

# Strong signals in HR management: How the configuration and strength of an HR system explain the variability in HR attributions

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## Abstract

In explaining the effectiveness of a human resource (HR) system within an organization, scholars have turned their attention to HR attributions, which capture employees' perceptions about the intentions behind their organization's HR practices, and have demonstrated that an HR system's content and process of communication drive employees to form specific HR attributions. However, current research has not yet explained why HR attributions differ among employees. We investigate the variability in HR attributions among individuals and the organizational factors that influence this variability. Using signaling theory and the concept of situational strength, we argue that employees' HR attributions vary less when signals sent by HR management are unambiguous and the conveyed information is consistent. Using an online scenario-based experiment with 760 participants, our findings reveal that the configuration and the strength of an HR system as well as their combination have significant effects on the variability in HR attributions among employees, and these effects differ for the different HR attributions.

## KEYWORDS

HR attributions, HR system, HR system strength, signaling, strong situations

## 1 | INTRODUCTION

Scholars in the field of strategic human resource management (HRM) have demonstrated that employees' perceptions about the intentions behind an organization's human resource (HR) practices – known as *HR attributions* – play an important role in understanding the link between HR practices and organizational performance (Hewett et al., 2018; Nishii et al., 2008; Sanders & Yang, 2016; Wang et al., 2020). While the majority of studies have focused on understanding how HR attributions are related to individual and organizational outcomes (e.g., Shantz et al., 2016; Van De Voorde & Beijer, 2015), scholars have recently begun to understand the factors that cause the formation of HR attributions (Alfes et al., 2020; Hewett et al., 2019; Wang et al., 2020) and have demonstrated that an

organization's HR system influences employees' attributions about the reasons why this system was implemented.

Based on the foundational work of Bowen and Ostroff (2004), strategic HR scholars have argued that HR systems should be designed and implemented in a way that elicits uniform responses among employees (Ostroff & Bowen, 2016; Van Rossenberg, 2021; Wang et al., 2020). When employees share an understanding of management's intentions, they show collective attitudes and behaviors which support their organization's strategic focus and ultimately result in higher organizational performance (Bowen & Ostroff, 2004). Additionally, a uniform understanding of goals fosters a shared sense of purpose, and employees develop similar thought processes, which facilitate working together effectively (Mathieu et al., 2000). While studies have demonstrated the importance of a uniform

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understanding in HR attributions (Fan et al., 2020; Guest et al., 2021), we know very little about factors that lead to variability in HR attributions. This is because most scholars view variability in HR attributions as a measurement error that needs to be reduced (Van Rossenberg, 2021), rather than as a variable that can be purposefully studied. In line with Van Rossenberg (2021), we take a different perspective and suggest that it is important to analyze causes of differences in perceptions among employees and to explicitly hypothesize variance differences related to HR attributions. Hence, the purpose of the present article is to advance our understanding of the factors through which HR systems lead to low variability in HR attributions among employees within an organization.

Building on signaling theory (Connelly et al., 2011) and the concept of situational strength (Mischel, 1973), we argue that employees draw from two sources of information when forming HR attributions: the content of an HR system and the process through which it is communicated to employees. We propose, first, that an HR system configuration with internal fit among HR practices sends a more unambiguous signal than an HR system configuration with internal misfit, resulting in lower variability in employees' attributions. Second, we suggest that the process of communicating the HR system to employees is relevant in influencing the variability in their response to the HR system. According to Bowen and Ostroff's (2004) concept of HR system strength, HR systems that are communicated in a distinct, consistent, and consensual manner lead to a uniform understanding among employees, suggesting low variability in HR attributions between individuals. Lastly, we expect an interaction of the configuration and strength of an HR system such that the variability is lower when consistent (compared to inconsistent) information is signaled.

Our study makes a number of contributions to the strategic HR literature. First, we advance knowledge by disentangling how the strategic intentions and communication of the HR system shape employee perceptions of this HR system. Integrating the research streams of HR content, process of communication, and HR attributions, we are able to better understand how the different components of the HR system complement each other to explain employees' perceptions (Guest et al., 2021). Scholars have called for integrative research of these streams, which hitherto have largely been considered independently (Ostroff & Bowen, 2016; Van Beurden et al., 2021; Wang et al., 2020). Whereas an independent consideration of the three research streams will always lead to an incomplete understanding of the HR system, combining the three streams in one study enables us to provide a holistic understanding of how HR systems unfold in organizations. We show that the HR content and the process of communication interplay to affect employees' HR attributions. Specifically, we use signaling theory to identify features of the HR system related to HR content (i.e., HR system configuration, internal fit) and the process of communication (i.e., HR system strength) which result in uniform employees' HR attributions. We extend the work of Guest et al. (2021) by examining different HR system configurations and the process of communication, as well as by separating their signaling effects on HR attributions. Through the integration of research streams, we were also able to generate new insights into each of the individual streams. Particularly, we advance research on

HR systems because we show how organizations' strategic intentions can be transferred to employees, underlining the importance of consistency in the HR system.

Second, we advance research on HR system strength by operationalizing HR system strength as a characteristic of the HR system rather than as employees' perceptions of the strength of an HR system. Previous research on HR system strength has mainly measured individual perceptions of HR system strength. However, individual perceptions can be biased and therefore reflect an individual's idiosyncratic interpretation of the work context and the nature of the HR system. Ours is one of the first studies to operationalize HR system strength as a higher-level characteristic of the entire HR system, thereby being closer to its original conceptualization (Ostroff & Bowen, 2016). We also advance research on HR system strength by analyzing a thus-far seemingly un-studied fundamental proposition of the construct—that is, the effects of HR system strength on the variability of employee perceptions (Sanders et al., 2021). While previous research has focused on the effect of HR system strength on average perceptions, understanding how it affects variability in perceptions means understanding whether a strong HR system does, indeed, lead to strong situations.

Third, we complement HR attributions research by advancing our understanding of the variability in employees' HR attributions and how uniform attributions can be generated. We go beyond existing research on the antecedents of HR attributions (Alfes et al., 2020; Guest et al., 2021; Sanders et al., 2019; Van De Voorde & Beijer, 2015) by focusing on the differences in employees' attributions of the same HR system. Scholars so far have analyzed which factors, on average, lead to higher versus lower HR attributions. While this focus is valuable, it neglects the informative value of the potential variability among employees' attributions of an HR system. This variability gives insights into the ambiguity of management's motives and how an HR system has to be designed to align attributions within a group of employees. Our study is therefore of specific value for HR departments, who are often faced with the challenge of managing a heterogeneous workforce where employee responses need to be aligned in order to support the organization's overall strategic goals.

Finally, our experimental design allows for credible causal statements about the link between HR systems and the variability in employees' HR attributions. In recent literature reviews, scholars criticized that, while the conceptual complexities of causal models in modern organizational and management research has increased, these complexities are often not adequately addressed in the design of empirical studies (e.g., Aguinis et al., 2017; Antonakis et al., 2010; Holland et al., 2017; Saylor & Trafimow, 2020). Being able to make credible causal statements is particularly valuable in HR process research, which seeks to map complex psychological processes and latent variables. For example, Sanders et al. (2021) identified the use of credible research designs as the most important improvement opportunity for HR system strength research. With inadequate research designs, scholars risk reporting false conclusions about relationships between constructs and about the effectiveness of management policies and practices. Following Saylor and Trafimow's (2020) call to focus on simple, but strong causal models, we provide a clear

theoretical narrative, simple conceptual causal model and a credible identification strategy to test the model, an experiment. Specifically, we conducted an online scenario-based experiment in which participants were randomly assigned to treatment groups that vary in terms of the configuration and strength of an HR system. Participants were recruited via Prolific with a cleaned sample size of 760.

## 2 | VARIABILITY IN HR ATTRIBUTIONS

At the core of attribution theories is the idea that individuals interpret and respond to events in their lives by reflecting about the perceived causes of these events (Kelley & Michela, 1980). When confronted with an event, such as an HR system, an individual consciously or unconsciously searches for and responds to information that indicates why a specific event happened, leading to the formation of causal attributions (Fiske & Taylor, 1991; Kelley & Michela, 1980). Scholars have drawn from attribution theories to explain how employees interpret and respond to the HR practices in their organization (Hewett et al., 2018). Specifically, they suggest that employees attach meanings to HR practices by trying to understand management's intention behind their implementation. Employee attributions about why management implements specific HR practices have an influence on their attitudes and behaviors, which in turn ultimately affect organizational performance (Nishii et al., 2008).

