPWS than employees in both studies. This is consistent with results of previous studies examining both managers' and employees' perceptions of HPWS (e.g., Aryee et al., 2012; Den Hartog et al., 2013; Liao et al., 2009). This finding suggests that managers may be more likely to overstate the use of advanced HR practices like HPWS or be more optimism about the use of HPWS than employees in general. In addition, the stronger coefficient of coworker-perceived HR practices than that of manager-rated HR practices indicates that employees may be more influenced by coworkers than managers. This is probably because employees have more opportunities to interact with and communicate to each other in the process of gathering HR information compared with their chances to talk with their managers. Combined, these findings suggest that researchers cannot only examine actual HR practices or HR practices reported by managers because what is perceived by employees may or may not reflect actualities or even the evaluations of their managers. Instead, researchers need to pay more attention to employees' perceptions and understand how they develop shared perceptions with each other.

In order to make employees behave as expected by organizations, managers need to have a better knowledge of what factors may be related to employees' perceptions of HR practices and how to align HR perceptions of different employees.

Practical Implications

An important practical reason for studying employees' perceptions of HR practices is that employees' attitudes and behaviors toward organizations are dependent on how they perceive HR practices in workplaces. In order to make employees behave as expected by organizations, managers need to have a better knowledge of what factors may be related to employees' perceptions of HR practices and how to align HR perceptions of different employees. The current research attempts to offer practical insights for this question by focusing on the extent to which employees can perceive the adoption of HPWS in organizations. Our findings first suggest that employees' perceptions of HR practices can be shaped by their managers and coworkers. This indicates that organizations may facilitate the communication and interactions between managers and employees and among employees to give them opportunities to develop a shared understanding of HR practices. For example, orientation programs may be offered to convey managers' interpretations of HR practices to employees. Organizations may also emphasize the importance of explaining HR practices to employees rather than assuming they understand HR practices as their managers do. Additionally, organizations can create a climate that allows employees to exchange their understanding of HR practices with each other and thus helps employees to know better about HR practices from their peers.

Moreover, the results also draw managers' attention to the demographic dissimilarity between employees and coworkers, as the results revealed that employee-perceived and coworker-perceived HR practices were more in alignment when they were more similar to each other in terms of age and organizational tenure. This finding provides several implications for practices. First, even though individual employees may perceive HR practices in different ways due to their different characteristics, they are likely to reach at least a certain degree of consensus based on their age or tenure similarity. This suggests that, rather than aligning HR perceptions of each individual employee with organizational intention, organizations may address some common issues perceived by a specific employee group (e.g., senior employees or junior employees). Second, as the workforce is aging and getting more and more diverse, organizations meet more challenges to align all employees' perceptions of HR practices with each other and with organizations' intention. In this case, managers need to pay special attention to the difference in HR perceptions that exist between different age groups or tenure groups and examine why those differences exist. If the difference is due to the unique experience of employees of different groups (e.g., junior employees perceive more training opportunities than senior employees), organizations may examine whether the current practices can meet the needs of different employees. If the difference is due to the lack of communication and interaction between employees of different ages and tenures, organizations may offer more opportunities (e.g., mentoring programs and teamwork) for them to share their understanding with each other.

Limitations and Future Directions

Despite the contributions, the current study has several notable limitations that point to several intriguing areas for future research. First, even though data were collected from three different sources and applied two different field studies to test the hypotheses, the cross-sectional nature of the data precluded any inference of causality. Although based on the above theoretical reasoning,

we proposed that managers and coworkers would influence the way employees perceive and interpret the HR practices in an organization. However, it does not deny the possibility that employees' perceptions of HR practices are likely to influence their managers' and coworkers' understanding of HR practices. The standing of this alternative direction is based on the notion that interactions and dyadic relationships between managers/coworkers and the focal employees are held by both parties and thus the influence should be mutual (e.g., Dienesch & Liden, 1986; Tsui, Pearce, Porter, & Tripoli, 1997). Although managers are generally seen as powerful in shaping employees' perceptions (Yukl, 2010), research on followership also suggests that employees' experience and reactions are likely to influence managers' perceptions at workplace (Van Vugt, Hogan, & Kaiser, 2008). Thus, future research with longitudinal or experimental designs is encouraged to replicate our results and see if the hypothesized relationships are still held in the other direction.

