

Kerstin Alfes, Amanda Shantz, Catherine Truss and [Emma Soane](#)

The link between perceived human resource management practices, engagement and employee behaviour: a moderated mediation model

**Article (Accepted version)
(Refereed)**

Original citation:

Alfes, Kerstin, Shantz, Amanda, Truss, Catherine and Soane, Emma (2013) *The link between perceived human resource management practices, engagement and employee behaviour: a moderated mediation model*. [The International Journal of Human Resource Management](#), 24 (2). pp. 330-351. ISSN 0958-5192
DOI: [10.1080/09585192.2012.679950](https://doi.org/10.1080/09585192.2012.679950)

© 2013 Taylor & Francis

This version available at: <http://eprints.lse.ac.uk/42345/>
Available in LSE Research Online: September 2015

LSE has developed LSE Research Online so that users may access research output of the School. Copyright © and Moral Rights for the papers on this site are retained by the individual authors and/or other copyright owners. Users may download and/or print one copy of any article(s) in LSE Research Online to facilitate their private study or for non-commercial research. You may not engage in further distribution of the material or use it for any profit-making activities or any commercial gain. You may freely distribute the URL (<http://eprints.lse.ac.uk>) of the LSE Research Online website.

This document is the author's final accepted version of the journal article. There may be differences between this version and the published version. You are advised to consult the publisher's version if you wish to cite from it.

**The Link between Perceived Human Resource Management Practices, Engagement and
Employee Behaviour.**

A Moderated Mediation Model

Kerstin Alfes
Department of Leadership, HRM and Organisation, Kingston University
Kingston Hill, Kingston upon Thames KT2 7LB
Tel: +44 (0)20 8417 5282
Fax: +44 (0)20 8547 7026
Email: k.alfes@kingston.ac.uk
(corresponding author)

Amanda D. Shantz
Department of Leadership, HRM and Organisation, Kingston University
Kingston Hill, Kingston upon Thames KT2 7LB
Tel: +44 (0)20 8417 5585
Fax: +44 (0)20 8547 7026
Email: amandashantz100@hotmail.com

Catherine Truss
Kent Business School at Medway
The Medway Building, Chatham Maritime
Kent ME4 4AG
Tel: +44 (0)1634 888977
Email: k.truss@kent.ac.uk

Emma C. Soane
Department of Management, London School of Economics and Political Science
Houghton Street, London, WC2A 2AE
Tel: +44 (0)20 7405 7686
Fax: +44 (0)20 7955 7424
Email: e.c.soane@lse.ac.uk

The Link between Perceived Human Resource Management Practices, Engagement and Employee Behaviour.

A Moderated Mediation Model

Abstract

This study contributes to our understanding of the mediating and moderating processes through which human resource management practices are linked with behavioural outcomes. We developed and tested a moderated mediation model linking perceived human resource management practices to organisational citizenship behaviour and turnover intentions. Drawing on social exchange theory, our model posits that the effect of perceived human resource management practices on both outcome variables is mediated by levels of employee engagement, while the relationship between employee engagement and both outcome variables is moderated by perceived organisational support and leader-member exchange. Overall, data from 297 employees in a service sector organisation in the UK support this model. This suggests that the enactment of positive behavioural outcomes, as a consequence of engagement, largely depends on the wider organisational climate and employees' relationship with their line manager. Implications for practice and directions for future research are discussed.

Keywords: employee engagement; leader-member exchange; organisational citizenship behaviour; perceived HRM practices; perceived organisational support; turnover intentions

Introduction

Despite considerable advances in recent years in our understanding of how human resource management (HRM) might be linked with favourable individual and organisational level outcomes, scholars have highlighted four areas in particular where more research is needed (Wright and Boswell, 2002, Gerhart, 2005, Paauwe, 2009).

Firstly, it has been suggested that firm-level outcome variables may in fact be too distal to assess the impact of micro-level HRM interventions. Scholars have therefore argued that it is important to consider the effects of HRM interventions on employee-level outcome variables, which are more proximal indicators and may be considered an intermediary outcome in the HRM-performance relationship (Guest, 1997, Paauwe, 2009). In the present paper we focus on two behavioural outcome variables directed towards the organisation, namely organisational citizenship behaviour (OCB) and turnover intentions. Not only are these dependent variables highly relevant to organisations, they also represent two different processes. The enactment of OCB is an energising and activating process, in which employees enact discretionary efforts that promote the effectiveness of the organisation (Borman and Motowidlo, 1997, Organ, 1997), whereas exhibiting an intention to turnover is characterised as a withdrawal process (Murphy, 1989).

Secondly, in order to examine the influence of HRM practices on employee behaviour, researchers have argued that it is important to focus on how employees perceive those practices, rather than relying on accounts of the intentions behind HRM practices at a strategic level as reported by HRM professionals (e. g., Khilji and Wang, 2006, Nishii, Lepak and Schneider, 2008). We cannot assume that simply capturing policy data on an organisation's HRM strategy is sufficient to shed light on employees' experiences or beliefs about HRM (Gratton and Truss, 2003, Conway and Monks, 2008, Snape and Redman, 2010). As Nishii et al. (2008) observed,

individual perceptions of the aims and impact of HRM policies and practices inevitably vary. Thus far, relatively few studies have focused on individual experiences of HRM interventions, and so this paper contributes to our understanding of how employees' perceptions of HRM practices are linked with employee outcomes.

Thirdly, further research is needed to unearth the mechanisms through which HRM practices impact upon individual behaviours. Although several studies have examined POS, commitment and job satisfaction as mediating variables in the link between HRM and individual behaviours, the results of these studies have been mixed (e. g. Allen, Shore and Griffeth, 2003, Kuvaas, 2008, Snape and Redman, 2010, Kehoe and Wright, in press). The present study proposes an alternative mediator, namely, employee engagement. Recent evidence suggests that engagement may be a core underlying mechanism in the workplace that explains a wide range of behavioural and attitudinal outcomes (e. g. Schaufeli and Bakker, 2004, Rich, LePine and Crawford, 2010, Christian, Garza and Slaughter, 2011). To our knowledge, no published study to date has considered employee engagement as a mediating variable linking perceived HRM practices to OCB and turnover intentions.

Fourthly, with a few exceptions (e. g. Bakker and Xanthopoulou, 2009) research has yet to take into account how moderating variables might affect the relationship between engagement and individual behaviours. Previous research has unanimously demonstrated that job engagement increases the frequency with which individuals demonstrate OCBs towards the organisation and the extent to which individuals intend to remain with the organisation (e. g., Schaufeli and Bakker, 2004, Rich et al., 2010). However, Parker and Griffin (2011) have argued that more research is needed that investigates the boundary conditions that may influence the manifestation of engagement on employee behaviour. Analysing the moderating effect of organisational factors will help to depict the conditions under which engagement is most likely to result in positive individual behaviours.

In this paper, we respond to Parker and Griffin's (2011) call by arguing that the relationship between engagement, OCB and turnover intentions may not be straightforward. Although an engaged employee is enthusiastic and personally invested in the job, this does not necessarily imply that engaged employees will uniformly behave in ways to benefit the organisation; contextual factors in the work environment are likely to influence the extent to which engaged employees choose to enact OCBs and remain with the organisation. The present paper tests the proposition that the relationship between engagement and employee behaviours is strengthened by positive exchange relationships.

