

CHAPTER 5

LOOKING BACK TO MOVE FORWARD: A 20-YEAR OVERVIEW AND AN INTEGRATED MODEL OF HUMAN RESOURCE PROCESS RESEARCH

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ABSTRACT

Human resource (HR) process research emerged as a response to questions about how (bundles of) HR practices related to organizational outcomes. The goal of HR process research is to explain variability in employee and organization outcomes by focusing on how HR practices are intended (adopted) by senior managers, the way that these HR practices are implemented and communicated by line managers, and how employees perceive, understand, and attribute these HR practices. In the first part of this chapter, we present a review of 20 years of HR process research from the start, to how it developed, and is now maturing. Within the body of HR process research, several different research theoretical streams have emerged, which are largely studied in isolation without benefiting from each other. Therefore, in the second part of this chapter, we draw on previous work to propose a staged process model in which we integrate the different research streams of HR process research, recognizing contingencies in the model. This leads us to an agenda for future research and practical implications in the final part of the chapter.

Keywords: Employees' perceptions of HR practices; HR attributions; HR implementation; HR process research; HRM system strength; intended HR practices

INTRODUCTION

There is a long-standing tradition in (strategic) human resource management (HRM) research to examine the effects of HR practices on organizational performance (Boon et al., 2019; Combs et al., 2006; Huselid, 1995; Jiang et al., 2012). To understand the so-called “black box” between HRM and performance (Purcell et al., 2003; Wright & Gardner, 2003), scholars have focused primarily on relationships between the content of individual HR practices – such as recruitment and selection, training and development, performance appraisal, remuneration, and rewards – and different organizational outcomes such as profit, revenue, and turnover of the organization. Recognizing that individual HR practices are likely interdependent on each other (Delery, 1998), research has also focused on the implications of combinations of individual HR practices, also called bundles or systems of HR practices, such as high-performance work systems (HPWS; Appelbaum et al., 2000) or high-commitment HR practices (Collins & Smith, 2006).

The relationship between (bundles of) HR practices and organizational performance has traditionally been explained with theoretical frameworks at the organizational level (see Bednall et al., 2022). For instance, the resource-based view of the firm (Wright & McMahan, 2011) assumes that bundles of HR practices support firm performance by attracting, developing, and retaining top-performing employees whose skills and contributions align with the strategy of the organization. This enabled scholars to demonstrate that bundles of HR practices are related to organizational outcomes which can help organizations become more effective and achieve a competitive advantage (Jiang et al., 2012). While strategic HRM scholars have often assumed that these bundles of HR practices are also beneficial for employee outcomes, empirical studies indicate that this is not always the case (Jensen et al., 2013; Kroon et al., 2009), which suggests that there is variability between individuals and organizational units in the effectiveness of HR practices, and that some HR practices which are designed to increase organizational performance may, at times, do so at the expense of individual employees (e.g., increasing job demands).

This growing evidence that even in the same organization, employees can perceive and respond to HR practices differently led to new theoretical developments. For instance, some variability in employee outcomes can be explained by how bundles of HR practices are communicated in the organization (Den Hartog et al., 2013) and by how employees interpret and understand these bundles of HR practices (Nishii et al., 2008). Building on these ideas, some HRM scholars have (re)framed the HRM-performance relationship as a communication challenge. This has led, over the past two decades, to increased attention on the “HR process,” suggesting that how HRM is communicated, received, and understood shapes employee outcomes (see Bowen & Ostroff, 2004; Guest, 2021; Hewett et al., 2018; Nishii et al., 2008; Ostroff & Bowen, 2016; Sanders et al., 2014, 2021; Wang et al., 2020). The goal of HR process research is to explain variability in employee outcomes by focusing on how HR practices are intended (adopted) by senior managers, how they are implemented and communicated by line managers, and

how employees perceive, understand, and attribute these HR practices (Nishii & Wright, 2008; Sanders et al., 2021a; Wright & Nishii, 2013).

In the first part of this chapter, we present a 20-year overview of HR process research in three stages. We first discuss the origins of the HR process approach including the (staged) process model of strategic HRM proposed by Wright and Nishii (2013¹), and two research frameworks which further elaborate the core elements of the process model: the strength of the HRM system (Bowen & Ostroff, 2004) and HR attributions. Second, building on this body of work, researchers started to test and replicate the hypotheses and propositions of these “early years” papers. This is reflected in a growing body of empirical research and the publication of three special issues: one in *Human Resource Management* (Sanders et al., 2014), one on HR attributions in *Human Resource Management Journal* (Sanders et al., 2021b), and one focusing on evidence from Asia in *Asian-Pacific Journal of HR* (Sanders et al., 2022). We call this stage “the development of the HR process research.”

The third stage of HR process research can be seen as the “maturing of the HR process field,” which is reflected in growing meta-review and critical discussion of the body of work. For instance, in 2016, after winning the *Academy of Management Review*’s Decade Award, Ostroff and Bowen reflected on their HRM system strength model; Hewett et al. (2018) reviewed the growth of attributional perspectives in the HR process research; Wang et al. (2020) published a review on the “what,” “why,” and “how” of employees’ perceptions of HR practices; a handbook on HR process research brought together different perspectives (Sanders et al., 2021a, 2021b); and the first meta-analysis on perceived HRM system strength² research was published (Bednall et al., 2022). The maturing of this body of work is reflected in a quote from Patrick Wright in the handbook on HR process research: “While the issues and debates around the content of HR practices have not ebbed, today more attention focuses on the processes through which these practices work.” While we discuss the important publications and events in the development and maturing stages of HR process research, we do not aim to provide a complete review of all the work related to this research but rather a helicopter view for scholars new to HR process research or more experienced researchers to take a step back.

While the different streams of HR process research reviewed in the first part of our chapter are maturing, they still operate mainly in silos with limited interconnection. We argue that this is a missed opportunity in making progress in the field of HR process research. Therefore, in the second part of this chapter, we propose a process model which incorporates theories of HRM system strength and HR attributions, which dominate the HR process research (Sanders, 2022; Sanders et al., 2021a, 2021b), and focus on the core elements of the staged process model. In addition, one of the weaknesses of the research streams within the HR process research is an unanswered question about the universality of HR process models across organizational or national contexts (see Bednall et al., 2022; Farndale & Sanders, 2017; Sanders et al., 2021a, 2021b). Therefore, we consider these contingencies in our revised staged process model. In the final part of this chapter

(Part 3), we discuss future research related to our revised staged proposed model and the practical implications of HR process research.

PART I. THE START OF HR PROCESS RESEARCH

In this chapter, we draw on three articles that have particularly influenced the theoretical basis of HR process research: (a) [Wright and Nishii's \(2013\)](#) theoretical chapter “Variability within Organizations: Implications for Strategic Human Resource Management,” (b) [Bowen and Ostroff's \(2004\)](#) theory paper “Understanding HRM-Firm Performance Linkages: The Role of the ‘Strength’ of the HRM System,” and (c) [Nishii et al.'s \(2008\)](#) conceptual and empirical paper, “Employee Attributions of the ‘why’ of HR practices: Their Effects on Employee Attitudes and Behavior.” In the following sections, we introduce these three papers and consider their impact on HR process research.

Wright & Nishii's HR Process Model

[Wright and Nishii's \(2013\)](#) process model of strategic HRM is inspired by the reflection that existing, content-based approaches did not adequately explain variation in the relationship between bundles of HR practices and organizational performance. They argue that variability within organizations provides important and interesting insights into the role of HR practices concerning individual-, group-, and organizational-level outcomes (see [Fig. 1](#)). The main argument in their process model is that the desired outcomes of HR practices as designed and adopted by management (referred to as *intended* HR practices) may be diluted, or changed, by the way that practices are implemented by managers (*actual* HR practices), which shapes how practices are *perceived* by employees.

There are three key implications of [Wright and Nishii's \(2013\)](#) chapter. First, the HR practices intended by organizational decision-makers are filtered through line managers, who are responsible for “bringing practices to life” ([Purcell &](#)

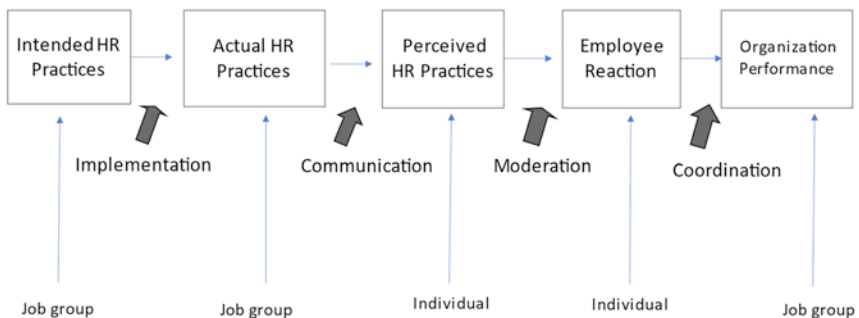


Fig. 1. The Process Model of SHRM (Adopted From [Nishii & Wright, 2008, p. 7](#)).
Source: [Nishii and Wright \(2008, p. 7\)](#).