Nishii et al. (2008) developed five types of HR attributions that have since become established in the literature. Their typology distinguishes between internal and external HR attributions. Internal HR attributions refer to employees' perceptions that HR practices are implemented because of a choice made by management. Specifically, the authors argue that management can be motivated by an intention to align employees' attitudes and behaviors with business-related, strategic HR goals (e.g., Schuler & Jackson, 1987). Depending on an organization's strategic goals, HR practices can be implemented either to enhance product and service quality or to enhance cost effectiveness. Nishii et al. (2008) translated these strategic goals into HR attributions regarding *service quality* and *cost reduction*. A second dimension of management's motives behind the implementation of HR practices is related to its employee-oriented philosophy (e.g., Osterman, 1994). The literature differentiates between a philosophy aimed at maximizing employee well-being and one aimed at maximizing employee efficiency. Again, Nishii et al. (2008) use these potential philosophies to derive types of HR attributions regarding *employee well-being* and *employee exploitation* respectively. Nishii et al. (2008) further labeled service quality and employee well-being as commitment-focused HR attributions, whereas cost reduction and employee exploitation were grouped as control-focused HR attributions.

A fifth HR attribution included in Nishii et al.'s (2008) typology is an external HR attribution, *union compliance*, which captures perceptions that the organization designs its HR practices to abide by external pressures that are uncontrollable by the organization. Although we collected data on all five attributions to ensure the reliability of Nishii et al.'s (2008) original measurement scale, we develop hypotheses regarding the four internal HR attributions only. This is because the

factors in which we are interested are controllable by the organization in that top management makes a conscious decision to implement a certain configuration and strength of HR system.

According to attribution theories, individuals differ in how they process and attach meaning to observed information (Kelley & Michela, 1980; Tversky & Kahneman, 1974). Specifically, an organization's HR system can be used as a source of information through which management sends signals (Guest et al., 2021). The information that HR management signals then influences employees' attributions. However, signals can vary in their strength (Connelly et al., 2011), with weak signals leaving room for various interpretations. Consequently, it is possible that not all employees interpret an HR system alike and therefore differ with regard to the attributions they form about why HR practices are implemented in their organization (Ostroff & Bowen, 2016). In the following sections, we discuss the extent to which two features of an HR system (content and process of communication) can be perceived as signals sent by management which lead to low variability in HR attributions among employees.

## 3 | THE INTERNAL FIT OF AN HR SYSTEM AND VARIABILITY IN HR ATTRIBUTIONS

HR management sends a signal to employees through the actual HR practices in place. As employees are exposed to a system of HR practices, the HR practices included in the system (i.e., the content of the HR system) enable employees to make sense of the strategic goal that an organization's HR management pursues (Ostroff & Bowen, 2016) and to reach a conclusion regarding why certain HR practices are implemented in their organization (Alfes et al., 2020; Guest et al., 2021; Sanders et al., 2019; Van De Voorde & Beijer, 2015). According to signaling theory, signals are most effective in conveying the signaler's (i.e., HR management's) information to the receiver (i.e., employees) when the signals are characterized by clarity, frequency, intensity, and salience (Connelly et al., 2011). A strong signal reduces room for interpretation and clearly demonstrates the implications of certain attitudes and behaviors (Meyer et al., 2010).

Based on these considerations, we argue that systems of HR practices lead to lower variability in attributions among employees when there is internal fit (compared to internal misfit) between the practices included in the system. The internal fit of an HR system describes the degree to which the practices in a system are coherent, consistent, and strategically integrated (Delery & Doty, 1996). HR systems with internal fit comprise practices oriented toward one strategic goal (Becker et al., 1997; Delery, 1998). Delery and Doty (1996) proposed two ideal types of HR systems, a market-oriented HR system and an employee-oriented HR system. An ideal-type market-oriented HR system exclusively comprises practices directed toward efficiency and competition, like results-oriented appraisals and profit sharing and therefore signals *productivity*. Conversely, an ideal-type employee-oriented HR system focuses on long-term employment relationships within the organization and is characterized by practices such as internal career opportunities, extensive training and development, employment security and participation and therefore signals *commitment*.

Both types of HR systems, because of their internal fit, advocate high levels of clarity and consistency in the information transmitted to employees (Boxall et al., 2011). In other words, HR systems with internal fit serve as strong signals of management's intentions. However, HR systems can also have internal misfit and consist of practices directed toward opposing strategic goals, sometimes referred to as deadly combinations (Becker et al., 1997; Kepes & Delery, 2007). An example of such an HR system is one that includes both extensive trainings for teamwork and performance appraisals that reward individualistic behavior (Boxall et al., 2011). With internal misfit, the signal is weaker and less indicative of an organization's focus. Ultimately, this leads to high variability in employees' HR attributions.

**Hypothesis 1.** *Market-oriented (H1a) and employee-oriented (H1b) HR systems have a lower variability in employees' HR attributions than HR systems with internal misfit.*

## 4 | THE STRENGTH OF AN HR SYSTEM AND VARIABILITY IN HR ATTRIBUTIONS

A second signal relates to the process through which an HR system is delivered to employees (Ostroff & Bowen, 2016). HR scholars emphasize the importance of employer–employee communication, suggesting that the quality of management's HR communication has a significant impact on how employees perceive HR (Den Hartog et al., 2013). Bowen and Ostroff (2004) argued that the effects of an HR system depend on how the HR system is conveyed and communicated and whether a consistent message about the HR content is sent to the employees, regardless of the actual HR content. Based on Mischel's (1973) concept of situational strength and Kelley's (1973) covariation model, Bowen and Ostroff (2004) defined three meta-features of an HR system that together make up a strong HR system. Distinctiveness refers to the degree to which HR practices are visible, understandable and relevant for goal achievement as well as the degree of legitimacy of the HR function. Consistency reflects the degree to which HR practices establish clear cause-effect relationships, are valid and are communicated through consistent messages across employees. Finally, consensus describes the degree of agreement among message senders and whether the HR practices are fair.

The more distinct, consistent, and consensual a particular HR system is, the less ambiguous signals are sent by HRM about the nature of the HR system, rendering it more likely that employees will develop a uniform understanding about the HR content. Specifically, employees will have a clearer understanding of what is expected when HR management engages in clear communication about the different HR practices and encourages consistent application throughout the organization. As a result, if HR system strength is high, employees will have a clear and consistent understanding of the HR system, leading to lower variability in employees' attributions. Conversely, if HR system strength is low, employees will be faced with ambiguous information, which is likely to result in variability in HR attributions.

**Hypothesis 2.** *The higher the strength of an HR system is, the lower will be the variability in employees' HR attributions.*

## 5 | COMBINED EFFECT OF CONFIGURATION AND STRENGTH OF AN HR SYSTEM

Although the internal fit and strength of an HR system have direct effects on the variability in HR attributions, we argue that it is also important to consider the combined effect of the configuration and strength of an HR system. Meyer et al. (2010) noted that, ultimately, the strength of a situation is a function of the single effects of each of the signals but that the precise form of this function remains unclear, especially when signals contradict each other. When employees are confronted with multiple HR signals (i.e., HR system configuration, strength of an HR system), they will interpret the combined information of all the signals to come to a meaningful conclusion about what is expected from them. Contradicting information leads to ambiguity and variability in how employees form their attributions. We argue that the configuration of the HR system and the strength of the HR system are two separate signals that interact. As such, each of those signals holds information that feed employees' interpretations about what is expected from them. The configuration of the HR system holds information about the strategic goals that an organization's HR management pursues (i.e., content), while the strength of the HR system holds information about how the HR system is delivered to employees (i.e., process). Below we develop arguments for the different combinations of the configuration and strength of an HR system and the subsequent implications for variability in HR attributions. We focus our argumentation on the consistency of these signals. The four combinations are shown in Table 1.

A market-oriented HR system with internal fit signals HR management's intention to focus on productivity in the employment relationship (Delery & Doty, 1996), because it consists of HR practices such as results-oriented appraisals or no job guarantees. This suggests that the organization keeps investments in its employer–employee relationship to the bare minimum needed to get the work done. With low investments into the employer–employee relationship via the configuration of the HR system, signals seem consistent when HR management also invests little into the communication of said HR system. A low HR system strength equally corresponds to low investments into the employer–employee relationship, because it requires far less time, effort, and resources to establish compared to a high HR system strength (Ostroff & Bowen, 2016). We therefore argue that signals are consistent when HR management does not communicate about the market-oriented HR system in a distinct, consistent, and consensual manner, but instead leaves such communication diffuse.

In this case, the HR system configuration and the communication of it represent low effort and investment into the HR system, and instead emphasize the focus on productivity inherent in a market-oriented system with internal fit. When efforts and investments in HR are consistently low, employees will feel their perception of

**TABLE 1** Categorization of consistent and inconsistent signals

	Low HRSS	High HRSS
Market-oriented HR system	Consistent signals for: <ul style="list-style-type: none"> <li>• Low service quality attributions</li> <li>• Low employee well-being attributions</li> <li>• High cost reduction attributions</li> <li>• High employee exploitation attributions</li> </ul>	Inconsistent signals
Employee-oriented HR system	Inconsistent signals	Consistent signals for: <ul style="list-style-type: none"> <li>• High service quality attributions</li> <li>• High employee well-being attributions</li> <li>• Low cost reduction attributions</li> <li>• Low employee exploitation attributions</li> </ul>

Abbreviation: HRSS, HR system strength.

management's productivity motive is confirmed, and the signaling effect of the market-oriented HR system will be strengthened.