We focus here on the likely significance of positive exchange relationships in terms of both (POS) and leader-member exchange (LMX), within the framework of social exchange theory. These two constructs were chosen because they exemplify two different levels of the social exchange relationship between employees and their employer (Settoon, Bennett and Liden, 1996, Hofmann and Morgeson, 1999, Dulac, Coyle-Shapiro, Henderson and Wayne, 2008). POS represents the relationship an employee has with his or her organisation (Eisenberger, Huntington, Hutchison and Sowa, 1986), whereas LMX, or the relationship leaders establish with their followers, is a reflection of the perceived quality of the employee-line manager relationship (Graen and Uhl-Bien, 1995).

In summary, the present paper builds and tests a model that links perceptions of HRM practices with two important behavioural outcomes, namely, OCBs and intentions to turnover. We propose that engagement is the mechanism that triggers these relationships. Finally, we examine whether the relationships between engagement and the two employee behaviours under consideration are moderated by both POS and LMX.

Theoretical Background and Hypotheses

The Impact of Perceived HRM Practices on OCB and Turnover Intentions

Prior HRM scholars have mainly focused on analysing the effects of HRM systems on organisational-level outcomes, such as productivity and corporate performance and measured an organisation's HRM system by asking the views of single senior HRM professionals (e. g., Huselid, 1995, Datta, Guthrie and Wright, 2005, Som, 2008). More recently, however, scholars have called for more research which examines individual-level outcomes of employee perceptions of an organisation's HRM system, as employee perceptions of HRM practices may be more proximal predictors of individual attitudes and behaviours (e. g., Khilji and Wang, 2006, Nishii et al., 2008). Hence, rather than focusing on intended HRM practices as rated by HRM or line managers, the present study examines employees' perceptions of HRM practices. This is because the way employees experience or perceive their employers' HRM strategies influences their attitudes and behaviours. Individual differences in the perceptions of and reactions to an organisation's HRM practices stem from a range of factors such as past experience, values and beliefs or individual expectations (Den Hartog, Boselie and Paauwe, 2004). Hence, the same HRM system can be interpreted in different or even contrary ways, and it is individuals' perceptions of this system that are most relevant to individual level attitudinal and behavioural outcomes (Guest, 1999, Gerhart, Wright, McMahan and Snell, 2000, Gratton and Truss, 2003, Gerhart, 2005, Conway and Monks, 2008, Kuvaas, 2008).

Whilst a wide range of studies have examined how single HRM practices such as selection, training or performance management influence individual level behaviours (for an overview see Wright and Boswell, 2002, Boselie, Dietz and Boon, 2005), more recently researchers have argued that HRM practices and strategies need to be considered holistically rather than as individual practices to assess their impact on employee outcomes (Gould-Williams and

Mohamed, 2010, Snape and Redman, 2010). As individual practices can substitute, complement or conflict with other HRM practices (Wright and Boswell, 2002), scholars have increasingly focused on examining the effects of combinations of HRM practices, or so called HRM bundles on employee outcomes.

The notion of HRM bundles is central to a configurational HRM perspective, which proposes the bundling of interrelated elements of HRM practices in an internally consistent way according to a variety of contextual factors and a firm's strategic orientation (MacDuffie, 1995). HRM bundles can lead to higher effectiveness, as individual HRM practices that are part of the bundle create synergistic effects that are substantially greater than any single HRM practice alone (Gooderham, Parry and Ringdal, 2008). This suggests that employee perceptions of HRM bundles, rather than individual practices, may be relevant for determining employee attitudes and behaviours (Guest, Conway and Dewe, 2004, Paauwe, 2009).

Social exchange theory provides an explanatory framework to clarify how employee perceptions of HRM bundles are linked to OCB and turnover intentions. Social exchange theory is based on norms of reciprocity within social relationships. It is argued that employees who receive economic or socio-emotional benefits from their organisation feel obligated to respond in kind (Blau, 1964, Eisenberger et al., 1986, Rhoades and Eisenberger, 2002). An organisation's HRM practices may be viewed as signalling intent for long-term investment in employees that obligates them to respond with discretionary role behaviour (Sun, Aryee and Law, 2007, Shaw, Dineen, Fang and Vellella, 2009, Gong, Chang and Cheung, 2010). As Hannah and Iverson (2002, pp. 339) noted: 'HRM practices are viewed by employees as a "personalised" commitment to them by the organisation which is then reciprocated back to the organisation by employees through positive attitudes and behaviour'. As the focus of the exchange relationship is the organisation, we concentrate on OCB towards the organisation, rather than towards other employees in our study. We argue that employees who have positive

perceptions of their HRM practices exhibit more OCBs and are less likely to quit their organisation and hypothesise that:

Hypothesis 1a: Perceived HRM practices are positively related to OCB.

Hypothesis 1b: Perceived HRM practices are negatively related to turnover intentions.

The Mediating Influence of Employee Engagement on the Relationships between Perceived HRM Practices and OCB and Turnover Intentions

Whilst empirical findings have generally supported the notion that HRM practices are associated with positive individual and organisational outcomes, more recently commentators have sought to explore the mechanism through which HRM practices are linked to individual and organisational outcomes.

Studies have proposed that POS is a potential mediator linking employees' perceptions of HRM and their attitudes towards the organisation, notably, organisational commitment. Whilst there is some evidence that POS mediates the relationship between HRM practices and organisational commitment, study results have been inconsistent. For instance, Meyer and Smith (2009) and Allen et al. (2003) found support for the mediating role of POS on the link between HRM practices on organisational commitment. Nasurdin et al. (2008) found that POS only partially mediated the relationship between two of the three facets of HRM practices that were under investigation (career development and performance appraisal) and Hemdi (2009) found that POS partially mediated the relationship between only one of three HRM practices that were under consideration (training and development). Finally, Snape and Redman (2010) found no evidence of a mediating effect of POS on the relationship between HRM practices, OCB and performance.

Moreover, the theoretical model that depicts the relationship between HRM practices and performance introduced by Guest (1997) suggests that employee perceptions of HRM practices lead to outcomes which are attitudinal in nature, which in turn lead to behavioural outcomes such as OCB and turnover intentions. Researchers have drawn on the concept of situational strength to assess the simultaneous effects of a psychological state and other determinants of individual behaviour and argued that in situations which are dominated by other, more proximal factors, a construct such as POS is more likely to moderate the effect of behavioural cues on employee behaviour, rather than mediate it (Dirks and Ferrin, 2001). Taking Guest's (1997) model, together with the arguments which refer to situational strength, and the somewhat mixed extant results, POS may be better conceived as a moderator in the relationship between HRM and employee-level outcomes, rather than a mediator.

As mentioned, Guest (1997) suggested that attitudinal variables link HRM practices with employee behaviours. Two such attitudinal variables that have been explored in the extant literature are organisational commitment and job satisfaction. For instance, Kehoe and Wright (in press) found that affective organisational commitment partially mediated the relationship between perceived HRM and OCB and fully mediated the relationship between perceived HRM and turnover intentions, whereas Kuvaas (2008) failed to find support for affective commitment as a mediator in the relationship between perceptions of developmental HRM practices and turnover intentions. Similarly, while Nishii et al.'s (2008) model suggests that job satisfaction may mediate the relationship between employees' attribution of HRM practices and OCB, the authors did not specifically test for it, whereas Allen et al. (2003) found that the mediating effect of commitment on the link between perceived HRM and turnover intentions was stronger, relative to the mediating effect of job satisfaction. Hence, evidence of the mediating role of commitment and job satisfaction is mixed. A reason for this might lie in the conceptualisation of both constructs, in that commitment is related to attachment and job satisfaction implies

satiation. Recently, however, HRM commentators within the high-involvement work systems literature have argued that it is important to consider the cognitive and activated effects of HRM practices; this is because HRM practices are designed to empower employees in their daily work (Vandenberg, Richardson and Eastman, 1999, Boxall and Macky, 2009). We therefore argue that the relationship between HRM practices and behavioural outcomes may be better explained by a mediating variable which represents a more holistic view of an individual's self that includes activated components. One construct which encompasses emotional, cognitive and physical activation simultaneously, and therefore represents an inclusive view of an individual's self, is employee engagement (Rich et al., 2010). Hence, we suggest that employee engagement can be considered as a related, yet alternative mediator, which links perceived HRM bundles to OCB and turnover intentions.

