New Clues for Analysing the HRM Black Box
New Clues for Analysing the HRM Black Box

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CHAPTER ONE
NEW CLUES FOR ANALYZING
THE HRM BLACK BOX:
AN INTRODUCTION TO THIS BOOK

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The field of human resources has undergone significant evolution as a scientific discipline during the last decades, and the growing conceptual and theoretical strength of the various approaches put forward has greatly contributed to this evolution.

The theoretical frameworks applied to the study of human resources management are undoubtedly vast and diverse. These range from those that find their support in the strictest rationality (economic rationality) to those that, on the contrary, explain the behaviour of individuals and organisations from decidedly non-rational positions based on, for example, sociological theories. Some approaches adopt a micro perspective, centred on the human resources management process and its effects at the individual level, while others consider it necessary to view human resources management as a system that is related to other organisational variables. Thus, some frameworks adopt an internal and closed perspective, against those that contextualise the management of human resources. All this conceptual diversity serves to illustrate the difficulty in explaining the role of human resources and the complexities implicit in the management of people working together in various kinds of organisations, and more specifically the existing links between the management of human capital and the functioning of the organisation - what it does and the outcomes of its activities.
In an attempt to contribute to the clarification and understanding of these issues, the first chapters presented in this book are theoretical reviews and approaches of differing degrees of abstraction to explain the connections between human resources management and the performance of the organization. Chapter Two is an overview of the theoretical advances and contributions of various paths of research that may help clarify the "black box" between HRM and performance (J. Paauwe and T. Blok); the third chapter deals with the importance of correctly implementing the processes of human resources management, and the role that the Human Resources Department can play in it (J. Trullen, J. Bonache, L. Stirpe and M. Valverde). In turn, the fourth chapter demonstrates how, in order to achieve the desired results from HRM, it is essential for these management practices to be interiorised and embedded in the whole organisation, because it is this integration that translates the effective management of individuals in an organisation into the achievement of its performance targets (M. Franco-Santos, M. Larraza-Kintana and M. Bourne). The debate on the effects that management systems based on both control and commitment have on the behaviours of individuals is presented in the fifth chapter; in particular, Aling, Wijngaarden, Paauwe and Huijsman show to what extent both types of management approaches are present depending on internal and external variables that influence the organisation of a number of Dutch hospitals.

Deepening into the relationship between human resources management and organisational performance, one of the topics to which much attention has been given is the effect that social networks and work groups have on the organisation's results. Knowledge of what happens at the intermediate levels of the organisation is what enables the link between individual behaviour and the organization. Following this path of research, Muñoz Doyague and Marqués Sánchez examine in Chapter Six to what extent the position occupied by an individual in a work group explains perception of the overall performance. This study also highlights the importance of establishing networks by means of which individuals can contribute to improving the results of their organisational units. The last two studies in this book are situated at the level of individual analysis, and deal with work satisfaction and contentment. Chapter 7 considers the effect of job satisfaction on the differences and disagreements between the organisation and employee with respect to the behaviours expected (Audenaert, Decramer and Vanderstraeten). Chapter 8 offers a construct for measuring individual contentment or happiness at work from three dimensions: engagement, job satisfaction and affective organisational commitment (Sálas, Alegre and Fernandez Guerrero).
All in all, these studies provide an accurate picture of topics and issues that are relevant today in the area of human resource management, by putting together different approaches and levels of analysis that undoubtedly enrich one another.

We would not wish to conclude this introduction without mentioning that the studies included in this book were considered the best papers (i.e., those with the highest scores from our referees) presented in the 9th International Workshop on Human Resources Management, held on October 30th-31st 2014 in Seville, Spain. The Workshop was organized by the Departments of Business Administration of two Spanish Universities, Pablo de Olavide University (Seville), and the University of Cadiz, with the aim of covering new key topics and research paths that should be attractive for any scholar working on the HRM field.

This Workshop, always celebrated on a biannual basis, has given participants the opportunity to discuss the most important issues regarding Human Resources Management since 1997, the year it was first convened. A number of prestigious international researchers working within the field of HRM from US and European Universities have been invited as keynote speakers, who have become an asset in each of these editions.