In contrast, if an HR management chooses a market-oriented HR system, but at the same time invests resources into the communication of it to employees, the HR approach is no longer consistent. Implementing high HR system strength corresponds to high investment in communication and information. Therefore, we believe that employees will perceive discrepant signals between the organization's relatively low investment into its employer–employee relationship via the HR system configuration and the relatively high investment in communicating this. We believe that this discrepancy will lead to confusion and skepticism regarding the purpose of HR, resulting in relatively high variability in employees' attributions. Hence, the signaling effect of the market-oriented HR system is weakened. We therefore expect lower variability in HR attributions when HR managers combine a market-oriented system with low HR system strength compared to high HR system strength. Our argumentation is aligned with Ostroff and Bowen (2016), who proposed that lower strength might be the optimal choice for HR systems that focus on control and competition.

An HR system with internal fit focused on employee orientation signals HR management's intention to focus on commitment in the employment relationship. Consistent with this commitment motive is a communication style that puts effort into the employer–employee relationship via a clear communication to employees—that is high HR system strength (Ostroff & Bowen, 2016). Hence, the communication of the HR system is *consistent* with the information from the configuration of the HR system. As a result, employees' perception of management's commitment motive is confirmed, and the signaling effect of the employee-oriented HR system is strengthened. Conversely,

when HR managers design an employee-oriented HR system but do not adequately communicate it to employees (i.e., low HR system strength), then the information signaled through the communication is not consistent with the information signaled through the configuration of the HR system. Employees' perception of management's commitment motive is thus less clear, leading to higher variability of employees' attribution. We therefore expect lower variability in HR attributions when HR managers combine an employee-oriented system with high (compared to low) HR system strength. This is again in line with Ostroff and Bowen (2016), who propose that high HR system strength might be most important for HR systems that focus on commitment.

**Hypothesis 3.** *HR system strength moderates the relationship between HR system and the variability in employees' HR attributions, such that the variability is lower for consistent signals (i.e., market-oriented HR system combined with low HR system strength, employee-oriented system combined with high HR system strength) than for inconsistent signals.*

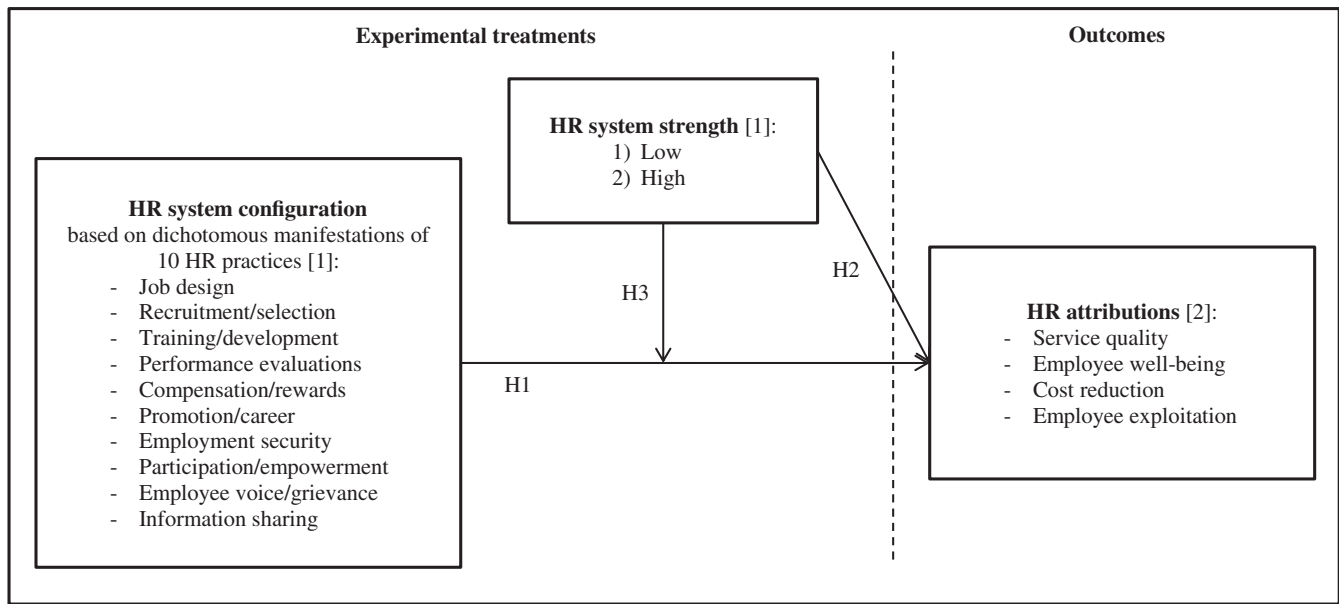
## 6 | METHOD

### 6.1 | Design and sample

The proposed model was tested using an online scenario-based experiment. We registered our experimental design prior to data collection on AsPredicted.org, a pre-registration platform by the Wharton School of the University of Pennsylvania. Our pre-registration document can be accessed at <https://aspredicted.org/th94q.pdf>. The experimental design is shown in Figure 1.

We examined the effects of the configuration and strength of an HR system on HR attributions using a 4 (HR system configurations) × 2 (HR system strength) between-subjects design. Each of the eight conditions was represented through a scenario. All scenarios were drafted around a fictitious office furniture manufacturing company, called FurniFuture. We decided to use a fictitious company to be able to compare multiple different HR systems and to avoid perceptual biases. A general description of FurniFuture (see Appendix A) was followed by the manipulation of the internal fit of the HR system and the manipulation of the strength of the HR system. Based on these scenarios, participants were asked to evaluate their HR attributions as well as to provide information on their demographics and characteristics. Two attention checks and three manipulation checks were incorporated. The manipulation checks tested whether participants grasped (1) the strategic focus of the presented HR system (i.e., “Does the set of HRM activities rather focus on employee productivity (i.e., efficiency and competition) or on employee commitment (i.e., long-term employment relationships)?”), (2) the internal fit of the presented HR system (i.e., “Is the set of HRM activities coherent and consistent (i.e., are the HRM activities oriented towards similar goals versus opposing goals)?”), and (3) the presented strength of the HR





**FIGURE 1** Overview of experimental design. Note: [1] = manipulated; [2] = survey data

system (i.e., “Does the HR management put effort and care into communicating the set of HRM activities to employees?”).

Participants were recruited via Prolific (<https://www.prolific.co/>). We followed recommendations to pre-screen participants to have a minimum of 100 previous submissions and a minimum approval rate of 95 (Cheung et al., 2017; Porter et al., 2019). After ensuring that the manipulations and question items were comprehensible and worked as intended with a pretest of 80 participants, we recruited a sample size of 802 participants for the actual run of the survey. We estimated the completion time of the study to be around 12 min and set the monetary incentive to £1.50.

Of the initial sample of 802 participants, we identified and removed a total of 42 cases where the wrong survey completion code was entered on Prolific (3 cases), at least one of the two attention checks was failed (40 cases) and/or the response pattern indicated careless responding according to the longstring method (maximum longstring  $>6$  for nine consecutive items, three cases). For more information on careless responding, we refer the interested reader to, for example, Meade and Craig (2012) or Goldammer et al. (2020). The final sample size was 760.

Participants' gender was distributed as follows: 380 female (50.0%), 379 male (49.87%), and 1 other. Ages ranged from 19 to 71 with a mean of 39.12. Most participants came from the United Kingdom (448 cases, 58.95%) and the United States of America (149 cases, 19.61%), followed by Portugal (22 cases, 2.89%), Canada (14 cases, 1.84%), Mexico (14 cases, 1.84%), and Spain (14 cases, 1.84%). We also decided to include the criterion on Prolific that participants should be employed at a for-profit organization and asked for type of employment in the questionnaire. Most participants indicated that they were employed (704 cases, 92.63%), while 18 were students, 17 were self-employed, and the rest were either unemployed, unable to work or retired. Around 45% (343 cases) held a Bachelor's degree as the highest education level, while around 18%

(135 cases) had a higher and 37% (282 cases) a lower level of education. Average completion time was 7.3 minutes.