The construct of employee engagement was first introduced by Kahn (1990) to signify the expression of self in-role, involving physical, cognitive and emotional dimensions (Schaufeli, Salanova, Gonzalez-Roma and Bakker, 2002, Schaufeli and Bakker, 2004, Truss et al., 2006, Salanova and Schaufeli, 2008, Rich et al., 2010). Studies of engagement draw on social exchange theory and suggest that people will become engaged with their work through investing intellectual effort, experiencing positive emotions and meaningful connections with others (Alfes, Truss, Soane, Rees and Gatenby, 2010, pp. 5) when antecedents are in place that signal to employees that they are valued and trusted (Saks, 2006, Rich et al., 2010). HRM practices are one way for an employer to signal their willingness to invest in and support their employees; hence perceived HRM practices may be linked with employee engagement.

There is some evidence to support the notion that engagement mediates the relationship between HRM practices and positive outcomes for both individuals and organisations. For instance, the job demands-resources model states that job demands such as work overload or emotional strain are associated with exhaustion, while a lack of job resources such as social

support or job control leads to disengagement (Demerouti, Nachreiner, Baker and Schaufeli, 2001). Empirical tests of the job demands-resources model have demonstrated that HRM-related job resources such as interpersonal and performance feedback (Schaufeli and Bakker, 2004), training opportunities (Salanova, Agut and Peiro, 2005) or task variety (Salanova and Schaufeli, 2008) were positively related to employee engagement, which in turn mediated the relationship between job resources and positive outcomes such as proactive behaviour, wellbeing and turnover intentions. Although these studies hint at the notion that HRM practices elicit engagement, which then leads to valuable outcomes, to our knowledge, no study to date has explored the mediating role of engagement in the relationship between perceived HRM practices on the one hand and OCB and turnover intentions on the other.

Following the preceding discussion, we expect that employees who positively appraise the HRM practices in their organisation are more engaged with their work. Further, we also propose that engagement is the mechanism which explains the relationship between perceived HRM practices and OCB and turnover intentions. Thus:

Hypothesis 2: Perceived HRM practices are positively related to employee engagement.

Hypothesis 3a: Employee engagement mediates the relationship between perceived HRM practices and OCB.

Hypothesis 3b: Employee engagement mediates the relationship between perceived HRM practices and turnover intentions.

Moderators of the Engagement - Employee Behaviour Relationship

Recently, findings have emerged which suggest that POS and LMX are distinct and pivotal variables in explaining the relationship between HRM practices and employee outcomes

(Kuvaas, 2008, Kuvaas and Dysvik, 2010). In this study, we build upon this collection of studies to explore the moderating effect of POS and LMX on the relationship between employee engagement and OCB and turnover intentions. While the research evidence is convincing that higher levels of engagement lead to favourable outcomes for individuals and the organisation, the literature is only beginning to uncover how these relationships vary as a function of an employee's relationship with his or her line manager and the organisation (Parker and Griffin, 2011). The present study, then, contributes to this more nuanced view of the effects of engagement on employee behaviour.

Perceived Organisational Support

According to organisational support theory, individuals form general beliefs about the extent to which the organisation values their contributions and supports their wellbeing (Eisenberger et al., 1986). These beliefs form a frame of reference within which individuals interpret actions taken by the organisation and subsequently adjust their own behaviour accordingly. The norm of reciprocity suggests that employees who perceive that their organisation provides them with a high level of support feel morally obliged to contribute to the organisation (Dulac et al., 2008).

Most research has focused on the direct effects of POS (e. g., Rhoades and Eisenberger, 2002) and research has revealed that POS has a direct effect on employee attitudes and behaviours, leading, for example, to higher levels of engagement (Rich et al., 2010) and OCB (Wayne, Shore and Liden, 1997) and lower levels of turnover intentions (Wayne et al., 1997). However, scholars have focused less on analysing the different mechanisms through which these benefits occur. Hence, while we acknowledge that there is empirical evidence to support a direct relationship between POS and employee attitudes and behaviours, we propose that this is not the only way through which POS can unfold its positive consequences, and suggest that POS may in fact act as a moderator in the relationship between employee engagement and OCB

towards the organisation and turnover intentions. This contention is supported by Baron and Kenny (1986) who stated that a variable can be treated as either a mediator or moderator depending on the theoretical framework adopted.

Since the locus of engagement is the job (Kahn, 1990, Schaufeli and Bakker, 2004), engaged employees are enthusiastic and devote energy to it, thereby achieving higher levels of task performance (Christian et al., 2011). However, there is no guarantee that highly engaged employees translate their energy into behaviours directed towards the organisation uniformly. Engaged employees may vary in the extent to which they give back to the organisation in the form of OCBs and intentions to remain in the organisation, and we propose that perceptions of organisational support are one of the reasons for such variation. In the present paper, we argue that engaged employees who have positive perceptions of organisational support are more likely to translate their engagement into OCBs that support the organisation. They are also more likely to want to stay with their current employer and continue to invest their effort in their current jobs. In contrast, engaged employees who feel that they receive low levels of support from their organisation, whilst they continue to exert effort in their jobs, are less motivated to demonstrate OCBs to help the organisation. Moreover, these employees might decide to leave the organisation to invest their energy into a similar job at a different organisation. Therefore, while employee engagement can provide the motivational drive to exhibit OCBs or to stay with the organisation, POS strengthens the extent to which engaged employees actually demonstrate these behaviours. Thus:

Hypothesis 4a: The positive association between employee engagement and OCB is moderated by POS, such that it is stronger for higher than for lower levels of POS.

Hypothesis 4b: The negative association between employee engagement and turnover intentions is moderated by POS, such that it is stronger for lower than for higher levels of POS.

Leader-Member Exchange

LMX theory is based on the premise that the exchange relationships that leaders develop with their followers differ with regard to the resources, information and support exchanged by both parties (Wayne et al., 1997, Liden, Erdogan, Wayne and Sparrowe, 2006). Low quality relationships are characterised by low levels of trust and obligation, where followers only do what is defined as part of their job description (Graen and Uhl-Bien, 1995). Conversely, high quality relationships are characterised by mutual trust, respect, liking and reciprocal influence (Liden and Maslyn, 1998).