Hutchinson, 2007, p. 16; see also Guest, 2021). This can explain the variability between organizational units in how HR practices are experienced by groups of employees. The relationship between intended and actual HR practices is then moderated by factors such as line managers' leadership style (Daniel, 1985), personalities and behaviors (Schneider & Reichers, 1983). Other moderating effects at the group level on the relationship between actual HR and employees' perceptions include social interaction and common experiences among members of the group (James et al., 1988; Kozlowski & Hatstrup, 1992).

The second implication is that there is a difference between the HR system objectively stated in policies and procedures (HR content) and the subjective experience of the HR system by individuals or groups of employees. This draws on a core principle of psychological climate research (James et al., 1990; Schneider, 1987): it is people's subjective perceptions that drive behavior rather than objective characteristics of the environment. When Nishii and Wright (2006) published their first working paper the small body of HR research which explicitly addressed employees' perceptions of HR practices often confounded perceptions with objective characteristics rather than recognizing these as meaningfully different constructs.

The third implication is that the way that employees perceive HR practices influences their attitudinal and behavioral responses to the practices. This draws on theories of social cognition, which suggest that employees attach different meanings to social stimuli based on the frameworks that they use to make sense of social information (Fiske & Taylor, 1991). It means that, even if employees perceive bundles of HR practices in their organization in a similar way, they will not always respond consistently. Individuals' responses are shaped by their motivations (Locke & Latham, 1990), past experiences (Rousseau, 2001), demographic background (Cox, 1993), values (Judge & Bretz, 1992), and personalities (Hough & Schneider, 1996). Nishii and Wright (2008) therefore argue that it is important to understand the relationship between employees' perceptions and their responses and to consider the factors which moderate this relationship when explaining the overarching relationship between bundles of HR practices and organizational performance.

Bowen and Ostroff's HRM System Strength

In their *Academy of Management Review* paper and based on the work of Ferris et al. (1999), and their earlier chapter on multilevel research in organizations (Ostroff & Bowen, 2000), Bowen and Ostroff (2004) explain the process by which employees make sense of HR practices within an organization by drawing on the co-variation principle of Kelley's (1967, 1973) attribution theory as their organizing framework. The co-variation principle suggests that, when people observe behaviors or events, they draw on multiple instances of the behavior or event across both time and situations to interpret its meaning. As such, they employ a co-variation principle to determine the cause of the behaviors or events based on three features: distinctiveness, consistency, and consensus. Distinctiveness refers to the extent to which the event or behavior "stands out"

in its environment, thereby capturing the attention and arousing the interest of observers (Kelley, 1967, p. 102). Consistency refers to similarity across time and modality. If the behaviors or events are the same across situations, observers perceive the situation as consistent. Consensus is the similarity of behaviors across observers. If many observers perceive the situation in the same way, the consensus is high.

The first implication of the HRM system strength model is that it provides a theoretically grounded explanation for “the features of an HR system that send signals to employees that allow them to understand the desired and appropriate responses and form a collective sense of what is expected” (Bowen & Ostroff, 2004, p. 204), which describes when and how individual perceptions of HR practices can be shared among employees. HRM system strength (the meta-features of distinctiveness, consistency, and consensus of the HR system) therefore explains how HR as a system “can contribute to organizational performance by motivating employees to adopt desired attitudes and behaviors that, in the collective, help to achieve the organization’s strategic goals” (p. 204).

The second implication of this model is in providing a theoretical basis to examine the strength of the HRM system. Bowen and Ostroff (2004) used the three meta-features of distinctiveness, consistency, and consensus as an organizing framework for nine specific characteristics relevant to the HR system. Distinctiveness comprises visibility, understandability of HR practices, the relevance of HR practices to strategic and individual goal achievement, and legitimacy of the authority of the HR function. Consistency includes instrumentality by establishing an unambiguous perceived cause-effect relationship between the HRM system’s desired content-focused behaviors and associated employee consequences; validity, in terms of consistency between the intentions and the reality of the practice and alignment (vertical and horizontal); and stability over time. Consensus is composed of agreement among message senders and fairness of practices. These features and meta-features work in concert to deliver HR messages. Based on the co-variation model of attribution theory (Kelley, 1967, 1973), when employees perceive HR as highly distinctive, highly consistent, and highly consensual, they attribute HR to the entity (management as representatives of the organization) so they understand what is expected from them (see also Sanders & Yang, 2016).

Finally, HRM system strength needs to be interpreted as a collective process; an indication of the psychological climate relating to the HR system. This collective process explains the emergence of a shared understanding of what is valued, expected, and rewarded in the organization. Bowen and Ostroff (2004) argue that organizational climate only emerges from individual perceptions of HR practices when HRM system strength is high (i.e., when employees perceive HR practices as distinctive, consistent, and consensual) because a strong system ensures shared perceptions. Conversely, when HRM system strength is low, individual perceptions of HR practices (psychological climate) tend to be idiosyncratic. Furthermore, a strong organizational climate will influence employees’ attitudes and behaviors in a positive way as it is clear to employees what to do.

Nishii et al.'s HR Attributions

Nishii et al.'s (2008) model of HR attributions explains how the relationship between bundles of HR practices and organizational performance-related outcomes is filtered through employees' beliefs about the intentions of their organization when designing and implementing HR practices. Their model draws on Heider (1958) and Weiner's (1979, 1985a, 1985b, 1986, 2008, 2018) theories of causal attribution, which suggest that individuals form explanations (attributions) for their own behavior and the behavior of others to enhance their ability to understand, predict, and control their environment (Wong & Weiner, 1981). A key dimension of Heider's (1985, 1986) attribution theory is the locus of causality, which concerns whether an individual considers the cause of behavior or an event to be internal (i.e., generated by the person) or external (i.e., generated by the situation). Drawing on this principle, Koys (1988) was the first to argue that employees can make an internal attribution if HR activities appear to be freely chosen by the organization ("out of a spirit of justice" or "to attract and retain employees") rather than forced by external pressures ("encourage individual or organizational performance" or "to comply with government relations"). The empirical results of Koys' exploratory research indicate that, while internal explanations are positively related to employees' commitment, external explanations are not.

Nishii et al. (2008) built on the work of Koys (1988) to propose a more systematic model of HR attributions. They define HR attributions as the beliefs that employees form about the intentions of management to design and implement HR practices. On the one hand, employees may believe that an HR practice is designed to comply with external factors such as trade union pressure. On the other hand, internal attributions are the beliefs that the actions of the organization are due to factors over which management has control. Nishii et al. (2008) argue that internal attributions are more complex than external attributions and, therefore, organize internal attributions along two dimensions: (1) the extent to which the (internal) attributions represent business goals versus employee-oriented goals underlying HR practices (based on research from the likes of Lepak et al., 2002; Osterman, 1994); and (2) whether a practice is designed to engender commitment or enforce control, which is based on a distinction highlighted by Arthur (1994). By crossing these two dimensions, Nishii et al. (2008) identify four types of internal HR attributions: service quality, employee wellbeing, cost reduction, and employee exploitation.

Using data from 4,500 employees and 1,100 department managers from a service firm, Nishii et al. (2008) found support for their theory that employees make varying attributions for the same HR practice. Their results indicate that these HR attributions are differentially associated with employee commitment and satisfaction. Specifically, the attributions that HR practices motivated by an organization's concern for enhancing service quality or employee wellbeing (commitment attributions) are positively related to employee commitment and satisfaction whereas attributions focused on reducing costs and exploiting employees (control attributions) are negatively associated with these attitudes. External attributions involving union compliance were not significantly related to these

theoretical outcomes. They further found that these attitudinal outcomes were related to different dimensions of employee organization citizenship behaviors, which were in turn related to customer satisfaction at the group level.

The HR attributions model contributes, first, to our understanding of variability in individuals' responses to the same HR practices. By drawing on principles of attribution theory from social psychology (e.g., Heider, 1958; Weiner, 1985a, 1985b), the HR attributions model provides a theoretically grounded explanation for variability at the individual level. As the role of attributions in social life is well-established – both theoretically and empirically – it provided a much-needed organizing framework for the growing body of work on employee perceptions of HR practices. Second, the dimensional structure of Nishii et al.'s (2008) model provides a generalizable model to understand how bundles of HR practices, or individual HR practices, are interpreted by employees and the implications of this interpretation for outcomes at the individual, group, and organizational level. This model also offers a springboard for research to examine how these attributions are shaped by stimuli from the environment around employees (e.g., their manager, colleagues, and communication processes) and employees' internal schema (e.g., personality, prior experiences, and values).

THE DEVELOPMENT OF HR PROCESS RESEARCH

The three papers introduced in the previous section (Bowen & Ostroff, 2004; Nishii et al., 2008; Wright & Nishii, 2013) provided fuel for the fire for the new sub-field of strategic HRM research and have inspired scholars to dig further into the “black box” between (bundles of) HR practices and performance. The process model provides a broader guiding framework on which the HRM system strength and HR attributions theories elaborate. Despite the fact that these seminal papers are highly cited in the (HR) management literature, the number of empirical studies that tested the different models are relatively low. For instance, Bowen and Ostroff's paper (2004) is cited 1,711 times (Web of Science, January 2023) yet the meta-analysis of Bednall et al. (2021) reported 42 empirical papers on this topic; Nishii et al. (2008) is cited 766 times (Web of Science, January 2023) but in her review of the HR attribution research, Hewett (2021) found 17 empirical papers and, applying slightly different parameters, Hu and Oh (2022) identified 34 empirical papers that tested Nishii et al.'s model.