## 6.2 | Measures

### 6.2.1 | HR system configuration

We operationalized the HR system configurations by designing four configurations of HR systems with either internal fit or internal misfit. The four HR systems all consisted of the same 10 HR practices that are prevalent in the literature (for a review, see Lepak et al., 2006). These are job design, recruitment/selection, training/development, performance evaluations, compensation/rewards, promotion/career, employment security, participation/empowerment, employee voice/grievance, and information sharing. We followed Delery and Doty's (1996) typology of HR systems and conceptualized that each HR practice could correspond either to a market-oriented HR system or an employee-oriented HR system (see Appendix B). The market-oriented HR system comprised practices directed toward efficiency and competition, while the employee-oriented HR system focused on creating long-term employment relationships. For example, the HR practice performance appraisal read “The company does not guarantee job security. It is not uncommon that employees are dismissed” in the market-oriented condition and “The company almost guarantees job security. Employees are very seldomly dismissed” in the employee-oriented condition. We strongly relied on Delery and Doty's (1996) and Lepak and Snell's (2002) conceptualizations and formulations when developing our manipulations.

We configured four HR systems with different numbers of employee-oriented and market-oriented HR practices (see Table 2). In System 1, all 10 HR practices were market-oriented. Systems 2 and 3 were HR systems with five of the practices being market-oriented

**TABLE 2** Coding scheme of the four HR systems

	HR system 1	HR system 2	HR system 3	HR system 4
Number of employee-oriented [market-oriented] HR practices	0 [10]	5 [5]	5 [5]	10 [0]
Internal fit	Fit	Misfit	Misfit	Fit
HR practices:				
Job design	M	M	E	E
Recruitment/selection	M	E	M	E
Training/development	M	M	E	E
Performance evaluations	M	E	M	E
Compensation/rewards	M	M	E	E
Promotion/career	M	E	M	E
Employment security	M	M	E	E
Participation/empowerment	M	E	M	E
Employee voice/grievance	M	M	E	E
Information sharing	M	E	M	E

Abbreviations: E, employee-oriented HR practice; M, market-oriented HR practices.

and five being employee-oriented. Finally, System 4 consisted of 10 employee-oriented HR practices. If all HR practices within a system were configured with the same orientation (Systems 1 and 4), the HR system was considered to have internal fit. If the HR practices were configured with alternating orientations (Systems 2 and 3), the HR system was considered to have internal misfit.

## 6.2.2 | HR system strength

Our operationalization of the strength of an HR system closely followed the original conceptualization by Bowen and Ostroff (2004). We included all subdimensions and a description of overall HR system strength in the manipulations. We specifically formulated our manipulations of HR system strength along the meta-features of distinctiveness (visibility, understandability, relevance, legitimacy of authority), consistency (instrumentality, validity, consistent HR messages) and consensus (agreement among HR decision makers) and used Bowen and Ostroff's (2004) wording to develop the manipulations. We used our own operationalization of HR system strength because we did not find an appropriate measure in the previous literature (Ostroff & Bowen, 2016) and because we aimed to measure it as a higher-level characteristic of the HR system and to clearly demarcate the construct from the content of the HR system (Katou et al., 2021) by focusing on the communication aspect of the construct. This is in line with Ostroff and Bowen (2016, p. 200), who stated that "the premise of HR system strength rests on the communication process of HR." We tested the internal validity of our operationalization using an additional validation study, and found that it is a viable way to manipulate the construct (for more information please refer to the Appendix S1).

For precision, we limited the manipulation of HR system strength to two conditions, resulting in a dichotomous variable, where 0 indicated

low strength and 1 indicated high strength (see Appendix C). In the high strength condition, the scenario portrayed an HR putting maximum effort into adequately communicating the HR system to employees in a distinct, consistent, and consensual manner. In the low strength condition, the scenario portrayed an HR management putting no effort into communicating the HR system to employees. The conditions were randomly varied.

## 6.2.3 | HR attributions

HR attributions were measured using the items developed by Nishii et al. (2008). Each item referred to one of the four internal HR attributions: service quality, employee well-being, cost reduction, and employee exploitation. We used the scale to measure an individual's attributions toward the entire HR system. For example, to measure the service quality attribution, we asked participants to rate whether the fictitious organization provided the HR system that it did "in order to help employees deliver quality service." Participants were asked to state their level of agreement with each of the items based on a five-point Likert scale (1 = "strongly disagree," 5 = "strongly agree").

## 6.3 | Analyses

Because we deliberately alternated the orientations for the HR practices in Systems 2 and 3 in a random manner and because both were HR systems with internal misfit (i.e., had the same amount of employee- and market-oriented practices), we grouped them together for the analyses. Thus, we ended up with three treatment groups according to the types of HR systems (market-oriented, misfit, employee-oriented):  $T_{\text{market}}$ ,  $T_{\text{misfit}}$ ,  $T_{\text{employee}}$ .

To test the hypotheses, we computed the variances of each of the four HR attributions for different groups within the sample. We used the classical Levene's test based on the absolute deviations from the mean to compare the variances between groups (Levene, 1960), because the distributions of our four dependent variables were non-normal, and Levene's test is considered a powerful and robust test for non-normal distributions (Gastwirth et al., 2009; Stevens, 2012). Specifically, it is one of the most popular approaches to compare variances under non-normal data. Hypotheses 1a and 1b were tested by computing the variances of each of the four HR attributions for the three HR system configurations and comparing the variances of both groups of internal fit with the group of internal misfit respectively. Specifically, we tested whether the variances in HR attributions were significantly different between  $T_{\text{market}}$  and  $T_{\text{misfit}}$  (H1a) as well as between  $T_{\text{employee}}$  and  $T_{\text{misfit}}$  (H1b). This resulted in two variance tests per HR attribution. For Hypothesis 2, we tested whether there was a significant difference between the variances in the low and high strength conditions for each of the four HR attributions, resulting in one variance test per HR attribution.

Lastly, we tested the hypothesized interactions between HR system configuration and HR system strength (Hypothesis 3) by splitting up the observations in the sample into the low and high strength conditions as well as the three HR system configurations, and we computed the variances for the resulting six conditions per HR attribution. Because we were interested in interaction effects on the variance of our dependent variables (instead of the mean), typical interaction tests were not possible. Thus, we developed an approach that compared the simple slopes across variance values per condition of the moderator. This approach is based on basic definitions of an interaction effect (Aiken et al., 1991) as well as advancements in the statistical literature on variance trends (e.g., slope of linear regression line to investigate increasing or decreasing trend in variances; Gastwirth et al., 2009). We generated the simple slope lines of the variances across HR system configurations for the low and the high strength conditions, respectively, and computed the absolute difference in slopes. To test the significance of the observed absolute difference in slopes, we created bootstrapped samples ( $B = 1000$ ) and computed the absolute difference in slopes for each bootstrapped sample. We then calculated the percentage of bootstrapped test statistics that were greater than the observed test statistic. For example, we found a bootstrapped test statistic more extreme than the observed test statistic in only 10 of 1000 cases ( $p = 0.01$ ), we would consider the observed test statistic to be significant.

All statistical analyses were conducted using the software R for statistical computing (R Core Team, 2021). The *lawstat* package (Hui et al., 2008) contains the respective function to compute Levene's test. The R code is available upon request.

## 7 | RESULTS

Before testing the hypotheses, we ran some preliminary analyses. Three manipulation checks showed that the experimental scenarios worked as intended. Manipulation check 1 revealed that the higher

the number of employee-oriented HR practices in an HR system, the higher individuals perceive its focus to be on commitment rather than productivity ( $b = 1.08, p < 0.001$ ). Manipulation check 2 showed that the two HR systems with internal fit were perceived as more coherent (i.e., the HR practices are oriented toward similar goals versus opposing goals) than the systems with internal misfit ( $t_{\text{market vs. misfit}} = 1.73, p_{\text{market vs. misfit}} = 0.08; t_{\text{employee vs. misfit}} = 10.43, p_{\text{employee vs. misfit}} < 0.001$ ). And manipulation check 3 found that individuals perceived that HR management puts in less effort into communicating the HR systems to employees when HR system strength was low versus high ( $t_{\text{low vs. high}} = -34.41, p < 0.001$ ).

Results from our descriptive statistics (Table 3) and correlations of the main variables (Table 4) indicated, first, that a more employee-oriented HR system related to higher commitment-focused HR attributions and a more market-oriented HR system related to higher control-focused HR attributions. Second, we found a significant positive correlation between service quality and employee well-being ( $r = 0.59$ ) and between cost reduction and employee exploitation attributions ( $r = 0.33$ ) respectively. We also found that the service quality and employee well-being attributions were negatively related to the cost reduction attribution ( $r = -0.13; r = -0.50$ ), but positively related to employee exploitation attribution ( $r = 0.27; r = 0.04$ ). This is interesting as most studies (e.g., Guest et al., 2021; Nishii et al., 2008; Sanders et al., 2019) conceptualized commitment-and control-focused HR attributions as rather opposite. Third, we saw that the variance of the employee exploitation attributions was lower than the one of the well-being attributions. Similarly, Alfes et al. (2020) reported lower a variance in performance attributions compared to well-being attributions.