Leadership has been identified as one key driver of employee engagement. Studies have, for example, demonstrated that transformational leadership (Tims, Bakker and Xanthopoulou, 2011), charismatic leadership (Babcock-Roberson and Strickland, 2010) and authentic leadership (Walumbwa, Wang, Wang, Schaubroeck and Avolio, 2010) are all directly related to how engaged individuals are with their job. Although no published studies, to our knowledge, have examined leadership as a moderator of the relationship between engagement and employee behaviours, research in other domains has proposed that leadership moderates direct relationships, such as that between fairness perceptions and OCB (Johnson, Truxillo, Erdogan, Bauer and Hammer, 2009) and empowerment and OCB and turnover intentions (Harris, Wheeler and Kacmar, 2009). We build upon these studies and argue that although engaged employees are fully engrossed with their jobs, their direct supervisors may have an important role to play in terms of whether an individual's activated or energetic condition is maximally

translated into behavioural outcomes. Just as POS may strengthen the relationship between engagement and OCBs and intentions to remain a member of the organisation, so too might leadership.

In high-LMX relationships individuals trust their managers, and interpret meaning and intent of management initiatives in a positive way (Furst and Cable, 2008), and therefore may direct some of their energies into demonstrating OCBs. They may also be more likely to remain with the organisation as they feel trusted and supported by their managers. Although engaged employees who report a low-quality LMX relationship may continue to invest energy into their jobs and enjoy carrying out the tasks associated with their job, they may be reluctant to go out of their way to assist the organisation. Engaged employees who do not feel supported by their line manager may also decide to invest their energy into carrying out a similar job in a different organisation. This suggests that LMX may function as a moderating variable, which impacts the extent to which engagement is translated into positive behaviours towards the organisation.

Hence:

Hypothesis 5a: The positive association between employee engagement and OCB is moderated by LMX, such that it is stronger for higher than for lower levels of LMX.

Hypothesis 5b: The negative association between employee engagement and turnover intentions is moderated by LMX, such that it is stronger for lower than for higher levels of LMX.

Methods

Sample and Procedure

We drew our sample from one division of a large UK organisation. The organisation is a support services partner providing business solutions for clients across the local government, transport, education and defence sectors. The division was identified by the HR Director for participation in the study, as its employees presented a good representation of the overall workforce. Employees were informed about the purpose of the study and its confidentiality, and encouraged to participate in the survey within two weeks. All employees were given time to complete the survey at work.

The authors of the present study were provided with the organisation's HRM strategy, and interviewed the HR Director. The HR Director seeks ways to position the HRM department as a strategic partner in the organisation. She acknowledges the importance of synchronicity among the various HRM practices in order to implement an effective HRM system. The objective for the HRM department is to create a culture which emphasises customer service and high performance.

All employees were invited to take part in the survey. From the sample of 540 employees, 328 questionnaires were completed, constituting a response rate of 61%. Deletion of missing values resulted in a usable sample of 297 employees. The sample comprised 47.8 percent men; the average age was 39.61 years (s.d. = 10.27); and the average tenure was 6.48 years (s.d. = 5.65). The respondents represented a range of occupational backgrounds including professionals (6.0%), administration (41.7%), managers or senior officials (40.7%), retail, customer and personal services (8.6%), and machine operators (3.0%).

Measures

Perceived HRM practices. We measured perceived HRM practices with a 9-item scale developed by Gould-Williams and Davies (2005). A sample item is, "I am provided with

sufficient opportunities for training and development.” The response scale ranged from 1 (“strongly disagree”) to 7 (“strongly agree”). Internal consistency was .77.

Employee Engagement. Employee engagement was measured with a 12-item scale adapted from Rich et al. (2010). A sample item is, “I feel positive about my work.” The response scale ranged from 1 (“strongly disagree”) to 7 (“strongly agree”). Internal consistency was .88.

Perceived organisational support. POS was measured with the 4-item, 7-point version of the Survey of Perceived Organisational Support (Eisenberger et al., 1986). Participants responded to items, such as “My organisation shows concern for me.” The response scale ranged from 1 (“strongly disagree”) to 7 (“strongly agree”). Internal consistency was .95.

LMX. LMX was measured with Graen and Uhl-Bien’s (1995) 7-item, 7-point LMX measure. An example item is, “My working relationship with my leader is effective”. The response scale ranged from 1 (“strongly disagree”) to 7 (“strongly agree”). Internal consistency was .92.

OCB directed towards the organisation. We measured OCB with a 4 item, 7-point frequency scale developed by Lee and Allen (2002). An example item is, “Offered ideas to improve the functioning of [the organisation]”. The response scale ranged from 1 (“never”) to 7 (“very often”). Internal consistency was .82.

Turnover Intentions. We measured turnover intentions with a 2-item scale developed by Boroff and Lewin (1997). An example item is, “During the next year, I will probably look for a new job outside my current employer”. The response scale ranged from 1 (“strongly disagree”) to 7 (“strongly agree”). The Spearman Brown coefficient was .95.

Control Variables. In all analyses, we entered the following control variables: age, gender (1, female; 0, male), full time vs. part time (1, full time; 0, part-time), permanent vs. fixed term contract (1, permanent; 0, fixed term), working hours, and job role which contained three

dummy variables (coded 1/0), namely, “managerial”, “administrative”, and “other”, whereby other was used as the comparison group. These control variables were included in the analysis because Kinnie, Hutchinson, Purcell, Rayton, and Swart (2005) found that variation in job type and other employee characteristics influence how individuals perceive HRM practices.

Results

Descriptive Statistics

Table 1 presents the scale reliabilities, means and standard deviations for each scale, and inter-scale correlations for all study variables. The inter-scale correlations show the expected direction of association and, with one exception, are all significant at the $p < .01$ level. In general, correlation coefficients above .70 may increase the likelihood of multicollinearity in a regression (Tabachnick and Fidell, 1996). However, all correlations in our study were below this threshold, indicating that all measures were appropriate for inclusion in the analyses. Further, all variance inflation factors in the regressions were below 2. This suggests that multicollinearity is not overly problematic in the present study. As all measures in our study were taken at the same point of time, we cannot test for causal relationships. Therefore, the results presented should be interpreted as non-directional relationships.

(Insert Table 1 about here)

Measurement Models

To control for the influence of common method bias in our study, we followed established recommendations (Podsakoff, MacKenzie, Jeong-Yeon and Podsakoff, 2003) and used established scales only, explained the procedures to our participants, and guaranteed

anonymity. Furthermore, we used filler items and different instructions to create a psychological separation between the sets of variables.

Moreover, to detect and control for the influence of common method bias through statistical remedies we performed a series of confirmatory factor analyses (CFA) on the dataset. We calculated six fit indices to determine how the model fitted our data (Hair, Black, Babin, Anderson and Tatham, 2005). For the χ^2/df values less than 2.5 indicate a good fit (Arbuckle, 2006). For the Tucker–Lewis index (TLI), incremental fit index (IFI), and comparative fit index (CFI) values greater than .9 represent a good model fit (Bentler, 1990), and for the Root Mean Square Error of Approximation (RMSEA), and Standardized Root Mean Square Residual (SRMR) values less than .08 indicate a good model fit (Browne and Cudeck, 1993, Hu and Bentler, 1998).

We initially performed a CFA on the full measurement model, where all items loaded on to their latent factors as intended (Anderson and Gerbing, 1988, Hair et al., 2005). Overall, the measurement model exhibited good psychometric properties (see Table 2). All path estimates were significant ($p < .001$) and the lowest standardised value was .47. To further test for common method variance we conducted Harman’s single-factor test, which involves a CFA where all variables were allowed to load onto one general factor. The model exhibited very poor fit, which provided a good indication that a single factor did not account for the majority of variance in our data.