Empirical Shift: From Content to Process

In 2014, the first special issue on HR process research, entitled “Is the HRM Process Important?” was published (Sanders et al., 2014). In their editorial, Sanders et al. (2014) content analyzed all submissions for the special issue and concluded that they all examined perceptions of and attributions about HRM. Even when HRM practices seem to be central in the article, the authors were mainly focused on the perceptions that employees hold about such practices. This indicated that the process view of HRM at that time was strongly built on the

intermediate and/or direct role of employees' attributions and perceptions of their organization. This special issue on the HR process research contained articles from two research streams: the process model (Nishii & Wright, 2008; Wright & Nishii, 2013) and HRM system strength (Bowen & Ostroff, 2004). While work on HR attributions is mentioned in the introduction of the special issue, no articles in this special issue focused on this research stream, which was slower to take off (Hewett et al., 2018).

Reflective of a shift in theory from the content of HR systems to the process between practices and organizational performance, most of the articles in the 2014 special issue contained both perspectives. For example, Aksoy and Bayazit (2014) adopted Bowen and Ostroff's (2004) HRM system strength model and tested it within the context of a management-by-objectives (MBO) system. Sumelius et al. (2014) likewise brought together the content and process perspective to address the question "What determines employee perceptions of HRM process features?" Their study aimed to explore influences on employee perceptions of the visibility, validity, procedural, and distributive justice of performance appraisal in subsidiaries of multinational corporations and at what levels these influences reside. Katou et al. (2014) investigated the impact of an HRM system (integrating both the content and process of HR practices) on organizational performance through collective employee reactions. Finally, Piening et al. (2014) focused on empirically examining the gap between intended and implemented HR practices, drawing on the work of Wright and Nishii (2013).

From HRM System Strength to Perceived HRM System Strength

One trend which is evident in the early years after the publication of Bowen and Ostroff's (2004) article is a shift regarding the level of analysis from organizational climate (shared perceptions), which was the focus of their theory, to individual perceptions of the meta-features of HRM system strength (distinctiveness, consistency, and consensus), as discussed by Ostroff and Bowen (2016). Sanders et al. (2008) were one of the first to test the HRM system strength framework, in a study among employees, line managers, and HR managers working in four hospitals in the Netherlands. They examined distinctiveness, consistency and consensus as the main effects, and shared perceptions of high-commitment HRM (organizational climate) as a mediator in the relationship between HRM system strength and affective commitment. They found that organizational climate did not mediate the relationship between HRM system strength and affective commitment as expected; instead, organizational climate moderated the relationship between individual perceptions of consistency and affective commitment. This study was replicated by Li et al. (2011), who examined how individual perceptions of HRM system strength and organizational climate were associated with hotel employees' work satisfaction, vigor, and intention to quit in the Chinese context. The distinctiveness of HRM system strength was found to be related to the three employee work attitudes. In addition, they found that organizational climate strengthened the positive relationship between consensus and work satisfaction and the negative relationship between consensus and intention to quit. Similarly, Aksoy and

Bayazit (2014) included both (the shared perceptions of) HRM system strength and organizational climate in their research and found that HRM system strength was related to organizational climate. Other studies examined the effects of perceived HRM system strength on the individual level (Bednall & Sanders, 2017; Bednall et al., 2014, 2017; Frenkel et al., 2012a, 2012b, 2013; Frenkel & Yu, 2011).

This theoretical shift from climate to perceptions is also reflected in the measurement of perceived HRM system strength. Independently, teams from Belgium (Delmotte et al., 2012) and Portugal (Coelho et al., 2012) conducted several studies to develop measurements of perceptions of HRM system strength. Although these measures contain some similarities they also highlight differences. While Delmotte et al. (2012) found more than nine features in their factor structure, Coelho et al. (2012) found only one. In a later meta-analysis, Bednall et al. (2022) found that the most frequently used scale to measure perceived HRM system strength is that of Delmotte et al. (2012). Together, this body of work highlights a theoretical and empirical shift toward individual perceptions of the strength of the HR system.

Empirical Development of the HR Attributions Model

Despite the slow start most of the more recent empirical research on the HR process has been based on Nishii et al.'s (2008) model (Hewett et al., 2018). Much of the early research inspired by Nishii et al.'s study represents a replication of their model with differential outcomes and serves to elaborate the nomological net of HR attributions (Hewett, 2021). For example, multiple studies have found that commitment (service quality and employee wellbeing) attributions are positively related to affective commitment (Fontinha et al., 2012; Khan & Tang, 2016; Van De Voorde & Beijer, 2015), job satisfaction (Tandung, 2016; Valizade et al., 2016), performance-related outcomes (Chen & Wang, 2014; Yang & Arthur, 2019) and negatively related to intention to quit (Lee et al., 2019), thus supporting the findings of Nishii et al. (2008). Additionally, control (cost reduction and employee exploitation) attributions have been related to stress-related outcomes such as work overload, emotional exhaustion, and burnout (Shantz et al., 2016; Van De Voorde & Beijer, 2015; Wang et al., 2020).

A smaller number of studies examined theoretical antecedents to HR attributions, in particular high-performance work practices (HPWPs; Van De Voorde & Beijer, 2015; Sanders et al., 2021a, 2021b). For example, Van de Voorde and Beijer (2015) found that the presence of HPWPs, as rated by unit managers, was positively related to commitment attributions from employees. In a vignette-based experimental study in combination with a cross-sectional survey, Sanders et al. (2021a, 2021b) found that employees' perceptions of HPWPs were positively related to service-quality attributions and negatively related to cost-reduction attributions. Hewett et al. (2019) applied Kelley and Michela 1980s principles of information (perceptions of distributive and procedural fairness), beliefs (organizational cynicism), and motivation (perceived relevance) as the antecedents of HR attributions to study the purpose of workload models for academic faculty in the UK. They found that fairness

and cynicism were more important for the formation of internal attributions of commitment than for cost-reduction or exploitation attributions. Two of these studies also considered the interactions between various antecedents to explain HR attributions: Sanders et al. (2021a, 2021b) examined the moderating effect of the power-distance-orientation and found that the relationships between HPWP and HR attributions (service-quality and cost-reduction attributions) were stronger for employees with a low-level of power-distance-orientation, indicating that individuals who rely less on managers to shape their interpretations are more likely to perceive HPWP as it was intended. Hewett et al. (2019) found an interaction between organizational cynicism and perceptions of distributive fairness in predicting HR attributions, such that the perceptions of distributive fairness buffered the relationship between cynicism and control-focused attributions.

The steady growth of research applying the HR attributions framework is reflected in a special issue in the *Human Resource Management Journal* (Sanders et al., 2021b). Papers in this special issue served to further present some important empirical and theoretical questions about the HR attributions framework. For example, Montag-Smit and Smit (2021) demonstrated the value of the framework for understanding responses to specific HR practices. They examined the relationship between three dimensions of pay secrecy policies (i.e., distributive nondisclosure, communication restriction, and procedural nondisclosure) and employee trust in management, finding that HR attributions mediated the relationships between pay secrecy and trust in management. They also found that employee preferences for sharing pay information moderated some of these relationships; those unwilling to share personal pay information did not make negative attributions of secretive distributive pay policies. However, employees with a preference for disclosure concluded that pay secrecy had more malevolent intentions. Their novel contribution lies in their focus on the specific HR practice of pay secrecy and on the role of trust as an outcome. Alfes et al. (2021) considered, for the first time, how different HR attributions combine, recognizing that attributions are unlikely to be independent (Hewett, 2021). They found that a combination of wellbeing and exploitation attributions, which they call performance attribution, mediated the relationship between HPWPs and employee engagement. Fan et al. (2021) likewise furthered our understanding of the multilevel nature of attributions by examining the effect of team-level HR attributions. They found that transformational leadership moderated the relationship between team-level commitment attributions and team performance.

HR Process Research Goes Global: Evidence From Asia

In their 2022 special issue, Sanders et al. highlight that most HR research has been undertaken in Western, developed countries and generalized to contexts such as Asia-Pacific countries (De Cieri et al., 2021). This is important because evidence suggests that the Asia-Pacific region is a challenging and dynamic context for management research (Rowley, 2017) and evidence has emerged of low external validity

of management constructs in general to Asian-Pacific countries (Zhao et al., 2020). Neglecting important contextual considerations such as institutional factors and societal norms that may be unique and require an understanding of the local contexts in Asia-Pacific countries (Bhagat et al., 2010), may therefore hide important theoretical and empirical challenges.

Babar et al. (2022) aimed to create new knowledge regarding the boundaries of perceived HRM system strength based on the co-variation principle and drawing on the job-demands-resource model. Employees' religiosity, defined as an individual's religious beliefs and values that keep them motivated in their work practices (Lynn et al., 2009), was found to be a boundary condition of the moderating effect of perceived HRM system strength in the relationship between performance appraisal quality (clarity, regularity, and openness) and employees' proficient, adaptive, and proactive performance. The findings of this two-wave, multiactor study in Pakistan highlighted that the relationship between performance appraisal quality and employee performance is strongest when it is embedded within a strong HR system (high-perceived HRM system strength) and low religiosity, or in low perceived HRM system strength and high religiosity conditions, suggesting a compensation effect between perceived HRM system strength and employees' religiosity.