In Hypotheses 1a and 1b, we stated that HR systems with internal fit resulted in a lower variability in employees' HR attributions than HR systems with internal misfit. The variances of  $T_{\text{market}}$  and  $T_{\text{employee}}$  were lower than the variances of  $T_{\text{misfit}}$  for seven out of the eight comparisons (Table 5). Yet, not all of these differences were significant. We found that  $T_{\text{market}}$  led to significantly lower variances in how individuals form well-being attribution ( $W = 16.19, p < 0.001$ ) compared to  $T_{\text{misfit}}$ . We also found a significant decrease in variance in the well-being attribution in  $T_{\text{employee}}$  compared to  $T_{\text{misfit}}$  ( $W = 9.00, p = 0.003$ ). Thus, Hypotheses 1a and 1b were partially supported.

For Hypothesis 2, we were interested in whether a high strength of an HR system resulted in lower variability in HR attributions compared to a low HR system strength. We found partial support for Hypothesis 2, as there was a significant decrease in variance for higher levels of HR system strength for the service quality ( $W = 16.54, p < 0.001$ ) and employee exploitation attributions ( $W = 13.28, p < 0.001$ ), but not for the well-being and cost reduction attributions. The results are shown in Table 6.

Hypothesis 3 suggested an interaction effect between the configuration and the strength of an HR system on the variability in HR attributions among employees. We found that the trend in variances across HR system configurations differed significantly between the low versus the high strength condition for the service quality ( $p = 0.027$ ) and the employee well-being ( $p < 0.001$ ) attribution. We



**TABLE 3** Descriptive statistics for HR systems

Number of employee-oriented [market-oriented] HR practices	Internal fit	N	0 [10]		5 [5] <sup>a</sup>		5 [5] <sup>b</sup>		10 [0]		
			Fit	Var	Misfit	Var	Misfit	Var	Fit	Var	
			190		191		188		191		
				M	Var	M	Var	M	Var	M	Var
HR attributions:											
	Service quality		1.36	2.71	1.26	3.15	1.25	3.27	1.33	3.61	1.18
	Employee well-being		1.87	1.78	0.93	2.46	1.22	3.10	1.46	3.99	1.24
	Cost reduction		1.50	4.35	1.00	4.04	1.17	3.56	1.16	2.65	1.03
	Employee exploitation		1.03	3.99	1.22	3.97	0.97	3.89	0.99	3.75	0.92

Abbreviations: M, mean; N, group sample size; Var, variance.

<sup>a</sup>Even practices are employee-oriented.

<sup>b</sup>Uneven practices are employee-oriented.

**TABLE 4** Correlations

	M	Var	1	2	3	4	5	6	
1 Number of employee-oriented HR practices			—						
2 HRSS			−0.03	—					
HR attributions:									
3 Service quality	3.18	1.36	0.27***	0.39***	—				
4 Employee well-being	2.83	1.88	0.57***	0.28***	0.59***	—			
5 Cost reduction	3.64	1.51	−0.49***	−0.01	−0.13***	−0.50***	—		
6 Employee exploitation	3.89	1.05	−0.08*	0.20***	0.27***	0.04	0.33***	—	

Note: N = 760.

Abbreviations: HRSS, HR system strength; M, mean; Var, variance.

\*\*\* $p < 0.001$ .

\* $p < 0.05$  (two-tailed test).

**TABLE 5** Tests for differences in variances according to internal fit of HR system

Number of employee-oriented [market-oriented] HR practices	Treatment group	Internal fit	N	0 [10]	5 [5]	10 [0]	T <sub>market</sub> versus T <sub>misfit</sub>		T <sub>employee</sub> versus T <sub>misfit</sub>	
				T <sub>market</sub>	T <sub>misfit</sub>	T <sub>employee</sub>	W statistic <sup>a</sup>	p-value <sup>a</sup>	W statistic <sup>a</sup>	p-value <sup>a</sup>
				Fit	Misfit	Fit				
				190	379	191				
				Var	Var	Var				
HR attributions:										
	Service quality			1.26	1.29	1.18	0.03	0.864	0.65	0.420
	Employee well-being			0.93	1.44	1.24	16.19	0.000	9.00	0.003
	Cost reduction			1.00	1.22	1.03	2.75	0.098	0.73	0.393
	Employee exploitation			1.22	0.98	0.92	2.60	0.107	0.74	0.391

Abbreviations: N, group sample size; Var, variance.

<sup>a</sup>Two-sided classical Levene's test based on the absolute deviations from the mean.

did not find a significant difference in trends for the cost reduction ( $p = 0.168$ ) and the employee exploitation ( $p = 0.553$ ) attributions. To examine the directions of the interaction effects, we drew upon the graphical visualizations to further analyze the type of interaction. We expected that the combination of consistent signals (i.e., market-oriented HR system and a low HR system strength, employee-

oriented HR system and a high HR system strength) strengthens the respective signaling effects and leads to lower variability than the combination of inconsistent signals. We found that this was the case for the service quality and the employee well-being attributions. However, the variances of the cost reduction and employee exploitation attributions were persistently lower when HR system strength was

**TABLE 6** Tests for differences in variances according to strength of HR system

	Low HRSS (N = 379)		High HRSS (N = 381)		W statistic <sup>a</sup>	p-value <sup>a</sup>
	M	Var	M	Var		
HR attributions:						
Service quality	2.73	1.30	3.64	1.00	12.63	0.000
Employee well-being	2.45	1.61	3.21	1.85	3.24	0.072
Cost reduction	3.66	1.52	3.64	1.47	0.04	0.844
Employee exploitation	3.70	1.25	4.10	0.74	33.48	0.000

Abbreviations: HRSS, HR system strength; M, mean; N, group sample size; Var, variance.

<sup>a</sup>Two-sided classical Levene's test based on the absolute deviations from the mean.

**TABLE 7** Tests for interaction effects

	Low HRSS (N = 379)	High HRSS (N = 381)	Absolute difference in slopes	p-value <sup>a</sup>
	b	b		
HR attributions:				
Service quality	0.01	-0.06	0.07	0.027
Employee well-being	0.12	-0.09	0.20	0.000
Cost reduction	-0.02	0.02	0.05	0.168
Employee exploitation	-0.04	-0.02	0.02	0.553

Abbreviations: b, slope of simple slope; HRSS, HR system strength; N, group sample size.

<sup>a</sup>Derived through bootstrapping with B = 1000.

high, irrespective of the HR system configuration. We elaborate on this unexpected result in the discussion section. Overall, Hypothesis 3 was supported for commitment-focused HR attributions (i.e., service quality and employee well-being), but not supported for control-focused HR attributions (i.e., cost reduction and employee exploitation). Results can be found in Table 7 and the interaction effects are plotted in Figure 2.

## 7.1 | Robustness checks

We carried out additional tests to assess the robustness of our results. We did not find changes in the demonstrated effects when removing respondents who were of non-English nationalities or not currently employed. Results of these additional tests largely confirmed our initial findings and are available from the first author upon request.