In order to analyse whether all variables in our study were distinct, we performed a series of nested model comparisons. Specifically, we compared the full measurement model comprising all latent variables with a range of alternative models as described in Table 2. Results of sequential χ^2 difference tests revealed that the model fit of the intended model with six distinct variables was significantly better than all other models (all at $p < .001$). This

suggests that all variables were distinct in the present study and therefore appropriate for inclusion in the analyses.

(Insert Table 2 about here)

Test of Hypotheses

We used hierarchical multiple regressions to test hypotheses 1 to 3, and hierarchical moderated regression to test hypotheses 4 to 5. We tested moderated mediation using steps outlined by Preacher, Rucker and Hayes (2007). All main study independent variables were standardised in all analyses so that tests of the interactions could be carried out, and also to reduce the likelihood that multicollinearity could influence the results; the dependent variables were unstandardised (Aiken and West, 1991).

Hypothesis 1 stated that perceived HRM practices are positively related to OCB (H1a) and turnover intentions (H1b), whilst Hypotheses 2 and 3 proposed that perceived HRM practices are positively related to engagement (H2) and engagement mediates the relationship between perceived HRM practices and OCB (H3a) and turnover intentions (H3b). We tested for mediation following the steps outlined by Baron and Kenny (1986). To establish mediation, the independent variable must be correlated with the outcome variable, the independent variable must be correlated with the mediator variable, and when the independent and mediator variables are both entered into the regression equation, the independent variable should drop in strength and/or significance.

(Insert Table 3 about here)

Results in the first column of Table 3 indicate that perceived HRM practices are significantly related to OCB, thereby lending support for H1a, and satisfying the first condition for

mediation. The first column further reveals that engagement is significantly related to OCB, and the third column shows that perceived HRM practices are significantly related to engagement; therefore, H2 is supported, and the next two requirements of mediation have been met. Finally, when both perceived HRM practices and engagement are entered into the model simultaneously (column 1), perceived HRM practices drops from significance indicating that engagement mediates the relationship between perceived HRM practices and OCB.

With regard to turnover intentions, column 2 of Table 3 reveals that perceived HRM practices are significantly and negatively related to turnover intentions, supporting H1b and meeting the first condition for mediation. Column 2 also reveals that the main effect of engagement is significantly and negatively related to turnover intentions. When both the independent and mediator variables are put into the model together, both remain significant, indicating partial mediation.

To further assess the mediation, Sobel's test (1982) for indirect effects was conducted. The results show that the intervening effects of engagement on the relationship between perceived HRM practices and OCB and turnover intentions were both significant ($p < .05$). Therefore, H3a is supported, and H3b is partially supported.

Our next set of hypotheses predicted that the relationship between engagement and OCB as well as the relationship between engagement and turnover intentions would be moderated by POS (H4), and LMX (H5). To assess moderated mediation (Muller, Judd and Yzerbyt, 2005, Preacher et al., 2007), we first needed to demonstrate that HRM practices are associated with OCB and turnover intentions. Table 3 presents these significant results. Second, we investigated whether there were significant interactions between engagement, and each of the proposed moderators on OCB and turnover intentions, while controlling for perceived HRM practices (Preacher et al., 2007). Results of the moderated regressions of POS and LMX and engagement

on OCB and turnover intentions are shown in Table 4. The results reveal that both moderators, namely, POS and LMX, interacted with engagement to predict OCB. Therefore, Hypotheses H4a and H5a were supported. The Table also reveals that the interaction between POS and engagement on turnover intentions was significant, supporting H4b. The interaction between leadership and engagement on turnover intentions was not significant. Hence, we did not find support for H5b.

(Insert Table 4 about here)

The third condition for moderated mediation as set forth by Preacher et al. (2007) has already been supported; engagement is positively related to OCB and turnover intentions (see Table 3). To test the fourth condition, we examined whether the magnitude of the conditional indirect effect of perceived HRM practices through engagement was different at high versus low levels of POS on OCB and turnover intentions, and LMX on OCB. Preacher et al.'s (2007) statistical significance test was used, whereby a z statistic was computed for the conditional indirect effect. We operationalised high and low levels of each of the moderators as one standard deviation above and below the mean score. The estimates, standard errors, z statistics, and significance values of the conditional indirect effects are presented in Table 5.

(Insert Table 5 about here)

The results shown in Table 5 reveal that the indirect effects of LMX and POS and engagement were significant at high levels for each moderator for OCB-O. For turnover, on the other hand, the results show that the effect of POS and engagement was significant at low levels of POS. Plots for these interactions are found in Figure 1.

(Insert Figure 1 about here)

Discussion

In response to calls for studies analysing HRM practices in the context of their implementation within a broader organisational system (Wright and Boswell, 2002, Guest, 2011), we explored processes of mediation and moderation linking perceived HRM practices to OCB and turnover intentions. We proposed that employee engagement mediates the relationship between perceived HRM practices and these outcome variables and further, that the strength of the association between employee engagement and individual behaviour is moderated by employees' perceptions of POS and LMX. Data from 297 employees in a service sector organisation in the UK support our model. The results have several theoretical and practical implications, which we consider in turn.

The present study sheds light on the nature of the relationship between perceived HRM practices and employee behaviour. Our study shows that where employees' perceptions of HRM practices are positive, citizenship behaviour is enhanced and turnover intentions are decreased. These findings add to a growing collection of studies that examine the effect of perceptions of, rather than intended, HRM practices on employee behaviours (e. g., Kuvaas, 2008, Nishii et al., 2008).

Moreover, our research illuminates employee engagement as a mechanism which accounts for the relationship between HRM practices and individual behaviour. Individuals who have a positive perception of the HRM practices in their organisation are more likely to be engaged with their jobs and therefore have a higher propensity to enact OCBs and remain with the organisation. By introducing a new mediator in the relationship between HRM and employee behaviour, we extend previous research, which has mainly focused on POS, commitment and job satisfaction (Nishii et al., 2008, Conway and Monks, 2009, Snape and Redman, 2010). We

argue that although employee engagement is conceptually related to POS, satisfaction and commitment, engagement is better positioned to mediate the relationship between HRM and employee behaviours. This is because it captures a more holistic attitude as it is composed of cognitive, emotional and physical elements. We therefore encourage future studies to incorporate employee engagement as a mediating mechanism through which HRM practices influence individual and organisational outcome variables.

Finally, our study suggests that organisational variables impact upon employee engagement and behaviour through employee perceptions and interpretations of the working climate. The extent to which high levels of engagement lead to positive behaviours is contingent upon the employee-organisation and employee-line manager relationships. Specifically, our results demonstrate that the frequency with which engaged employees enact OCBs and the extent to which they choose to remain with their organisation can be increased if certain boundary conditions are in place which encourage employees to express their engagement in positive ways directed towards the organisation. Engaged employees show more OCBs towards the organisation if they feel supported by the organisation and have a positive relationship with their line manager. They are also less likely to leave and invest their energy in a different organisation if they feel supported and valued by their employer.

These findings illustrate that the relationship between engagement and employee behaviour might not be a straightforward association as is assumed in most engagement research to date. The findings rather point to the importance of contextual variables which moderate this relationship. Engaged employees can behave in different ways (Parker and Griffin, 2011); they may demonstrate fewer citizenship behaviours or report less loyalty, not because they lack enthusiasm for their job, but instead because conditions in the working environment do not lead them to do so. This has important implications for the employee engagement literature, which has not fully delineated the conditions under which engagement leads to positive behaviours.