Jiang et al. (2022) presented a cross-level moderated mediation model arguing that, although many studies investigated the effects of HR practices on employee performance, it is unknown how top managers' beliefs about HR importance influence HRM effectiveness at the departmental level. Based on the upper echelon's theory, these authors empirically tested a trickle-down effect of top managers' belief in HR importance on employee performance. The results from a cross-level analysis among Chinese top managers, department supervisors, and employees suggested that top managers' belief in HRM importance was positively related to HRM competence, which, in turn, mediated the relationship between HRM importance at the firm level and HRM effectiveness at the departmental level: the effectiveness of HRM as evaluated by department supervisors had a significantly positive relationship with employees' perceived HR practices, and the effectiveness of HRM as evaluated by department supervisors was indirectly related to employees' performance through their perceived HR practices.

MATURING OF HR PROCESS RESEARCH

The maturity of this body of work is reflected in several review papers (Hewett et al., 2018; Hu & Oh, 2022; Ostroff & Bowen, 2016; Wang et al., 2020), book chapters (featured in the edited book by Sanders et al., 2021a), and meta-analyses (Bednall et al., 2022) and has taken a high-level view of HR process research. These reviews not only summarized previous research but also introduced new lines of enquiry based on critical questions about the application and development of these streams of research. These publications indicate that HR process research is maturing. In this section, we consider the key conclusions and remaining questions arising from these reviews.

Reflecting on the Strength of HRM System Research

In 2016, Ostroff and Bowen were invited to write a reflection on their decade award from *Academy of Management Review*, recognizing the contribution of their HRM system strength theory to management scholarship. Their review focused on how the construct of HRM system strength has been used in the subsequent years and linked this construct to related areas and topics such as strategic HRM, HRM architecture, social psychological constructs, and organizational climate. In this reflection article, they highlighted a significant difference between their theoretical model and its interpretation by many empirical researchers (as discussed in the section in this chapter on the development of HR process research). Bowen and Ostroff introduced HRM system strength as an organizational-level construct that explains how the use of HR practices creates unambiguous messages about the broader culture, climate, priorities, and values of an organization to its employees and work units. Most empirical studies, however, have interpreted the construct of HRM system strength in terms of employee perceptions of distinctiveness, consistency, and consensus and measured and examined its effects at the individual level by using the scales developed by [Delmotte et al. \(2012\)](#), [Coelho et al. \(2012\)](#), and others (see [Bednall et al., 2022](#)).

Although [Ostroff and Bowen \(2016\)](#) agreed that this perceived HRM system strength is a “meaningful construct” (p. 198), it is different from their original idea. Following [Delmotte et al. \(2012\)](#), Ostroff and Bowen see “perceptions of HRM system strength” “as an appropriate label for these idiosyncratic perceptions since they reflect processing of the social context that can, in turn, influence individual responses” (p. 198). Theories like social exchange ([Thibaut & Kelley, 1959](#)) and social information processing ([Salancik & Pfeffer, 1978](#)) seem to be well suited to explain the consequences of these perceptions of HRM system strength. As we highlighted earlier, most of these studies indicate that there is indeed a positive relationship between perceptions of HRM system strength and individual outcomes such as affective commitment, job satisfaction, knowledge sharing, informal learning outcomes, innovation, and identification and a negative relationship with negative emotions, burnout, and turnover (intentions). In this way, [Ostroff and Bowen \(2016\)](#) argue that perceptions of HRM system strength highlight that within-unit and within-organization variability as explained by [Wright and Nishii \(2013\)](#) can be linked to individual outcomes.

Reflecting this trend in how HRM system strength has been applied (as a perception rather than climate-level construct), [Bednall et al.’s \(2022\)](#) meta-analysis of 42 studies (comprising 65 samples and 29,444 unique participants) on perceived HRM system strength compared two competing hypotheses regarding the moderating or mediating effect of employee perceptions of HRM system strength on the relationship between bundles of HR practices and employee outcomes. Based on signaling theory ([Connelly et al., 2011](#)), these authors hypothesized that perceived HRM system strength acts as a mediator. On the other hand, based on the co-variation principle of attribution theory ([Kelley, 1967, 1973](#)), they alternatively hypothesized that perceived HRM system strength acts as a moderator. The results from this meta-analysis supported the mediating effect of perceived HRM system strength in the relationship between (bundles of) HR practices and employee and organizational outcomes.

Bednall et al.'s (2022) meta-analysis provide some directions for future HR process research, that is, perceived HRM system strength transfers (mediates) the effects of (bundles of) HR practices on employee outcomes instead of being independent of them and act as a moderator. Even when accounting for study characteristics, such as the operationalization of perceived HRM system strength, study design (cross-sectional versus longitudinal or experimental designs), industry, sampling strategy, and publication status, these authors detected a consistent pattern of the mediating effect of perceived HRM system strength and an inconsistent pattern regarding the moderating effect of perceived HRM system strength.

These conclusions should, however, be considered in light of concerns about measurement and validity highlighted by multiple authors (Hewett et al., 2018; Ostroff & Bowen, 2016; Sanders et al., 2021a, 2021b). For example, Sanders et al. (2021a) content analyzed 41 empirical research papers, including 19 peer-reviewed journal articles, seven working papers, six dissertations, and nine conference papers, and highlighted several empirical concerns regarding several types of validity which limit the conclusions drawn by this body of work. First, concerning the fit between the measures and the underlying constructs they are designed to represent. From the 41 studies in their content analysis, Sanders et al. identified 22 (61%) which included data regarding perceived HRM system strength and outcomes from the same source (employees), raising concerns about construct validity. Second, it is a perennial concern about the extent to which causal conclusions can be drawn from studies on perceived HRM system strength (issues also discussed by Hewett et al., 2018; Wang et al., 2020). Twenty-eight articles out of the 41 (68%) in the Sanders et al.'s (2021a) review relied on cross-sectional research designs (including some two-wave studies) with only one experimental study (Sanders & Yang, 2016). The majority of studies also focused only on the individual or employee level (69%), without paying attention to the team or organization level. Overall, the conclusion from the authors is that the validity of perceived HRM system strength research can be further improved through the adoption of research designs that permit stronger conclusions about causality. Increasing the validity is important to address challenging problems and produce findings that contribute to a robust body of knowledge (Bainbridge et al., 2017) and can be used by practitioners to pursue evidence-based management (Barends & Rousseau, 2018).

A Critical Look at HR Attributions Research

In a critical review of HR attributions research, Hewett (2021) reviewed 17 empirical and conceptual papers as the basis of an agenda for future research. The analysis focused on three areas: (a) the positioning of HR attributions in the HR process chain, (b) the dimensional structure of HR attributions, and (c) the context of HR attributions concerning specific HR practices. The first issue relates to the extent to which attributions are distinct from more general perceptions (Beijer et al., 2021). In the second issue, Hewett highlighted some inconsistencies in how the dimensions of HR attributions have been operationalized and potential overlaps in the definition and measurement of performance-related attributions.

For example, while Nishii et al. (2008) used the term “employee exploitation” to describe the control-based, employee-focused attributions, van der Voorde and Beijer (2015) labeled the same survey items as a performance attribution which taps into the commitment-based, employee-focused attribution. The final issue relates to the extent to which attributions should be considered in the context of specific practices, building on a small number of studies that examine specific HR attributions (e.g., Hewett et al., 2019; Montag-Smith & Smit, 2020). Here, Hewett concludes that more consideration should be given to context and meso- and macro-level influences on attribution formation.

The maturing of HR attributions research has seen several similar discussions about the generalizability of the attribution framework based on concerns about inconsistencies in empirical studies (see also Hewett et al., 2018). This has led to suggestions that HR attributions should be integrated with other theoretical perspectives to both test the boundaries of the theory and explain more of the HR process. Given the theoretical basis of the HR attribution framework, Hewett et al. (2018, 2019, 2021) have also called for research to “better integrate HR attributions both with existing, more established, HR theories and by drawing inspiration from the expansive body of work on attributions in the social sciences” (Hewett et al., 2019, p. 29) that helps to explain how attributions are formed and shaped individuals’ understanding of their environment.

An attempt to integrate HR attributions with other established theories can be seen in the recent review by Hu and Oh (2022) in a chapter in *Research in Personnel and Human Resource Management*. These authors discussed the “why” and “how” of HR practices presented a critical review of the antecedents and consequences of employee HR attribution research. They concluded that notwithstanding several narrative reviews (e.g., Hewett, 2021; Wang et al., 2020) an overarching theory-driven, multilevel framework that helps to guide the antecedents and outcomes of employee HR attributions has been under-developed. They address this research gap by drawing on signaling theory (Connelly et al., 2011). In this, they highlight the signaler (line and HR managers), signal (HR practices content, HRM strength, HR salience, and message medium), and characteristics of the receiver (workplace experience, personality, and identity) as well as the signaling environment as the antecedents of employee HR attributions. On the side of the outcomes, they cluster individual and collective attitudes and wellbeing.