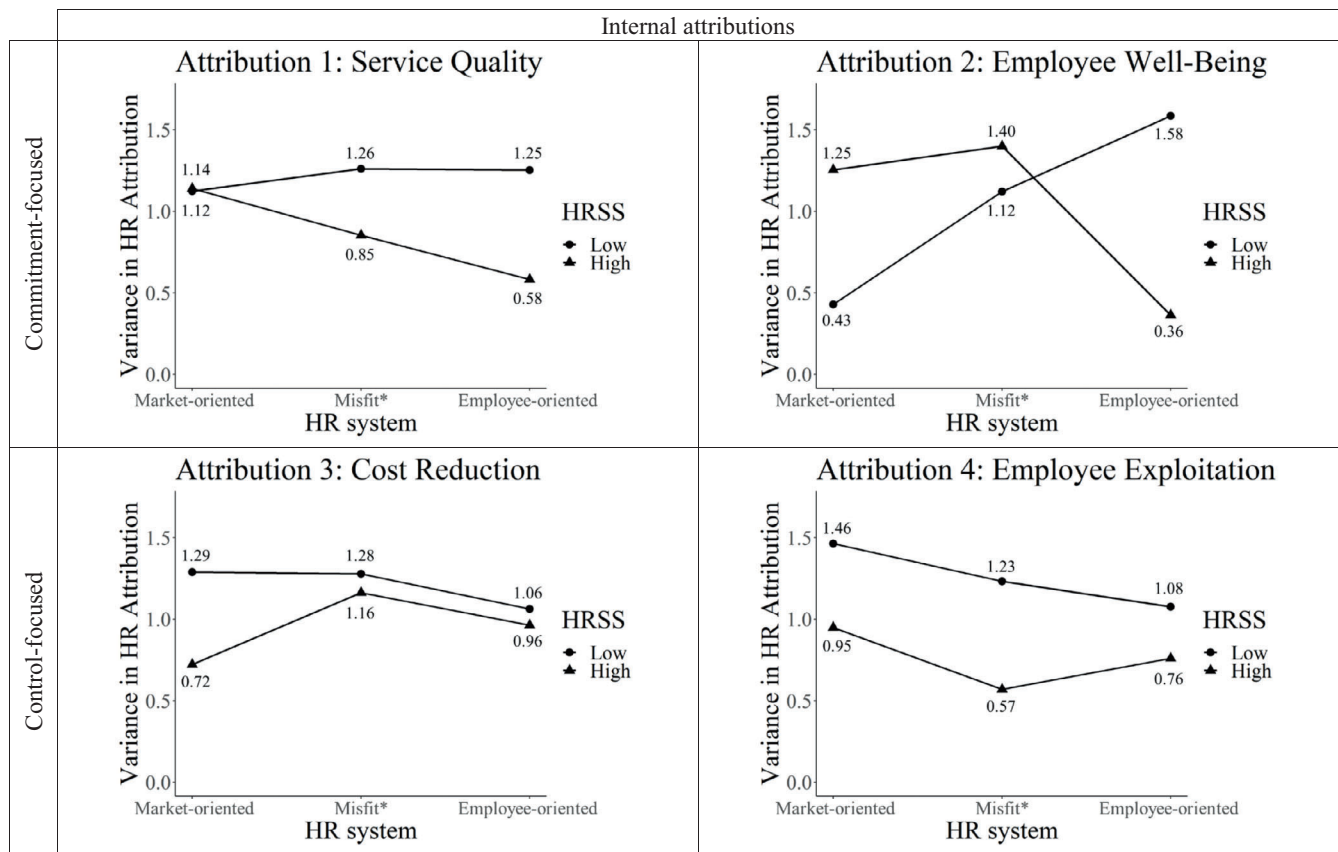
Because there are no established tests for finding interaction effects on variances, we also used alternative approaches to test Hypothesis 3. We followed a similar logic as described above and generated the simple slope lines of the variances across HR system configurations for the low and high strength conditions, respectively. As a first alternative, we tested whether the slopes differed significantly using the difference in slope test by Cohen et al. (2003). A test statistic  $t = (b_1 - b_2)/SE_{pooled}$  was computed and used to determine whether the difference in slopes was significant. As a second alternative, instead of computing the absolute difference in slopes, we computed the angle between the lines and used bootstrapping to determine whether the observed angle was significantly more

extreme than chance. Both alternatives produced the same results as described above and are available upon request.

## 8 | DISCUSSION

Our results demonstrate that the same HR system can be perceived quite differently by employees but that certain HR signals unify these perceptions. In addition to the direct signaling effects of the configuration and strength of an HR system, our main findings point to the importance of the combined effects of HR signals. Specifically, we show that the internal fit of an HR system is particularly relevant for the variability in the well-being attributions but less so for other attributions. Employees seem to consider the internal fit of an HR system a strong signal to decide whether an organization aims to maximize their well-being, resulting in lower variability of the well-being attribution. When it comes to interpreting other management intentions, the internal fit of an HR system seems to be less relevant in reducing the variability in HR attributions. Our results also show that, as a direct effect, HR system strength significantly impacts service quality attributions and employee exploitation attributions. We did not find a direct effect of HR system strength on employee well-being attributions or cost reduction attributions.

Regarding the combination of the configuration and strength of an HR system, we found that the combination of an employee-oriented HR system and high system strength lead to uniform and *high* commitment-focused attributions. The combination of a market-oriented HR system and low system strength lead to uniform and *low* commitment-focused attributions. Meanwhile, combining a market



**FIGURE 2** Plots of interaction effects for four HR attributions. Note: \*These values are based on two HR systems with internal misfit (Tmisfit)

orientation with a high HR system strength leads to uniform and *medium* control-focused attributions, whereas the combination of an employee-orientation with high HR system strength leads to uniform and *low* control-focused attributions.

## 8.1 | Theoretical and methodological contributions

Our findings contribute to the literature in four ways. First, we add to the sparse empirical evidence on the antecedents to HR attributions. Studies that have investigated how HR systems relate to employees' HR attributions have shown that the number of high-performance work practices, as reported by line managers (Guest et al., 2021; Van De Voorde & Beijer, 2015) or as perceived by employees (Alfes et al., 2020; Sanders et al., 2019), have an influence on employees' HR attributions. We advance this idea by integrating three perspectives that strategic HR scholars have taken to investigate employees' perceptions of HR: the content, process and attributions perspectives (Ostroff & Bowen, 2016; Wang et al., 2020). Specifically, we build on Guest et al.'s (2021) work by (1) proposing HR systems with different strategic orientations and strengths and (2) separating the signaling effects of the features of the content (i.e., HR system configuration, internal fit) from features of the process of communicating an HR system (i.e., strength of an HR system).

Second, in our study we disentangled the process through which strategic intentions can be transferred to employees, thereby

advancing research on HR systems. Our findings highlight the fundamental proposition that a strong HR system leads to uniform perceptions among employees about the HR intentions, as we demonstrated the effect of HR system strength on the variability of employee perceptions. It is important to note that we provided an operationalization of HR system strength that integrated the ideas of Bowen and Ostroff's (2004) original conceptualization as a higher-level characteristic of the HR system through measuring the meta-features of distinctiveness, consistency, and consensus of the entire system. We therefore complement existing operationalizations of HR system strength measuring employees' shared perceptions about HR system strength (which Ostroff and Bowen propose to label "perceptions of HRM system strength", p. 198). Hence, our approach closes an important gap in HR system strength research, as highlighted in a recent paper by Sanders et al. (2021).

Third, research on HR attributions has commonly adopted a perspective in which mean effects of individuals' HR attributions were analyzed (Guest et al., 2021; Hewett et al., 2018). Our study advances the literature on HR attributions by demonstrating that signals of an HR system can lead to meaningful and quantifiable variability in HR attributions among employees. As indicated by Nishii et al. (2008), "implicitly ignoring this variability [...] may be hurting our ability to understand the process through which HR practices become linked to performance" (p. 33f). We explicitly hypothesized variance differences and found that certain combinations of configuration and strength of HR systems direct employees toward attributing

management's intentions more uniformly. We shift the focus of HR attributions from an individual's perception of a certain HR system toward a collective-level concept. Our study advances research by showing that organizations that implement certain features of an HR system can create strong situations, leading to the development of similar causal maps and uniform attributions about HR among the organization's employees.

Fourth, we found that HR signals have distinct effects on commitment- versus control-focused HR attributions. This distinction is aligned with how HR scholars have traditionally understood the effects of HR practices in organizations (e.g., Boxall & Purcell, 2011; Vandenberg et al., 1999; Wright & Essman, 2021): HR systems affect organizational outcomes by (1) impacting employees' performance indirectly through their perceptions of the psychological contract, their attitudes toward the organization, and their involvement (*commitment route*) and by (2) directly affecting employees' performance (*productivity route*).

Referring to the commitment route, we found more uniform commitment-focused HR attributions (i.e., service quality, employee well-being) when HR signals were consistent. Shared understandings of commitment motives require *consistent signals* of the content and the process of the HR systems. It seems that employees need to see consistency in HR signals when forming their commitment motives, so organizations need to align their efforts and signal commitment attributions via clear HR configurations and a strong HR system.

With reference to the productivity route, we found more uniform control-focused HR attributions (i.e., cost reduction, employee exploitation) when HR system strength was high, irrespective of the HR system configuration. One potential explanation for this finding is that individuals might have preconceived, a-priori overlapping causal maps about the productivity intentions of an organization. The ultimate goal of an organization is to be productive and employee performance is an implicit or explicit goal of most HR practices (Hewett, 2021). Moreover, research has demonstrated over the past decades that line managers have been given more responsibility in the management of their employees, in that they are increasingly responsible for the implementation of HR practices (i.e., HR devolution; Bos-Nehles et al., 2013). However, research has also shown that line managers often revert to the minimum of HR management because of a lack of desire or ability, conflicting priorities or time pressures (López-Cotarelo, 2018). As a result, over time, employees might have developed preconceived ideas that HRM is a control mechanism intended to enforce harder work and increase employee productivity. Hence, it seems fair to assume that individuals expect a certain degree of productivity motives from HRM, irrespective of the actual HR content (see also higher mean values in Table 4).