More research is needed to explore the features of the working environment that may be relevant in directing and focussing individuals' levels of engagement in positive ways. The present findings revealed that POS and LMX are such features. This finding suggests that POS should be incorporated as a moderator, rather than a mediator, in studies exploring the relationship between HRM practices and employee level outcomes, specifically if other, more proximal variables are included in analyses. Moreover, future research could further analyse how contextual variables, such as an employee's trust in the organisation (Aryee, Budhwar and Zhen Xiong, 2002), can foster individual and collective perceptions of the work climate as moderators of the relationship between individual attitudes and behaviours.

In practical terms, our results indicate that organisations need to be aware that, in addition to a consistent set of HRM bundles, the wider organisational climate is critical to establishing a positive environment in which employees are willing to translate their engagement to higher levels of OCBs and lower turnover intentions. Although employees who have positive perceptions of the HRM practices in their organisation demonstrate higher levels of engagement, the extent to which they feel supported as well as the quality of the relationship with their line manager eventually influences the extent to which they enact more OCBs and want to remain with their employer. It is therefore not sufficient to merely engage people in their work; employees also need a positive relationship with their manager and their organisation to maximise the benefits of engagement.

Our results reveal insights into the changing relationship between HRM professionals and line managers. Line managers play an important role in the enactment of HRM practices (Gilbert, De Winne and Sels, 2011, Sanders and Frenkel, 2011); it is only through collaboration between both parties that HRM practices can yield positive outcomes (Purcell and Hutchinson, 2007). Hence, HRM professionals need to work closely with line managers to ensure that HRM

practices are implemented effectively and that line managers, in their day to day interaction with employees, create a positive and trustful working atmosphere.

Arguably, the objective of strategic HRM is to evoke positive employee attitudes and improve individual and organisational performance. The crucial question for HRM professionals is how to manage this process to achieve those objectives. Our results show that employee perceptions of HRM practices play an important role in raising levels of employee engagement. However the extent to which engagement is translated into positive employee behaviours towards the organisation varies as a function of POS and LMX. Specifically, individuals who are highly engaged with their work benefit from these broader organisational factors. However, those who report low levels of engagement with their work do not benefit to the same extent from POS and LMX. This means that managers need to first focus on increasing a person's engagement with their job, and then supplement this with a supportive environment. Creating a highly engaged workforce has become a significant focus for many organisations recently (MacLeod and Clarke, 2009, Truss, Soane, Alfes, Rees and Gatenby, 2010), and our study shows that HRM professionals, line and senior managers have to work together to create a virtuous cycle to ensure that engaged employees demonstrate OCBs and are likely to stay with the organisation.

Although our research provides new evidence pertaining to the moderating effect of the employee-organisation and employee-line manager relationships on the relationship between HRM practices and employee behaviour, our results should be assessed against the background of the limitations inherent in our study. First, we collected data at one point in time, which limits the conclusions that can be made regarding the causal order of our relationships. We would therefore welcome experimental or longitudinal research designs to substantiate the causality of our hypotheses. For instance, employees could be randomly assigned to participate in either a particularly engaging (experimental condition) or dull (control condition) task. A performance

measure could be taken for groups that differ with regard to the relationship they have with their manager, and/or the support that they feel they receive from the organisation. Based on the findings of the present study, we would expect that LMX or POS would increase performance on the task in the experimental, relative to the control condition.

Second, we relied on individuals' self-reports on all variables of our model which raises the concern of possible common method bias. However, our statistical analyses revealed that common methods bias did not cause a major concern in our study. Moreover, the focus in our current study was on employee perceptions of HRM, their organisation and their line managers and so we would argue that self-report measures might actually be the most valid measurement method for most of our variables, as individuals are best placed to report their own levels of engagement, their perceptions of HRM practices, the organisational climate, line manager behaviour and their intentions to stay with their current employer. Hence, the only construct which could have been measured by multiple data sources is OCB. Nevertheless, we encourage future researchers to collect data from multiple sources to investigate our findings further.

To conclude, our study has contributed to debates around the role of HRM in influencing employee behaviour. We did so through the development and testing of a moderated mediation model. Specifically, we introduced employee engagement as a key attitudinal variable, and introduced the employee-organisation as well as employee-line manager relationships as vital elements in this causal chain. We found that employee engagement mediated the relationship between perceived HRM practices and two types of employee behaviour, namely OCB and turnover intentions. We further found that POS and LMX moderated the link between engagement and these outcome variables. The findings are consistent with the central propositions of social exchange theory, which suggests that organisations that are able to cultivate a climate of reciprocity will likely elicit positive attitudinal and behavioural outcomes from employees. It is clear from our study that employees consider their experiences of HRM

within the context of the broader organisational environment and their day-to-day working lives. HRM's contribution therefore lies in helping to create a holistic and consistent people management approach that transcends the role of the HRM department alone to encompass the behavioural interventions of all line and senior managers.

References

- Aiken, L.S., and West, S.G. (1991), *Multiple Regression: Testing and Interpreting Interactions*, Newbury Park: Sage.
- Alfes, K., Truss, C., Soane, E.C., Rees, C., and Gatenby, M. (2010), *Creating an Engaged Workforce*, Wimbledon: CIPD.
- Allen, D.G., Shore, L.M., and Griffeth, R.W. (2003), 'The Role of Perceived Organizational Support and Supportive Human Resource Practices in the Turnover Process', *Journal of Management*, 29, 99-118.
- Anderson, J.C., and Gerbing, D.W. (1988), 'Structural Equation Modeling in Practice: A Review and Recommended Two-Step Approach', *Psychological Bulletin*, 103, 411-423.
- Arbuckle, J.L. (2006), *AMOS (Version 7.0) [Computer Program]*, Chicago: SPSS.
- Aryee, S., Budhwar, P.S., and Zhen Xiong, C. (2002), 'Trust as a mediator of the relationship between organizational justice and work outcomes: test of a social exchange model', *Journal of Organizational Behavior*, 23, 267-285.
- Babcock-Roberson, M.E., and Strickland, O.J. (2010), 'The relationship between charismatic leadership, work engagement and organizational citizenship behaviors', *Journal of Psychology*, 144, 313-326.
- Bakker, A.B., and Xanthopoulou, D. (2009), 'The crossover of daily work engagement: Test of an actor-partner interdependence model', *Journal of Applied Psychology*, 94, 1562-1571.
- Baron, R.M., and Kenny, D.A. (1986), 'The moderator-mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations', *Journal of Personality and Social Psychology*, 51, 1173-1182.
- Bentler, P.M. (1990), 'Comparative Fit Indexes in Structural Models', *Psychological Bulletin*, 107, 238-246.
- Blau, P.M. (1964), *Exchange and Power in Social Life*, New York: Wiley.
- Borman, W.C., and Motowidlo, S.J. (1997), 'Task Performance and Contextual Performance: The Meaning for Personnel Selection Research', *Human Performance*, 10, 99-109.
- Boroff, K.E., and Lewin, D. (1997), 'Loyalty, voice, and intent to exit a union firm. A conceptual and empirical analysis', *Industrial & Labor Relations Review*, 51, 50-63.
- Boselie, P., Dietz, G., and Boon, C. (2005), 'Commonalities and contradictions in HRM and performance research', *Human Resource Management Journal*, 15, 67-94.