Finally, reflecting on the findings of their empirical conclusions about the important role of external HR attributions, Hewett et al. (2019) suggest an alternative dimensional structure for HR attributions. These authors propose a continuum ranging from more organization-centric (exploitation attributions) to more employee-centric (commitment attributions, employee wellbeing, and service quality), while cost-saving attributions are more ambiguous. Further, they suggest that this continuum applies to both internal and external attributions. Although this revised framework is yet to be empirically tested, it highlights a potential need to re-evaluate Nishii et al.’s (2008) typology and in general, more research to establish the consistency of the dimensional structure of the framework (Hewett, 2021).

PART II. A REVISED PROCESS MODEL: INCORPORATING HRM SYSTEM STRENGTH AND HR ATTRIBUTIONS

From our 20-year review in Part I, it is clear that scholars have started to ask more critical questions about how the different theories and perspectives can add to our knowledge about the HR process. One of the recurring themes focuses on how these related perspectives can be brought together to enrich our understanding of the HR process. How, for example, do HR attributions and (perceived) HRM system strength work in concert to help us understand the various stages in the process model of [Wright and Nishii \(2013\)](#)? How are HR attributions informed by (perceived) HRM system strength or how is (perceived) HRM system strength further shaped by HR attributions? Inspired by the need to provide a more coherent explanation that cuts across the different streams of research, we propose an integrated model to understand the HR process. Before we present the integrated model, we review some previous studies that aim to connect the concepts of (perceived) HRM system strength and HR attributions.

Existing Research to Connect the (Perceived) HRM System Strength With HR Attribution Concepts

There have been some attempts to directly integrate the concepts of HRM system strength and HR attributions. For example, based on a review of 65 papers on the HR process from the lens of attribution theories, [Hewett et al. \(2018\)](#) proposed different pathways to bring these streams together. Most relevant to this chapter is their discussion about how HRM system strength and HR attributions might interact. One option is a cross-level interaction of which employee HR attributions might moderate their response to climate-level HRM system strength. Alternatively, a group-level interaction in which HRM system strength moderates the relationship between collective HR attributions and group-level outcomes. They conclude that more empirical research is needed to examine these interactions and that there may be multiple ways that HRM system strength and HR attributions relate to one another. They also call for researchers to pay attention to “the levels” that these two concepts represent explaining that “the two processes proposed above explain, respectively, consistency [system strength] and variability [attributions] in how individuals respond to HR practices” (p. 113).

[Li's \(2021\)](#) work shows another example of how these two concepts can be integrated. Li applied the elaboration likelihood model (ELM) to explain that HR professionals can be seen as the center of communication flows from management to employees. Based on the ELM, Li argued that HR attributions can be viewed as the central route relating to communication quality, while perceived HR credibility (i.e., the extent to which HR professionals are perceived as credible by employees) can be viewed as a peripheral route related to communication source credibility. Li contended that the perceptions of HRM system strength can improve both routes and, ultimately, alter employees' general

attitudes at work. However, Li acknowledges that more research on the combination of perceived HRM system strength and the ELM of information influence is needed.

Along with these two theoretical and conceptual works, some empirical studies have also been conducted to connect (perceived) HRM system strength with HR attributions. For instance, [Katou et al. \(2021\)](#) proposed and tested an integrated multilevel framework to examine the relationship between HRM content and organizational performance through the serial mediating mechanisms of HRM system strength, line manager HR implementation, and employee HR attributions. Using a sample of Greek private organizations with data from senior managers, line managers, and employees, they concluded that: (1) HRM system strength mediates the relationship between HRM content and line manager HR implementation; (2) line manager HR implementation mediates the relationship between HRM system strength and employee HR attributions; and (3) employee HR attributions mediate the relationship between line manager HR implementation and organizational performance. In the same special issue, [Guest et al. \(2021\)](#) applied signaling theory ([Connelly et al., 2011](#)) to position HRM system strength (indicated by agreement in HR practices between managers and employees) as a moderator to the relationship between HR practices implemented by managers and HR attributions made by employees. Using a sample of banking firms in Portugal, they found that implemented HR practices were attributed as commitment-focused in a strong HR system (high agreement in HR practices between managers and employees).

Finally, [Hu and Oh \(2022\)](#) posited that HRM system strength moderates the relationship between individual HR attributions and collective outcomes by fostering three emergent enabling states – cognitive states, behavioral processes, and affective states ([Ployhart & Moliterno, 2011](#)). They argue that a strong HRM system (high distinctiveness, consistency, and consensus) may fulfill these three emergent states leading to a shared commitment-focused HR attribution and ultimately a collective effort to improve team performance.

Overall, given the different studies, we can conclude that there is no clear theoretical direction and consistent evidence for how the different streams of HR process research, particularly how the two concepts of (perceived) HRM system strength and HR attributions should be integrated. The integration is important because it helps to identify the uniqueness of each construct and clarifies different parts of the HR process ([Wang et al., 2020](#)).

Introducing a Revised HR Process Model

We take [Wright and Nishii's \(2013\)](#) staged process model as the starting point for our revised process model, recognizing that intended HR practices as designed by HR management are implemented (primarily) by line managers to bring these practices to life, which then informs employees' perceptions of these practices, and leads to outcomes at the individual, group, and organizational levels. We elaborate on this existing process model in several ways. First, we suggest that (perceived) HRM system strength ([Bowen & Ostroff, 2004](#)) and HR attributions

(Nishii et al., 2008) can be integrated into this model to better explain the interconnections between the different stages and the roles that different actors play. Second, we draw on Kelley and Michela's (1980) work on attribution formation as the underlying framework to suggest various moderators at the different stages of the model. Third, we draw on the contingency, or best-fit, perspective (Delery & Doty, 1996; Rabl et al., 2014) to argue that the effectiveness of perceptions, understanding, and attributions of HR practices are likely to vary across contexts, especially across national cultures (Farndale & Sanders, 2017). Finally, while Wright and Nishii (2013) already positioned their staged process model as a multilevel model, we elaborate on this and explain mechanisms at different levels on the relationship between intended HR at the organization level on the one hand and outcomes at different levels on the other. Our proposed model is presented in Fig. 2.

Connecting HRM System Strength

Although there have been some attempts to integrate HRM system strength and HR attributions, there is no consistency in how these are theoretically positioned. For example, some have argued that (perceived) HRM system strength should be seen as a moderator between intended HR practices and individuals' HR attributions (Hewett et al., 2018), while other researchers argue that (perceived) HRM system strength should be considered as a moderator between actual HR practices implemented by line managers or the HR department and employee HR attributions (Guest et al., 2021; Li, 2021), or alternatively as a mediator between the content of the HR systems and line managers' implementation (Katou et al., 2021). These approaches assume that HRM system strength operates at the level of intended HR practices. In other words, HRM practices themselves signal system strength. Here, we take a different approach.

We suggest that HRM system strength can be integrated into the HR process model to explain actual HR practices as defined by Wright and Nishii (2013) instead of intended practices at the organizational level. Wright and Nishii suggest that actual HR practices are those implemented at the unit level (often by

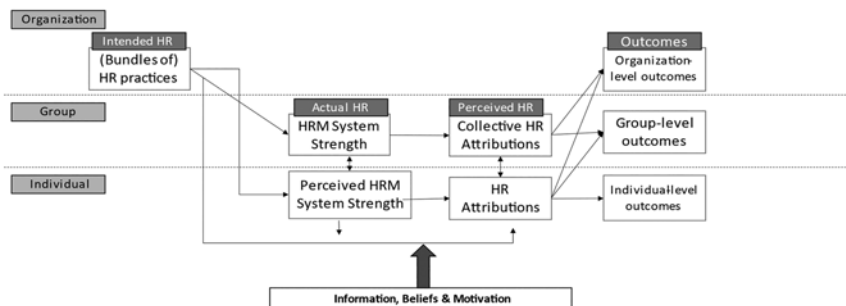


Fig. 2. A Revised Staged Process Model of SHRM.

line managers) which conveys information about HR practices to employees. This is therefore closely aligned to the HRM system strength construct as introduced by [Bowen and Ostroff \(2004, p. 204\)](#): “the features of an HR system that send signals to employees that allow them to understand the desired and appropriate responses and form a collective sense of what is expected.” Aligning HRM system strength with actual HR practices recognizes that HR practices, in themselves, do not send out signals about what is expected, valued, and rewarded by an organization. Rather, these signals are sent out through the HRM implementation process. For example, a written policy document sends no signals until it is communicated to employees or put to use in some way ([Hewett & Shantz, 2021](#)).

Positioning HRM system strength as an indicator of actual HR practices allows us to argue that HRM system strength should be considered at both the group and the individual level in the HR process model. This is aligned with the empirical work we reviewed earlier, which has demonstrated that both individual and collective perceptions of HRM system strength are meaningful and conceptually distinct. Based on a review of HR research drawing on attribution theories, [Hewett et al. \(2018\)](#) reflected that individual-level perceptions of HRM system strength explain the variance between employees’ responses to HR practices, whereas group-level HRM system strength mainly explains within-unit consistency and between-unit variance. This again highlights that both individual and collective perceptions of HRM system strength are informative.