Second, we examined only the impact of managers and coworkers on employees' perceptions of HR practices. However, other factors beyond managers and coworkers can also help shape employees' perceptions. For example, Bowen and Ostroff (2004) suggested that metafeatures of HR practices may influence the actual strength of an HR system and thus affect employees' perceptions of HR practices. This suggests that a strong HR system in an organization may enable managers, coworkers, and employees to have consistent perceptions about HR practices and thus lead to strong associations between their perceptions. In addition, top leaders who can determine the use of HR practices and HR departments who often facilitate the implementation of HR practices can also influence how employees perceive HR practices and share perceptions with each other. We therefore encourage future research to investigate how these factors may affect employees' perceptions of HR practices.

Third, although the current study focused on a variety of demographic or functional dissimilarity (e.g., age, gender, education, and organizational tenure) as important boundary conditions for the relationship between manager-perceived and coworker-perceived HR practices and employees' perceptions of HR practices, other types of dissimilarity, in terms of characteristics that are not visible, and underlying, such as personality or values, may also appear to be critical. Drawing on the similarity-attraction paradigm (Byrne, 1971) or social identity theory (Tajfel & Turner, 1986), previous research has shown that deep-level dissimilarity has a direct and negative influence on

employees' perceptions and attitudes at the work place (Liao et al., 2008). Although we did not find support for the moderating effect of dyadic demographic dissimilarity between managers and employees, it is possible that employees are less likely to be affected by their managers who shared little similarity in terms of personality traits or personal work values. Further, because both samples were Chinese, we did not consider ethnicity dissimilarity as a potential boundary condition. Research has suggested that cultural dissimilarity may lead to better use of information and better outcomes over time (Waston, Kumar, & Michaelsen, 1993). Thus, it would be useful to employ a culturally diverse sample to examine whether cultural dissimilarity may play a different role from other types of dissimilarity in altering the alignment of HR practice perceptions between managers/coworkers and the focal employees.

Fourth, even though we managed to test the hypotheses in two different types of organizations, some unique features of the two organizations may affect the generalizability of our research findings. For example, we found a relatively high ICC(1) in Study 1 and relatively low ICC(1) in Study 2, which suggests that employees in Study 1 might be more likely to share perceptions of HR practices within branches than those in Study 2. This was probably due to the characteristics of the two organizations—one with a small number of large branches located in different cities and the other with multiple small branches located in one city. Therefore, the use of HR practices may be more likely to vary significantly among branches in Study 1 than in Study 2. Moreover, the variations in age and tenure in the two samples were not large, suggesting that the two samples of this study might be homogenous even though we still found significant moderation effects. Therefore, we suggest researchers to be cautious when they generalize the findings to other contexts and use other samples to verify our research findings.

Having said so, the consistent results from both studies provided some confidence of our research findings about the relationships between managers' and coworkers' HR perceptions and focal employees' HR perceptions and the moderating effect of age and tenure dissimilarity to coworkers on the relationship between coworkers' and employees' HR perceptions. Future research may extend our theoretical model by including outcomes of employees' HR perceptions (e.g., attitudinal and behavioral outcomes) and examine whether employees' perceptions play a mediating role in the relationship between the intended and actual HR practices and employee outcomes and whether the moderators may change the

mediating process through employees' HR perceptions. Future research on this topic may deepen our understanding of the difference in employees' perceptions of and reactions to HR practices.

Conclusions

Using two field studies, the current research integrated the social information processing perspective into the strategic HRM literature to demonstrate the concurrent impact of managers and coworkers on employees' perceptions of HR practices. Furthermore, this study found that the relationship between coworker-perceived and employee-perceived HR practices was strengthened when employees are more similar to coworkers in terms of age and organizational tenure. However, the relationship between manager-perceived and employee-perceived HR practices was not affected by similarity in any demographic characteristics. We hope the current research will encourage future research endeavors to help better explain the factors that shape employees' understandings of HR practices and how these understandings influence subsequent employee outcomes.

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