- Boxall, P., and Macky, K. (2009), 'Research and theory on high-performance work systems: progressing the high-involvement stream', *Human Resource Management Journal*, 19, 3-23.
- Browne, M.W., and Cudeck, R. (1993), 'Alternative ways of assessing model fit', in *Testing structural equation models*, eds. K.A. Bollen, and J.S. Long, Newbury Park: Sage, pp. 136-162.
- Christian, M.S., Garza, A.S., and Slaughter, J.E. (2011), 'Work Engagement. A quantitative review and test of its relation with task and contextual performance', *Personnel Psychology*, 64, 89-136.
- Conway, E., and Monks, K. (2008), 'HR practices and commitment to change: an employee-level analysis', *Human Resource Management Journal*, 18, 72-89.
- Conway, E., and Monks, K. (2009), 'Unravelling the complexities of high commitment: an employee-level analysis', *Human Resource Management Journal*, 19, 140-158.
- Datta, D.K., Guthrie, J.P., and Wright, P.M. (2005), 'Human Resource Management and Labor Productivity. Does Industry Matter?', *Academy of Management Journal*, 48, 135-145.
- Demerouti, E., Nachreiner, F., Baker, A.B., and Schaufeli, W.B. (2001), 'The Job Demands-Resources Model of Burnout', *Journal of Applied Psychology*, 86, 499-512.
- Den Hartog, D.N., Boselie, P., and Paauwe, J. (2004), 'Performance Management. A Model and Research Agenda', *Applied Psychology*, 53, 556-569.
- Dirks, K.T., and Ferrin, D.L. (2001), 'The Role of Trust in Organizational Settings', *Organization Science*, 12, 450-467.
- Dulac, T., Coyle-Shapiro, J.A.M., Henderson, D.J., and Wayne, S.J. (2008), 'Not all responses to breach are the same. The interconnection of social exchange and psychological contract processes in organizations', *Academy of Management Journal*, 51, 1079-1098.
- Eisenberger, R., Huntington, R., Hutchison, S., and Sowa, D. (1986), 'Perceived Organizational Support', *Journal of Applied Psychology*, 71, 500-507.
- Furst, S.A., and Cable, D.M. (2008), 'Employee Resistance to Organizational Change: Managerial Influence Tactics and Leader-Member Exchange', *Journal of Applied Psychology*, 93, 453-462.
- Gerhart, B. (2005), 'Human Resources and Business Performance: Findings, Unanswered Questions, and an Alternative Approach', *Management Review*, 16, 174-185.
- Gerhart, B., Wright, P.M., McMahan, G.C., and Snell, S.A. (2000), 'Measurement Error in Research on Human Resources and Firm Performance: How much Error is there and how does it influence Effect Size Estimates?', *Personnel Psychology*, 53, 803-834.

- Gilbert, C., De Winne, S., and Sels, L. (2011), 'The influence of line managers and HR department on employees' affective commitment', *The International Journal of Human Resource Management*, 22, 1618-1637.
- Gong, Y., Chang, S., and Cheung, S.-Y. (2010), 'High performance work system and collective OCB: a collective social exchange perspective', *Human Resource Management Journal*, 20, 119-137.
- Gooderham, P., Parry, E., and Ringdal, K. (2008), 'The impact of bundles of strategic human resource management practices on the performance of European firms', *International Journal of Human Resource Management*, 19, 2041-2056.
- Gould-Williams, J., and Davies, F. (2005), 'Using social exchange theory to predict the effects of HRM practice on employee outcomes', *Public Management Review*, 7, 1-24.
- Gould-Williams, J., and Mohamed, R.B. (2010), 'A comparative study of the effects of 'best practice' HRM on worker outcomes in Malaysia and England local government', *International Journal of Human Resource Management*, 21, 653-675.
- Graen, G.B., and Uhl-Bien, M. (1995), 'Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective', *The Leadership Quarterly*, 6, 219-247.
- Gratton, L., and Truss, C. (2003), 'The three-dimensional people strategy: Putting human resources policies into action', *Academy of Management Executive*, 17, 74-86.
- Guest, D.E. (1997), 'Human resource management and performance: a review and research agenda', *International Journal of Human Resource Management*, 8, 263-276.
- Guest, D.E. (1999), 'Human resource management - the workers' verdict', *Human Resource Management Journal*, 9, 5-24.
- Guest, D.E. (2011), 'Human resource management and performance: still searching for some answers', *Human Resource Management Journal*, 21, 3-13.
- Guest, D.E., Conway, N., and Dewe, P. (2004), 'Using sequential tree analysis to search for 'bundles' of HR practices', *Human Resource Management Journal*, 14, 79-96.
- Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E., and Tatham, R.L. (2005), *Multivariate Data Analysis*, New Jersey: Pearson Prentice Hall.
- Hannah, D.R., and Iverson, R.D. (2002), 'Employment Relationships in Context: Implications for Policy and Practice', in *The Employment Relationship: Examining Psychological and Contextual Perspectives*, eds. J.A.M. Coyle-Shapiro, L. Shore, S. Taylor, and L. Tetrick, Oxford: Oxford University Press, pp. 332-350.

Harris, K.J., Wheeler, A.R., and Kacmar, K.M. (2009), 'Leader–member exchange and empowerment: Direct and interactive effects on job satisfaction, turnover intentions, and performance', *The Leadership Quarterly*, 20, 371-382.

Hemdi, M.A. (2009), 'Investigating Hotel Employees' Organizational Commitment: The Influence of Human Resource Management Practices and Perceived Organizational Support', *Journal of Tourism, Hospitality and Culinary Arts*, 1, 1-18.

Hofmann, D.A., and Morgeson, F.P. (1999), 'Safety-Related Behavior as a Social Exchange: The Role of Perceived Organizational Support and Leader-Member Exchange', *Journal of Applied Psychology*, 84, 286-296.

Hu, L., and Bentler, P.M. (1998), 'Fit Indices in Covariance Structure Modeling: Sensitivity to Underparameterized Model Misspecification', *Psychological Methods*, 3, 424-453.

Huselid, M.A. (1995), 'The impact of human resource management practices on turnover, productivity, and corporate financial performance', *Academy of Management Journal*, 38, 635-672.

Johnson, J., Truxillo, D.M., Erdogan, B., Bauer, T.N., and Hammer, L. (2009), 'Perceptions of Overall Fairness: Are Effects on Job Performance Moderated by Leader-Member Exchange?', *Human Performance*, 22, 432-449.

Kahn, W.A. (1990), 'Psychological conditions of personal engagement and disengagement at work', *Academy of Management Journal*, 33, 692-724.

Kehoe, R.R., and Wright, P.M. (in press), 'The Impact of High Performance Human Resource Practices on Employees' Attitudes and Behaviors', *Journal of Management*.

Khilji, S.E., and Wang, X. (2006), 'Intended' and 'implemented' HRM: the missing linchpin in strategic human resource management research', *International Journal of Human Resource Management*, 17, 1171-1189.

Kinnie, N., Hutchinson, S., Purcell, J., Rayton, B., and Swart, J. (2005), 'Satisfaction with HR practices and commitment to the organisation: why one size does not fit all', *Human Resource Management Journal*, 15, 9-29.

Kuvaas, B. (2008), 'An Exploration of How the Employee–Organization Relationship Affects the Linkage Between Perception of Developmental Human Resource Practices and Employee Outcomes', *Journal of Management Studies*, 45, 1-25.

Kuvaas, B., and Dysvik, A. (2010), 'Exploring alternative relationships between perceived investment in employee development, perceived supervisor support and employee outcomes', *Human Resource Management Journal*, 20, 138-156.

Lee, K., and Allen, N.J. (2002), 'Organizational citizenship behavior and workplace deviance: The role of affect and cognitions', *Journal of Applied Psychology*, 87, 131-142.