A second implication is that perceptions of HRM system strength can be considered as interactive across levels. To explain this, we draw on research on composition and compilation ([Kozlowski & Klein, 2000](#)) to elaborate on the process through which perceived HRM system strength manifests at the higher level. The composition process pays attention to the emergence or manifestation of HRM system strength which arises from the similarity, consensus or sharedness among individual employees’ perceptions of HRM system strength within a group or unit. For example, it is likely that team members share perceptions regarding the meta-features of distinctiveness, consistency, and/or consensus, and these similar perceptions may manifest at the higher level as team-level HRM system strength. The compilation process explains how higher-level HRM system strength evolves through the configurations of heterogeneity and variability of perceived HRM system strength. Compilation pays attention to dissimilarity, dissensus, or disagreement among individual members’ perceptions of HRM system strength within group or unit. For instance, in one group there is a large difference regarding members’ perceptions of HRM system strength; in another group, this difference can be small. When the differences are used to configure perceived HRM system strength, the compilation process occurs. HRM system strength then emerges based on the (dis)similarity of perceived HRM system strength across members within a unit, group or organization ([Fulmer & Ostroff, 2016](#); [Kozlowski & Chao, 2018](#)).

Aligning HRM system strength to actual HR practices also feeds back to [Bowen and Ostroff’s \(2004\)](#) framework by providing a guide for relevant antecedents. [Bowen and Ostroff \(2004](#); see also [Ostroff & Bowen, 2016](#)) largely remain

silent about the antecedents of HRM system strength. By placing the construct of HRM system strength in the staged process model, the intended HR practices adopted by an organization will appear as one of the antecedents that influence the way that actors shape actual HR practices. The study of [Katou et al. \(2021\)](#), discussed earlier, shows some support for this line of reasoning.

Connecting HR Attributions

We bring HR attributions to the next stage of the HR process to explain perceived HR practices. As we discussed earlier in the chapter, there is a growing and consistent body of work which supports the theory that HR attributions shape individuals' responses to HR practices ([Hewett, 2021](#); [Hewett et al., 2018](#); [Wang et al., 2020](#)). The HR attribution framework provides a theoretically grounded model of employee perceptions beyond other descriptive and evaluative measures, which are more indicative of employees' general satisfaction and may be heavily influenced by affective experiences ([Beijer et al., 2021](#)). The positioning of HR attributions as a perception is supported by research on social information processing ([Salancik & Pfeffer, 1978](#)), which suggests that individuals understand their environment in three stages: "selection," "organization," and "interpretation and judgement" ([Fiske & Taylor, 1991](#)). The "selection" stage involves choosing stimuli, cues, and signals to which individuals pay attention. In the "organization" stage, individuals assign new information to familiar categories. In the HR process model, these first two stages concern employee perceptions of the actual HR practices. In the final stage of "interpretation and judgment," individuals translate the organized information and give meaning to the information and make judgments about this information. The stage of interpretation and judgment is also called "attribution" ([Kelley, 1973](#)).

Similar to the HRM system strength stage, we argue that HR attributions should be considered at both the individual and the group level as both add different explanations to the relationships between HRM system strength and outcomes. While [Wright and Nishii \(2013\)](#) mention that "considerable variation can occur at this [individual] level due to both variations in the actual HR practices (which would likely cause valid variance in perceived HR practices) and variation in the schemas that individuals employ in perceiving and interpreting HR-related information" (p. 102), they do not elaborate further on employees' perceptions of HR practices neither do they differentiate between the two levels of employees' perceptions.

The implication of placing HR attributions both at the group and the individual level in the "perceived HR practices" box is that HRM system strength is seen as directly antecedent to HR attributions. If HR information stands out, is consistent across time, and is agreed by different actors, employees will attribute their intentions in the way expected by management, and less variation will occur between actual HR practices indicated by the signals sent by the HRM system strength and perceived HR practices indicated by HR attributions. Several empirical studies support this line of reasoning. For example, recent research

from [Meier-Barthold et al. \(2022\)](#) suggests that individuals' HR attributions are directly shaped by the extent to which HR management provides clear and unambiguous messages about HR practices (indicating a strong HRM system). They investigated the variability in HR attributions among employees and the organizational factors that influence this variability. Using signaling theory and the concept of situational strength, these authors argue that employees' HR attributions vary less when signals sent by HR management are unambiguous and the conveyed information is consistent. In an online scenario-based experiment they found that HRM system strength significantly explained variability in (some) HR attributions among employees. A similar line of reasoning can be found by [Van de Voorde and Beijer \(2015\)](#) and [Sanders et al. \(2021c\)](#).

With HR attributions positioned in the stage of perceived HR, this naturally flows to outcomes. While there is consistent evidence that employees' HR attributions relate to various attitudinal and behavioral outcomes at the individual level ([Hewett et al., 2018](#)), a smaller number of papers have examined HR attributions at the group or team level ([Guest et al., 2021](#); [Katou et al., 2021](#)) and organizational level ([Guest et al., 2021](#); [Nishii et al., 2008](#)). Furthermore, there is a small amount of research that shared attributions at the team level are also important for group-level outcomes ([Fan et al., 2021](#); [Guest et al., 2021](#); [Nishii et al., 2008](#)).

A Framework of Moderators

The second part of our revised model aims to provide a theory-driven account of the factors which moderate the different stages of the HR process. [Wright and Nishii \(2013\)](#) highlighted that there are moderators in their theoretical staged process model. For example, they consider "communication" as a moderator for "the linkage between the actual HR practices and the perceived HR practices [which] represents the communication challenge" (p. 105). In addition, they mention schema and cognitive processes including the psychological contract ([Rousseau, 2001](#)) and social information processing ([Salancik & Pfeffer, 1978](#)) as potentially important moderators. For instance, Wright and Nishii suggest that individuals' past experiences of organizations which exploited them shape their cognitive schema, which can influence the relationship between actual and perceived HR practices. What this lacks, though, is an organizing framework, which we offer here.

We draw on the theoretical framework of [Kelley and Michela \(1980\)](#) as a guiding principle. This framework connects the co-variation model of attribution theory ([Kelley, 1967, 1973](#)) to causal attribution theory ([Weiner, 1979](#)). Thus, it offers various factors as the antecedents of causal attributions. [Kelley and Michela \(1980\)](#) argued that individuals draw on three sources when forming causal attributions. The first source is information about a stimulus including its features and the environmental context in which it exists. The second source refers to general beliefs about the causes and effects of the stimulus, which are based on prior and ongoing experiences ([Jones & Davis, 1965](#)). As they are formed over time and repeated experience, beliefs are more stable than information. The final source is

individuals' motivation to make attributions. The motivation element is aligned with the "salience" of the stimuli, which determines if employees are attuned to HR practices in their understanding of their work situation (Garg et al., 2021). This aligns with Bowen and Ostroff's (2004, p. 197) suggestion that none of the relationships

between HR and performance will manifest unless the practices are salient across employees so that they collectively come to know what the practices are and develop a shared understanding of the practices and their foci.

This could relate to specific HR practices, for example, whether they are seen as personally relevant (e.g., in the case of some diversity practices; Nishii et al., 2018) or more broadly to how employees see their employment. Employees who see their job mainly as a way to earn a living and feel less connected to their organization might be less sensitive in trying to understand the reason behind HR practices, for instance.

We suggest that Kelley and Michela's (1980) framework can be used to explain moderators to both the path between intended HR practices and HRM system strength and between HRM system strength and HR attributions (Fig. 2).

In Table 1 we provide some examples of moderators (based on the Kelley and Michela [1980] model) to the relationships between intended HR practices and HRM system strength and between HRM system strength and HR attributions. At the first stage, there is evidence, for example, that line managers' willingness (motivation) to engage in HR practices shapes their HR-related behavior (Bos-Nehles et al., 2013; Op de Beeck et al., 2016), and that they are motivated to implement HR practices when they feel the practices enable them to be more effective in their job (Kuvaas et al., 2016). Research also suggests that stable beliefs shape the way that practices are enacted such as stereotypical views (Leisink & Knies, 2011), prioritizing the importance of their HR role (Shipton et al., 2016), the values that managers hold (Arthur et al., 2016) and trust in senior management (Farndale & Kelliher, 2013).

Finally, the individuals responsible for enacting HR practices use information such as their organization's intentions (Hewett & Shantz, 2023), the extent to which they have clear information about their HR role (Gilbert et al., 2011; Kuvaas et al., 2016), and information about top manager support for HR practices (Stirpe et al., 2013), as well as factual information such as workforce diversity (Everly & Schwarz, 2015), to decide which practices to implement and how to implement them. Although these studies did not directly examine these factors as moderators between intended practices and (perceived) HRM system strength as we suggest in our model, they do support the fact that these variables inform implementation behavior, and as manager implementation and system strength are entwined (Gilbert et al., 2015) they would support our proposition.

On the path between HRM system strength and HR attributions, Hewett et al. (2019) explicitly made use of Kelley and Michela's (1980) framework to argue that HR attributions are influenced by information (in their study: perceptions of distributive and procedural fairness), beliefs (organizational cynicism), and motivation (perceived relevance). In their study, they did not explicitly measure HRM system strength but were focusing on a salient HR practice (workload models) so an interaction with the strength of this practice may be inferred. Additional

Table 1. Examples of Moderators in the Revised HR Process Model.