Considering their preconceived ideas and suppositions about productivity motives, individuals might simplify information processing of control-focused HR attributions. As a result, the importance of the available HR signals is reduced. This conclusion is supported by Li (2021) who underlined the importance of the credibility of the HR management as a heuristic when employees interpret HR messages. In summary, as long as the HR management is credible (which is a part of high HR system strength), its productivity motives are unambiguous

**TABLE 8** Two routes of the HR process

	<b>COMMITMENT ROUTE for commitment-focused HR attributions (service quality, employee well- being)</b>	<b>PRODUCTIVITY ROUTE for control-focused HR attributions (cost reduction, employee exploitation)</b>
Market-oriented HR system	Low HRSS results in uniformly low HR attributions	High HRSS results in uniformly high HR attributions
Employee-oriented HR system	High HRSS results in uniformly high HR attributions	High HRSS results in uniformly low HR attributions

Abbreviation: HRSS, HR system strength.

and employees will interpret its intentions in a similar manner. However, when HR management is not credible (and does not put effort in the communication), employees are faced with a weak situation and cognitive dissonance, leading to idiosyncratic interpretations and variability in control-focused HR attributions.

The finding that there are distinct processes for commitment-versus control-focused HR attributions enables scholars to get a more detailed understanding of how employees make sense of HR management. Our proposed two-route model for uniform HR attributions can be found in Table 8.

In addition to the theoretical advances, this study makes a methodological contribution as it allows for credible causal statements about the link between HR systems and employees' HR attributions. Studies in organizational and management research mostly utilize observational data to claim causal effects (Eden, 2017; Podsakoff & Podsakoff, 2019). Testing causality, however, comes with fundamental complexities that require the use of assumptions and procedural or statistical remedies to reduce potential biases. Scholars have called attention to these complexities and caution research to adequately address them (e.g., Aguinis et al., 2017; Antonakis et al., 2010; Holland et al., 2017; Saylor & Trafimow, 2020). Experiments with random assignments are considered the strongest identification strategy or "gold standard" (Podsakoff & Podsakoff, 2019; Rubin, 2008). Especially in research contexts that seek to map complex psychological processes, like the formation of attributions, causal relationships are difficult to establish through observations. By establishing an extensive randomized experiment, we provide a credible identification strategy for testing the proposed causal relationship. We thereby demonstrate the advantages of experiments for research on strategic HR management and showcase a comprehensive procedure for testing our hypothesized relationships.

## 8.2 | Practical implications

Employees use HR-related information to find out what management expects from them in order to reach organizational goals. Our study shows that the same HR system can lead to different perceptions of

management's motives among employees. A difference in how employees perceive an HR system can potentially have unwanted consequences for the organization. As individuals base their attitudes and behaviors on their perceptions, varying perceptions will lead to varying responses, such that employees will likely not respond to an HR system in the way that was initially intended by HR management. In order to unify these perceptions, HR management needs to send clear signals about its motives in order to convey the desired attitudes and behaviors.

We recommend that HR departments and line managers be aware of their role as signalers and actively establish signals that create uniform understandings among employees. To create a uniform understanding of a commitment motive among employees, HR managers should be sure to consistently reflect this motive in the design of the HR system and the communication of this system to employees. This can be done by implementing an HR system that focuses on building long-term employment relationships (such as, e.g., internal career opportunities and participation) and putting effort into clearly communicating about it. If HR managers instead aim to create a uniform understanding of a productivity motive among employees, it is important to be credible in the communication of this productivity motive. In this case, we suggest implementing an HR system that is focused on efficiency and competition (such as, e.g., results-oriented appraisals and profit sharing) and concentrating on adequately communicating the intention behind the system to employees to remain credible. If HR managers are inconsistent in their efforts or act in a non-credible way, they run the risk of confusion about their intentions among employees.

Awareness about the signaling role and the importance of designing the HR process in a way that is indicative of the desired attitudes and behaviors should be included in management trainings. In these trainings, HR managers could learn that employees attribute motives to HR activities and behave in line with these attributed motives, but that that employees often differ in the attributed motives to the same HR activities. Moreover, HR managers could be coached on how to design HR activities to signal their motives consistently through their actions and how to actively build a credible HR management. If HR managers understand how to leverage this knowledge, the role and potential of HR management can be markedly enhanced within the organization.

### 8.3 | Limitations

One limitation of our study is that, while the experimental design was carefully crafted such that our hypothetical scenarios resemble realistic workplace situations, it remains unclear to what degree our simple and static stimuli predict true-to-life processes (i.e., ecological validity). Because we are interested in individuals' perceptions with regard to certain HR systems, it is crucial that the participants of our experiment understand the presented HR system. The results of three manipulation checks demonstrated that participants were conscious of the features of the presented HR systems (e.g., focus, coherence, effort of communication). Furthermore, the descriptive statistics indicated that, on average, participants were able to attribute the intended strategic orientation from the HR system configuration. Overall, participants

seemed to understand the scenarios with which they were presented before forming their perceptions so that we were able to capture some of the important cognitive effects that are relevant in real-life situations. Nevertheless, we suggest that future research should complement our results with additional findings from field studies. Field studies are especially useful to establish the link between perceptual variability among employees and different performance outcomes.

Another limitation of our study relates to our source for data collection. Despite the increasing popularity of online panels in social sciences, some scholars have raised concerns about the appropriateness of data collected through online panels on platforms like Prolific (e.g., Paolacci & Chandler, 2014). Concerns include selection bias, lack of sample representativeness, repeated participation, and subject inattentiveness. However, multiple scholars have tested potential data quality issues and concluded that, with accurate precautionary steps in participant screening and data cleaning, online panel data are suitable and promising data sources (e.g., Gosling et al., 2004; Porter et al., 2019). In that regard, research suggests that Prolific has several advantages over alternative online platforms (for an overview, see Peer et al., 2017). Specifically, Peer et al. (2017) found that participants recruited via Prolific are significantly less dishonest (i.e., lower cheating rate), more naïve (i.e., less familiar with tasks, less time spent on platform), and more diverse (i.e., geographical location, ethnicity) than participants recruited via alternative online platforms.

In conducting our experiment, we ensured that our research question allowed for online panel data and followed recommendations from Cheung et al. (2017) and Porter et al. (2019) to increase data quality. For example, we set system-based qualifications to pre-screen participants (i.e., minimum of 100 previous submissions of 100, minimum approval rate of 95), paid fair monetary incentives, provided transparent reasons when participants did not get paid (i.e., failing two attention checks), avoided common paradigms and measures that could potentially result in practice effects, used multiple in-survey instructions to ensure participants' attentiveness (e.g., "I confirm that I know that I will only get paid if I answer all questions thoroughly"), and included two attention checks and three manipulations checks. Hence, we believe that we have used data of appropriate quality to test our theoretical framework.

Furthermore, we provided suggestions of how to operationalize the configuration and strength of HR systems and how to demarcate the concepts, and we acknowledge that other operationalizations are possible. First, we limited our analyses to some examples of configurations of HR systems. When developing our vignettes and manipulations, we ensured that we were aligned with previous operationalizations of market- and employee-oriented systems. For example, we strongly relied on Delery and Doty's (1996) and Lepak and Snell's (2002) formulations for our manipulation of the market-oriented HR system. Second, our operationalization of HR system strength included the HR department as the key actor in the process of communication. Notwithstanding, we recognize that there might be other organizational actors of the HR process, particularly line managers and top management (Bos-Nehles et al., 2021), who also play a role in determining the strength of the HR system. Likewise, a more detailed version of a manipulation check of HR system strength via the three meta-features of distinctiveness, consistency, and



consensus could be a possible extension of our experiment. Third, we realize that a perfect demarcation between HR content and HR process might be very difficult to achieve (in an experiment as well as in reality), although we put great attention into achieving a demarcation in the operationalizations.

## 8.4 | Future research

Our study lays an important foundation for disentangling the process by which HR systems are linked to employees' HR attributions, and interesting questions for future research arise from our study. First, our research model can be used as a basis to investigate additional factors that determine the formation of uniform HR attributions among employees. We focused on the organizational factors of configuration and strength of an HR system. What we have not examined but consider promising for further investigation, are the factors that influence the formation of HR attributions when HR signals are weak. For example, it could be interesting to investigate the role of communication for ambiguous HR systems with internal misfit that do not have a single clear strategic focus. Further analyses should consider whether intense communication leads to clarification of complex, potentially conflicting strategic goals or whether it leads to even more confusion and higher variability. Also, in cases of weak HR signals, individual differences between employees will substantively influence the variability in HR attributions. Individuals might differ, for example, in their motivation for information-seeking or access to sources of information other than organizational ones, such as colleagues' opinions (Fan et al., 2020). It might even be the case that weak signals, like inconsistent and ambiguous communication, cause negative perceptions among employees regarding the effectiveness of the HR function and the role of HR in an organization (Ostroff & Bowen, 2016), which in turn might influence their attributions. Research addressing these important questions will be welcomed.