Liden, R.C., Erdogan, B., Wayne, S.J., and Sparrowe, R.T. (2006), 'Leader-member exchange, differentiation, and task interdependence: implications for individual and group performance', *Journal of Organizational Behavior*, 27, 723-746.

Liden, R.C., and Maslyn, J.M. (1998), 'Multidimensionality of Leader-Member Exchange: An Empirical Assessment through Scale Development', *Journal of Management*, 24, 43-72.

MacDuffie, J.P. (1995), 'Human resource bundles and manufacturing performance. Organizational logic and flexible production systems in the world auto industry', *Industrial & Labor Relations Review*, 48, 197-221.

MacLeod, D., and Clarke, N. (2009), 'Engaging for Success: Enhancing Performance through Employee Engagement', Office of Public Sector Information.

Meyer, J.P., and Smith, C.A. (2009), 'HRM Practices and Organizational Commitment: Test of a Mediation Model', *Canadian Journal of Administrative Sciences*, 17, 319-334.

Muller, D., Judd, C.M., and Yzerbyt, V.Y. (2005), 'When Moderation Is Mediated and Mediation Is Moderated', *Journal of Personality & Social Psychology*, 89, 852-863.

Murphy, K.R. (1989), 'Dimensions of Job Performance', in *Testing. Applied and theoretical perspectives*, eds. R. Dillon, and J. Pellingrino, New York: Praeger, pp. 218-247.

Nasurdin, A.M., Hemdi, M.A., and Guat, L.P. (2008), 'Does perceived organizational support mediate the relationship between human resource management practices and organizational commitment?', *Asian Academy of Management Journal*, 13, 15-36.

Nishii, L.H., Lepak, D.P., and Schneider, B. (2008), 'Employee Attributions of the "Why" of HR Practices: Their Effects on Employee Attitudes and Behaviors, and Customer Satisfaction', *Personnel Psychology*, 61, 503-545.

Organ, D.W. (1997), 'Organizational Citizenship Behavior: It's Construct Clean-Up Time', *Human Performance*, 10, 85-97.

Paauwe, J. (2009), 'HRM and Performance: Achievements, Methodological Issues and Prospects', *Journal of Management Studies*, 46, 129-142.

Parker, S., and Griffin, M. (2011), 'Understanding active psychological states: Embedding engagement in a wider nomological net and closer attention to performance', *European Journal of Work and Organizational Psychology*, 20, 60-67.

Podsakoff, P.M., MacKenzie, S.B., Jeong-Yeon, L., and Podsakoff, N.P. (2003), 'Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies', *Journal of Applied Psychology*, 88, 879-903.

- Preacher, K.J., Rucker, D.D., and Hayes, A.F. (2007), 'Addressing moderated mediation hypotheses: Theory, methods, and prescriptions', *Multivariate Behavioral Research*, 42, 185-227.
- Purcell, J., and Hutchinson, S. (2007), 'Front-line managers as agents in the HRM-performance causal chain: theory, analysis and evidence', *Human Resource Management Journal*, 17, 3-20.
- Rhoades, L., and Eisenberger, R. (2002), 'Perceived Organizational Support: A Review of the Literature', *Journal of Applied Psychology*, 87, 698-714.
- Rich, B.L., LePine, J.A., and Crawford, E.R. (2010), 'Job Engagement. Antecedents and Effects on Job Performance', *Academy of Management Journal*, 53, 617–635.
- Saks, A.M. (2006), 'Antecedents and consequences of employee engagement', *Journal of Managerial Psychology*, 21, 600-619.
- Salanova, M., Agut, S., and Peiro, J.M. (2005), 'Linking organizational resources and work engagement to employee performance and customer loyalty: The mediation of service climate', *Journal of Applied Psychology*, 90, 1217-1227.
- Salanova, M., and Schaufeli, W.B. (2008), 'A cross-national study of work engagement as a mediator between job resources and proactive behaviour', *International Journal of Human Resource Management*, 19, 116-131.
- Sanders, K., and Frenkel, S. (2011), 'HR-line management relations: characteristics and effects', *The International Journal of Human Resource Management*, 22, 1611-1617.
- Schaufeli, W.B., and Bakker, A.B. (2004), 'Job demands, job resources, and their relationship with burnout and engagement: a multi-sample study', *Journal of Organizational Behavior*, 25, 293-315.
- Schaufeli, W.B., Salanova, M., Gonzalez-Roma, V., and Bakker, A.B. (2002), 'The measurement of engagement and burnout: A two sample confirmatory factor analytic approach', *Journal of Happiness Studies*, 3, 71-92.
- Settoon, R.P., Bennett, N., and Liden, R.C. (1996), 'Social Exchange in Organizations: Perceived Organizational Support, Leader-Member Exchange, and Employee Reciprocity', *Journal of Applied Psychology*, 81, 219-227.
- Shaw, J.D., Dineen, B.R., Fang, R., and Vellella, R.F. (2009), 'Employee-Organization exchange relationships, HRM practices, and quit rates of good and poor performers', *Academy of Management Journal*, 52, 1016-1033.
- Snape, E., and Redman, T. (2010), 'HRM Practices, Organizational Citizenship Behaviour, and Performance: A Multi-Level Analysis', *Journal of Management Studies*, 47, 1219-1247.

Sobel, M.E. (1982), 'Asymptotic confidence intervals for indirect effects in structural equation models', in *Sociological Methodology*, ed. S. Leinhardt, Washington DC: American Sociological Association, pp. 290-312.

Som, A. (2008), 'Innovative human resource management and corporate performance in the context of economic liberalization in India', *International Journal of Human Resource Management*, 19, 1278-1297.

Sun, L.-Y., Aryee, S., and Law, K.S. (2007), 'High-Performance Human Resource Practices, Citizenship Behavior, and Organizational Performance: A Relational Perspective', *Academy of Management Journal*, 50, 558-577.

Tabachnick, B.G., and Fidell, L.S. (1996), *Using Multivariate Statistics*, New York: HarperCollins.

Tims, M., Bakker, A.B., and Xanthopoulou, D. (2011), 'Do transformational leaders enhance their followers' daily work engagement?', *Leadership Quarterly*, 22, 121-131.

Truss, C., Soane, E.C., Alfes, K., Rees, C., and Gatenby, M. (2010), 'Engaging the 'Pole Vaulters' on your staff', *Harvard Business Review*, 88, 24.

Truss, C., Soane, E.C., Edwards, C., Wisdom, K., Croll, A., and Burnett, J. (2006), *Working Life: Employee Attitudes and Engagement 2006*, Wimbledon: CIPD.

Vandenberg, R.J., Richardson, H.A., and Eastman, L.J. (1999), 'The impact of high involvement work processes on organizational effectiveness: a second-order latent variable approach', *Group & Organization Management*, 24, 300-339.

Walumbwa, F.O., Wang, P., Wang, H., Schaubroeck, J., and Avolio, B.J. (2010), 'Psychological processes linking authentic leadership to follower behaviors', *Leadership Quarterly*, 21, 901-914.

Wayne, S.J., Shore, L.M., and Liden, R.C. (1997), 'Perceived organizational support and leader-member exchange: A social exchange perspective', *Academy of Management Journal*, 40, 82-111.

Wright, P.M., and Boswell, W.R. (2002), 'Desegregating HRM: A Review and Synthesis of Micro and Macro Human Resource Management Research', *Journal of Management*, 28, 247-276.