	Moderators: Intended HR Practices > HRM System Strength	Moderators: HRM System Strength > HR Attributions
Information	Implementer's ^a perception of: <ul style="list-style-type: none"> • Utility of the HR practice • Fairness of the practice • Content clarity of HR practices • Procedural clarity regarding how to implement the practice successfully (role or task clarity) Implementer's available time to implement practices (e.g., task allocation) Implementer's involvements of implementing HR practices	Employees' perception of: <ul style="list-style-type: none"> • Utility of the HR practice • Fairness of the practice • Content clarity of HR practice • Procedure clarity of HR practices
Beliefs	Implementer's perception of: <ul style="list-style-type: none"> • Senior decision-makers' intentions (HR attributions toward senior managers) • Competence of HR department (or those designing the practice) • General perception of senior decision-makers (e.g., cynicism) Implementer's management philosophy (e.g., strength of bottom line mentality; Babalola et al., 2020)	Employees' perception of: <ul style="list-style-type: none"> • Implementer's intentions (HR attributions toward implementer) • Competence of implementer of HR practice • General perceptions of implementer (e.g., cynicism) • Relationship with implementer (e.g., leader-member exchange) Employee's general philosophy toward work (e.g., bottom line mentality)
Motivation	Implementer's willingness to engage effort in the HR practice Personal relevance (or perceived relevance to employees) of the HR practice Role identity (e.g., does the implementer associate with their role as an implementer of HR practices) Implementer's personal value orientation	Personal relevance of the HR practice Employees' personal value orientation Employees' goal orientation (performance oriented or learning/development oriented)

^aWe refer here to “implementer” recognizing that line managers are not always responsible for implementing HR practices (e.g., in project-based organizations; Keegan & Den Hartog, 2019).

empirical research would also support this moderation. For example, employees' attributions about the intention of pay secrecy/transparency is informed by their preference for pay secrecy (Montag-Smit & Smit, 2020) which is a more stable belief; the role of communication processes as suggested by Wright and Nishii (2013) and empirically supported by Den Hartog et al. (2013) are mechanisms for information provision; and individuals are motivated to form perceptions of HR practices when they consider them personally relevant (as discussed in the review of diversity management practices by Nishii et al., 2018).

A Contingency-based Process Model

So far, the question of whether HR process research is more universalistic or more contingent on context is mainly ignored in empirical studies. While there

are some theoretical discussions (Farndale & Sanders, 2017; Hewett, 2021; Sanders et al., 2021a, 2021b, 2022; Wang et al., 2020) and some empirical studies regarding the influence of national culture on perceived HRM system strength (Sanders et al., 2018), none of them has been solidly empirically tested (Bednall et al., 2022; Sanders & Bednall, 2022).

Our suggestion that the stages in the HR process are moderated by motivation, information, and, particularly, beliefs justifies why the HR process may be more contingent on macro context, such as national culture. Newman and Nollen (1996) emphasize that “national culture is a central organizing principle of employees’ understanding of work, their approach to it, and how they expect to be treated” (p. 755). Research supports this idea that culture can influence how employees make sense of their environment and respond to signals (Fiske & Taylor, 1991; Sanders et al., 2014). For instance, in-group collectivism, defined as the degree to which individuals express pride, loyalty, and cohesiveness in their organizations or families (House et al., 2004), explains the attributional differences between West European and East Asian cultures (Hofstede, 1980, 1984). Western European cultures are in general more individualistic and people in such cultures tend to attribute behaviors and performances to dispositional or internal attributes. By contrast, East Asian cultures are generally more collectivistic and people in East Asian cultures tend to pay more attention to contextual or external attributes to explain behaviors and performance (e.g., Chiang & Birtch, 2007; Morris & Peng, 1994).

The best-fit argument is central to a contingency-based model. For instance, when applying a best-fit argument, Rabl et al. (2014; see also Newman & Nollen, 1996) argue that the use of HPWS fits better with an individualistic culture than a collectivistic culture, as people in individualistic cultures tend to focus more on rationality (House et al., 2004), which can be translated to a greater extent into ability, skills, and performance. Recently, Sanders et al. (2022) elaborated this best-fit argument to explain how the relationships between bundles of HR practices and perceived HRM system strength and between perceived HRM system strength and employee outcomes (discretionary behaviors and wellbeing) are contingent on the cultural value dimension of tightness-looseness, which is referred to as “the strength of social norms and the degree of sanctioning within societies” (Gelfand et al., 2006, p. 1226, 2011).

Together, this supports our argument that contextual factors, such as national culture, shape individuals’ beliefs, the information they receive about HR practices, and their motivation concerning salience and interpretation of practices. This, then, in turn, moderates the stages of the HR process model.

PART III. FUTURE CHALLENGES AND PRACTICAL IMPLICATIONS

In this final section, we build on our review of 20 years of HR process research, which led to our revised HR process model, as the basis of an agenda for future

research. While our review has highlighted the progress made in understanding the different stages in the so-called HR process between HR practices and organizational performance, it is also clear that many questions remain, and progress has been incremental in some areas. In Part 1 we already mentioned the differences between the popularity of the seminal papers in terms of citations and the relatively low number of empirical papers that aimed to test the models. Among the most obvious reasons why the number of empirical studies in the HR attributions and HRM system strength research streams to date is relatively low is the complexity of these frameworks (both theory and research methodology) and the number of resources necessary to study multilevel relationships (Beletskiy, 2011; Guest, 2011; Sanders & Yang, 2016). In this section, we highlight some areas which require further exploration but also call researchers to “think outside the box” on this topic. This raises new methodological challenges so after our theoretical questions, we highlight some methodological implications before moving on to what practitioners can learn from this body of work.

Future Research: Theoretical Questions

In this section, we discuss the following four theoretical questions and challenges that in our view should be central in future research regarding the HR process: (1) considering the HR process as a whole instead of isolated small elements of the HR process, (2) questions around HRM system strength and HR attribution across different levels of analysis, (3) questions around multiple actors to take into account in the different stages of the HR process, and (4) the importance of systematic research on context and moderators.

First, more integrated research including as many elements as possible of the revised model will lead to more progress in our understanding of the HR process. HR process research has mainly focused on employee-level outcomes when considering the consequences of perceived HRM system strength and HR attributions (Hewett et al., 2018; Wang et al., 2020) but remains relatively silent about the relationships between intended HR practices, (perceived) HRM system strength, HR attributions, and the effects on group and organizational level outcomes. By taking the whole revised process model, including outcomes on the group and organizational levels into account, more progress will be made, and a connection can be made with other strategic HRM research.

Second, we emphasize the importance of further research on HRM system strength and HR attributions across multiple levels of analysis. Important questions to answer here are: Are perceptions of HRM system strength and HR attributions at the employee-level the same as the aggregated constructs as collective HRM strength and collective HR attributions at the group or organizational level? How do HRM system strength and HR attributions at different levels interact with and influence each other? What are the antecedents and effects of HRM system strength and HR attributions at different levels? Recent empirical work mentioned earlier in this chapter by Meier-Barthold et al. (2022) is an example which addresses some of these questions. They investigated variability

in HR attributions among employees and how organizational factors influenced this variability. [Hewett et al. \(2018\)](#) likewise provided some steppingstones to explore the relationships between HRM system strength and HR attributions at different levels when they discussed some options for how HRM system strength and HR attributions might interact. For instance, employees' HR attributions might moderate their response to climate-level HRM system strength (cross-level interaction), or HRM system strength at the group or organizational level might moderate the relationship between collective HR attributions and group-level outcomes (higher-order interaction). Finally, the theoretical and empirical work on composition and compilation processes can be helpful to explore the relationships between HRM system strength and HR attributions at different levels ([Fulmer & Ostroff, 2016](#); [Kozlowski & Chao, 2018](#); [Kozlowski & Klein, 2000](#)).

Third, although there is growing recognition that the assumptions that senior managers always define the intentions of HR practices and that line managers always implement HR practices are untenable ([Hewett & Shantz, 2021](#); [Kehoe & Wright, 2013](#)), the majority of research on HR process is still based on these assumptions. Our revised model highlights that multiple actors can be involved in the HR process at different levels (e.g., individual versus collective sensemaking; see also [Bos-Nehles et al., 2021](#)) and at different stages. For instance, line managers and employees can be involved in the design of HR practices ([Hewett & Shantz, 2021](#)), senior managers and HR professionals are also recipients of these practices, employees may implement practices themselves (e.g., [Keegan & Den Hartog, 2019](#)), and multiple actors can shape the adoption of HR practices (e.g., influencing senior managers to adopt more sustainability-focused HR practices). More (theoretical) research is needed to explore the influence and interaction of multiple actors in the different stages of the revised process model.