Second, our findings can also serve as a basis to investigate how employees evaluate single, new signals against the signals of the HR system as a whole. As we have shown with this study, employees use the HR system to form opinions about what the organization intends with its actions. As new HR signals are sent, such as new home office regulations or a women's quota, employees will perceive these new HR signals within the environment of the signals sent by the entire HR system (Guest et al., 2021). Depending on the overall interpretation of organizational intentions, employees might evaluate certain new policies or practices more or less positively. Thus, using our model to find additional antecedents to the variability in employees' HR attributions seems a promising avenue for future research.

Third, considering that multiple types of HR attributions coexist even within the same individual, as indicated by our descriptive analyses as well as prior research (Alfes et al., 2020), it is crucial to understand how employees combine and weigh commitment versus productivity motives. It could be that one route dominates the other, depending on the organizational context. Indeed, it is plausible that employees have a uniform understanding of HR management's

productivity intentions but vary in their perception of whether HR management additionally focuses on commitment. We encourage scholars to investigate how the uniform understanding of one motive and ambiguity regarding another motive affect employees' attitudes and behaviors on an individual level (e.g., by inducing stress) and on a collective level (e.g., with respect to industry or organizational culture). Research on the interaction of the commitment and productivity routes makes it possible to better understand how employees perceive, interpret, and respond to HR management.

Fourth, our findings revealed counterintuitive results for the exploitation attribution, as it was positively correlated with service quality and employee well-being attributions, and we believe that future research should bring more clarity to the measurement and conceptualization of the exploitation attribution. In terms of measurement, we agree with other scholars (Hewett, 2021; Hewett et al., 2018; Hewett et al., 2019), arguing that the measurement of the exploitation attribution as proposed by Nishii et al. (2008) and as used in this study ("in order to get the most work out of employees") leaves room to be interpreted as malevolent or as neutral in the sense of performance enhancement intentions. These two potential interpretations of the exploitation attribution also raise questions regarding the conceptual meaning of the exploitation attribution. Whereas some scholars have inferred negative connotations of the exploitation attribution (Nishii et al., 2008; Tandung, 2016), others (Alfes et al., 2020; Van De Voorde & Beijer, 2015) have understood the exploitation attribution more from a performance-enhancing perspective. We join in these discussions to advocate for the need for more clarity in the measurement and conceptualization of the exploitation attribution in future research.

Finally, we advocate for future research on the antecedents of external HR attributions. We exclusively focused on internal HR attributions like most studies on the antecedents of HR attributions do (Hewett et al., 2018), because of our interest in factors that are controllable by the organization. We expect the antecedents of external attributions to be dependent on the kind of external attribution (e.g., union compliance, legal compliance, desire to keep up with competitors, etc.) as well as the context. Some external motives might be clear and understood similarly among employees, such as the compliance with legal regulations, while other motives are more ambiguous, such as the desire to keep up with competitors. Research which sheds light on these questions will be welcomed.

## ACKNOWLEDGMENT

Open Access funding enabled and organized by Projekt DEAL.

## DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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## SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

**How to cite this article:** Meier-Barthold, M., Biemann, T., & Alfes, K. (2022). Strong signals in HR management: How the configuration and strength of an HR system explain the variability in HR attributions. *Human Resource Management*, 1–18. <https://doi.org/10.1002/hrm.22146>

## APPENDIX A: GENERAL SCENARIO DESCRIPTION

Imagine that you work for FurniFuture, a medium-sized office furniture manufacturer. The company specializes in individualized workspace solutions with a focus on functionality. It employs around

800 people in four different locations and had an annual revenue of around 300 million USD in 2020.

The human resource (HR) department at FurniFuture decided to establish certain human resource management (HRM) activities in order to manage work and people within the organization. Depending

on the job, the specific set of HRM activities varies for each employee.

## APPENDIX B: MANIPULATIONS OF THE HR PRACTICES WITHIN AN HR SYSTEM

HR practice	Market-orientation	Employee-orientation
Job design	The company predefines which tasks need to be performed and how they need to be carried out. For example, employees do not have the autonomy to make changes in the way they perform their jobs.	The company does not specifically predefine which tasks need to be performed and how they need to be carried out. For example, employees have the autonomy to make changes in the way they perform their jobs.
Recruitment/selection	The company focuses on selecting the best possible candidate for the job for the lowest wage level. For example, it involves a comprehensive process of screening many job candidates to find the best fit for the job.	The company focuses on selecting candidates based on their abilities to contribute to strategic objectives and their potential to learn. For example, it involves selecting the best all around candidate, regardless of the specific job.
Training/development	The company does not provide a lot of training and development opportunities. Formal training programs are rare. You are expected to focus on improving your current job performance. For example, the company pays only for those trainings that are absolutely necessary for you to perform your current job and that increase your productivity.	The company provides extensive training and development opportunities for you to advance your skills and knowledge. You are expected to participate in various training programs on a regular basis. For example, the company offers a great variety of trainings to advance one's skills (e.g., presentation trainings). Your supervisor supports your participation in these training sessions every quarter.
Performance evaluations	Performance appraisals for employees are based on objective, quantifiable results. They are meant to assess the quantity of your output and measure your productivity. When rating your performance, for example, your supervisor considers whether you met, missed or exceeded agreed-upon target figures such as your productivity level.	Performance appraisals for employees are based on input from multiple sources (peers, subordinates, supervisors, etc.). They are meant to assess your learning and personal advancement. For example, you have voluntarily assisted one of your colleagues with their work. In your last performance rating, your supervisor took this behavior into account.
Compensation/rewards	To compensate its employees, the company uses a basic salary that is based on the market average. The salary is designed to ensure labor costs are managed effectively. For example, if incentives are used, they focus on short-term productivity targets.	To compensate its employees, the company uses a competitive, high salary. The salary is designed to focus on an employee's long-term performance. For example, the company uses stock options and other forms of long-term compensation.
Promotion/career	There is very little use of internal career ladders within the company. The company emphasizes open competition and new recruits at all levels. For example, the company is more likely to acquire individuals who already possess the needed skills.	There is extensive use of well-defined career ladders within the company. The company emphasizes promotion from within. For example, there are flexible opportunities for you to advance your career within the company.
Employment security	The company does not guarantee job security. It is not uncommon that employees are dismissed. For example, to counter situations in which the company is facing economic problems, it is possible that employees will be dismissed.	The company almost guarantees job security. Employees are very seldomly dismissed. For example, even if the company was facing economic problems, the company's employment protection legislation prevents employees from dismissal.
Participation/empowerment	The company does not offer a lot of involvement possibilities for you to take part in decision-making. Management makes decisions "behind closed doors." It barely takes employees' feedback into account. For example, your supervisor usually makes important decisions herself.	The company offers a lot of involvement possibilities for you to take part in decision-making. Management takes employees' feedback into account when making decisions. For example, your supervisor asks for your advice when making important decisions.
Employee voice/grievance	The company does not encourage you to voice your opinion. For example, there are no formal grievance procedures in place.	The company encourages you to voice your opinion. For example, there are many formal grievance procedures in place where you can complain about decisions affecting your work.
Information sharing	Management does not ensure a constant information flow to employees. For example, your supervisor shares little information about current opportunities and challenges with you.	Management ensures a constant information flow to employees. For example, your supervisor shares a lot of information about current opportunities and challenges with you.

## APPENDIX C: MANIPULATIONS OF THE STRENGTH OF AN HR SYSTEM

Low HR system strength	High HR system strength
<p>Regardless of the specific set of HRM activities, the HR department of FurniFuture does not put any effort in adequately conveying and communicating it to the employees.</p>	<p>Regardless of the specific set of HRM activities, the HR department of FurniFuture puts considerable effort in adequately conveying and communicating it to the employees.</p>
<p>Overall, the HR department does not draw much attention to the set of HRM activities and gives very sparse information on it. As a result, you—as an employee—do not have a clear understanding of which HRM activities are implemented and what each HRM activity involves. The HR department does not communicate whether the set of HRM activities is consistent within itself and across time. On top of that, you are not informed about what the HRM activities are meant to achieve and which consequences they have in reality. Therefore, you do not know whether the set of HRM activities is relevant to your individual as well as organizational goals. Even HR decision-makers, like HR managers or line managers, disagree on the purpose of the set of HRM activities and present a vague and non-uniform picture of it.</p>	<p>Overall, the HR department draws much attention to the set of HRM activities and gives lots of information on it. As a result, you—as an employee—have a clear understanding of which HRM activities are implemented and what each HRM activity involves. The HR department communicates that the set of HRM activities is consistent within itself and across time. On top of that, you are informed about what the HRM activities are meant to achieve and which consequences they have in reality. Therefore, you know that the set of HRM activities is relevant to your individual as well as organizational goals. Even HR decision-makers, like HR managers or line managers, agree on the purpose of the set of HRM activities and present a precise and uniform picture of it.</p>
<p>In general, the HR department of FurniFuture has a rather low status and credibility within the organization such that top management does not support it.</p>	<p>In general, the HR department of FurniFuture has a high status and credibility within the organization such that top management supports it.</p>