Finally, future systematic research is needed to examine the extent to which the HR process is universal or contextual, inspired by the contingency model and best-fit model (see [Rabl et al., 2014](#)). Future research could consider the influence of other contextual variables. For instance, in addition to the cultural differences at the country level, contexts might also refer to employee differences at the individual level as it can be assumed that understanding (perceived HRM system strength) and attribution of the work environment is not only influenced by work-related factors (e.g., intended HR) and factors outside the work environment (e.g., home-life, social media, and social comparison to friends and family). Future research can better recognize that employees do not enter the workplace as a blank slate; they bring with them their past experiences, values, and beliefs that are formed as a result of how they have grown up and currently live and work ([Lupu et al., 2018](#); [Marquis & Tilcsik, 2013](#); [Thornton et al., 2012](#)) which can shape their evaluation of HR practices ([Aktas et al., 2017](#); [Heavey, 2012](#)). [Kitt and Sanders \(2022\)](#) systematically reviewed 19 empirical studies that investigated the role of "imprinting factors" in HR process research. Imprinting factors include hereditary, familial and parental influences, individual differences, non-work contextual factors, and cultural beliefs that can affect the way employees understand and attribute HRM in their organization. These scholars concluded that non-work-related factors play an important role in explaining employees' perceived HRM system strength and HR attributions.

Yet, despite the understanding that these factors are important for explaining why employees have different reactions to bundles of HR practices, this body of work lacks a consistent and coherent theoretical and conceptual framework that explains the mechanisms through which these factors exert their effects. More research to include these factors in the staged process model is needed in future research.

Future Research: Methodological Challenges

The three main methodological implications of our review (aligned to calls made by others; [Hewett et al., 2018](#); [Ostroff & Bowen, 2016](#); [Sanders et al., 2021a, 2021b](#); [Wang et al., 2020](#)) are (1) the need for more consideration of the construct definition of the different constructs in the revised process model, (2) the levels of analysis, and (3) matching research design to research questions.

While most reviews ([Hewett, 2021](#); [Ostroff & Bowen, 2016](#); [Sanders et al., 2021a](#); [Wang et al., 2020](#)) conclude that new, revised, and more comprehensive measurements are needed to measure (perceived) HRM system strength, HR process researchers continue to use measures which are questionable in terms of reliability and validity and are mainly limited to one level of analysis. Part of these reliability and validity issues are caused by a lack of a clear construct definition. [Ostroff and Bowen \(2016\)](#) argue that as long as scholars use different conceptualizations for the same constructs and use different measurements to measure these constructs progress in the HR process field is limited. We, therefore, call for more research on methodology issues in HRM system strength research. In this, following [Ostroff and Bowen \(2016\)](#), we call for alternative – if possible, more objective – ways to measure constructs at different levels. For instance, it is questionable whether surveys among employees, HR managers, and line managers are the most suitable way to capture HRM system strength at the group or organizational level. So far, only a few studies measured HRM system strength at a higher level (e.g., [Cunha & Cunha, 2009](#); [Guest et al., 2022](#); [Katou et al., 2014](#)), and measures are not consistent. To understand more how senior, line, and HR managers share information and employ HRM system strength in their communication with their employees, [Sanders et al. \(2020\)](#) coded emails that were sent from senior management over 12 weeks during the first wave of the COVID-19 pandemic from 39 universities in 16 countries. The emails that were sent from vice-chancellors, deans, and heads of schools were coded in terms of distinctiveness (standing out, understandability, and relevance), consistency (across multiple messages) and consensus (same message from different senders). In this project, 41 coders were involved, and the focus was on explaining under which circumstances vice-chancellors, deans and heads of schools employ HRM system strength in their communication with employees. A similar line of reasoning can be argued for the construct definition and measurement of the proposed alternative dimensional structure for HR attributions from more organization-centric (exploitation attributions) to more employee-centric (commitment attributions, employee wellbeing, and service quality), while cost-saving attributions are more ambiguous for both internal and external attributions as proposed by [Hewett et al. \(2019\)](#); see also [Hewett, 2021](#)), and the need to re-evaluate [Nishii et al.'s](#)

(2008) typology. Like our call for more objective measures to assess HRM system strength at different levels, we also call for more objective measures for (collective) HR attributions. In addition, new measures can be designed that combine HRM system strength and HR attribution in the communication from the line and HR managers to their employees.

Finally, we call for better consideration of the alignment between research designs and research questions. This can for instance be achieved by applying multiple methods to test the model. Given the fact that both Kelley's (1967, 1973) and Weiner's (1958, 1985a, 1985b) work have been tested with experimental methods, the HR process field needs to consider continuing this tradition along with using quantitative questionnaire surveys. In addition, composition and compilation issues about perceived HRM system strength to team or organizational HRM system strength, and HR attributions at the employee level to collective HR attributions at the group or organizational level can be studied via qualitative interviews, observations, or ethnographic research. New contexts (e.g., gig work, algorithmic management, or self-managing organizations) may require more fundamental, inductive qualitative research to move beyond incremental theory development. It would also be beneficial to look outside of the HR process field for inspiration to adjacent fields such as social psychology (from which both HRM system strength and HR attributions theory are derived) but also fields which address complex processes (e.g., operations management), the role of technology in HR processes (e.g., human-computer interaction), or understanding more about the role of multiple stakeholders in HR processes (e.g., sustainability research).

In our theoretical and methodological agenda for future HR process research, we understand that we call for more ambitious radical, long-term, high-risk research. This may not be appealing for researchers focused on a PhD trajectory or staff in tenure and/or promotion tracks where the need for fast research outputs are highly salient (Lin & Sanders, 2014). The current reward structures for receiving promotion and tenure at (high-ranked) universities do not seem to motivate radical, long-term, high-risk research, but seem to motivate incremental, low-risk, and short-term research, with negative consequences for the progress in a field. However, more long-term international collaboration across research teams and specialisms can be considered for more progress in the HR process research.

Practical Implications of HR Process to HR Professionals and Managers

A good understanding of the HR process is useful and helpful for HR practitioners and managers alike. Here we focus on two important features of the HR process – multiactor involvement and psychological attributions – to discuss their practical implications. Both the original HR process model (Wright & Nishii, 2013) as described in Part I and the revised HR process model as proposed in Part II have acknowledged and highlighted that multiple actors (e.g., top managers, line managers, HR professionals, and employees) are involved in the HRM process within organizations. With this piece of information in mind, HR professionals should not only pay attention to the content of HRM, such as how

to design HR strategy and how to set up HR policies and regulations but also take account of the interests and motivations of each party involved in the HR process. For instance, HR professionals need to think about how to motivate line managers to implement HR strategy and policies, how to effectively communicate HR strategy and policies to employees, and how to facilitate employees to make better sense of HR strategy and policies. With this mindset of approaching HRM, HR professionals may consider HRM as a process of branding internal clients and communicating or even negotiating HR strategy and policies between the parties involved. They can learn from and collaborate with the colleagues in marketing and communication departments about how to communicate the core messages by creating a strong HRM climate to make sure HR content can achieve its intended purpose.

As multiple actors participate in the HR process, HR professionals need to realize that there are differences in terms of perceiving and understanding HR content (i.e., strategy or policies and regulations). For instance, although line managers are considered an agent of management, they will have their own concerns or interests regarding HR strategy and policies, which may be different from the concerns or interests of top managers and frontline workers. From an HR process viewpoint, these disagreements represent reality rather than rhetoric. HR professionals need to communicate and negotiate these different perceptions and understandings to achieve a win–win outcome for all parties. For instance, they can take a top-down approach to strengthen HR signals sent from the top management by creating high-level HRM system strength and facilitating commitment-based HR attributions among employees. They can also take a bottom-up approach to employee sensemaking about HR strategy and policies, which develops an alternative path for communicating HR content. Often, these two approaches can take place simultaneously. To some extent, it is better to consider this process as a two-way communication or a management-employee negotiation facilitated by HR professionals. On this point, the HR process provides HR professionals with some new roles and functions in the management of people.

HRM system strength and HR attributions are placed at the center of the revised HR process model. One of the key features of these two concepts is that they highlight the importance of psychological attributions about HR in shaping employee behavior, which has practical implications to HR professionals and managers. To some extent, the process of psychological attribution is part of employees' sensemaking about HR and it places employees, rather than HR strategy and policies, at the center of people management. Complementing the resource-based view (Wright et al., 2001), the HR process approach reminds HR professionals and managers that employees are the focus of HRM. Moreover, the process of psychological attribution can take place at the individual level and at the collective level. HR professionals need to understand how individual employees make sense of HR as well as being sensitive to how collective sensemaking works. A practical recommendation to monitor employee psychological attributions of HR is to include measures of HR attributions in employee surveys. This can provide data for management to understand the missing link between HR practices and employee outcomes. Meanwhile, it will also serve as a feedback loop for HR professionals and managers to reflect on the HR strategy

and policies and understand how some HR policies lose their meaning in the process of reaching employees. In short, the HR process once again echoes the viewpoint that employees' subjective and subtle experiences of HRM are as important as explicitly articulated HR strategy and policies to employee and organizational outcomes.

NOTES

1. In this chapter, we primarily refer to the chapter of [Wright and Nishii \(2013\)](#) as this is the most elaborate explanation of the model but acknowledge the earlier working paper of [Nishii and Wright \(2008\)](#) and the chapter of [Wright and Nishii \(2008\)](#).

2. While different terms are used to describe (perceived) HR(M) (system) strength in the publications reviewed in the chapter, we follow the original term [Bowen and Ostroff \(2004\)](#) introduced – “HRM system strength” – for consistency.

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