Previous Workshops have featured as guest speakers Professors from the USA, such as Michael Hitt (Texas A&M University), Randall Schuler and Susan Jackson (Rutgers University), Angelo DeNisi (Tulane University), David Lepak (Rutgers University), Anne Tsui (Arizona State University), John E. Delery (University of Arkansas, USA) and Luis Gomez-Mejia (Texas A&M University, USA). From Europe, previous guest speakers include Professors Michael Poole (Cardiff Business School), Paul Sparrow (University of Sheffield), Patrick Gunnigle (University of Limerick), Jaap Paauwe (Tilburg University), Paul Boselie (Utrecht University & Tilburg University, The Netherlands) and Wolfgang Mayrhofer (Vienna University of Economics and Business, Austria).

In the latest edition, held in Seville in 2014, Professors Riccard Peccei from Kings College (London) and Herman Aguinis, from Indiana University (USA) were the guest speakers. The participants included 75 professors and other university researchers from several Spanish and European Universities (e.g., Ghent, Tilburg, Twente, Saxion and Amsterdam VU, among many others).
Finally, we would like to express our gratitude to the authors of each of
the chapters in this book, and to Cambridge Scholars for granting us the
opportunity to disseminate them. We also appreciate the cooperation of
Pablo de Olavide University, as well as of the Assistant Professors Mirta
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CHAPTER TWO

UNRAVELING THE DIFFERENT BLACK BOXES: IN SEARCH OF THEORIES EXPLAINING THE BLACK BOXES BETWEEN HRM AND PERFORMANCE

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Abstract

Within a rapidly expanding field of study, the HRM–Performance relationship has been approached from a variety of perspectives. We start by discussing the achievements so far. This will show that there are still many challenges ahead in the form of missing elements, a lack of proper theorizing with respect to the concepts of HRM and Performance and a lack of insight into the underlying mechanisms and processes which could fully explain why HRM practices and systems might contribute to increased performance; aspects that will be later addressed in this chapter. Thirdly, we contribute to resolving this so-called 'black box', firstly by indicating the various levels of analysis which come into play when discussing the relationship between HRM and Performance. Subsequently, we link each level of analysis (including the individual, organizational and societal levels) to possible candidates for opening up the black box by describing theories that shed some light on to the underlying mechanisms. Finally, we assess all the potential theories based on the criteria proposed by Goudsblom (1974), which cover aspects such as preciseness, scope, systematic rigour and societal relevance, for judging the utility of scientific theories. The resulting ranking order indicates three possible 'winners', each on a different level of analysis.
2.1. Introduction

“Twenty years ago, Guest (1987) published his normative framework describing the essence of HRM. He presented HRM as a new approach to personnel management, emphasizing its strategic contribution, its closer alignment to business, the involvement of line management, and focusing on HRM outcomes like commitment, flexibility and quality. The achievement of these human resource outcomes was, in turn, expected to contribute to a range of positive organizational outcomes, including high job performance, low turnover, low absence and high cost-effectiveness through the full utilization of employees, now relabeled as human resources. Put this way, it is not difficult to understand the wide appeal that the notion of HRM had (and still has) to academics and practitioners alike. The attractiveness of the concept of HRM increased considerably when Huselid, in 1995, published a ground-breaking paper in the Academy of Management Journal in which he demonstrated a correlation between the degree of sophistication of HRM-systems and the market value per employee among a range of publicly quoted companies in the USA. The paper generated admiration, criticism and an abundance of ‘me too’ research, trying to replicate the proclaimed relationship between HRM and Performance (Delery and Doty 1996; Guthrie 2001; Koch and McGrath 1996; Wright et al. 2003). Since then many academics on both sides of the Atlantic have become active in this field, with a special focus on the relationship between HRM and Performance. Within this rapidly expanding field of study, the HRM–Performance relationship has been approached from a variety of perspectives rooted in organizational behavior, sociology, economics, industrial relations and organizational psychology, with a particular emphasis placed on the impact of various combinations of human resource practices on a range of performance outcomes at the individual and organizational level of analysis.” (Paauwe 2009, 129).

Below, we will first discuss the achievements so far (Section 2.2). Whereas one once had to rely on quoting a number of individual studies (see Paauwe 2004, 58-66), it is now possible to refer to a number of review studies that have been published since 2005. Indeed, quoting/summarizing individual studies is now hardly feasible because, since 1995, upward of 150 empirical papers have been published dealing with the issue of the relationship between HRM and Performance. This large number of publications reflects the prominence given to the field of HRM and Performance by academics, consultants and practitioners around the globe. Nevertheless, there are still many challenges in the form of
missing elements, a lack of proper theorizing with respect to the concepts of HRM and Performance and a lack of insight into the underlying mechanisms and processes that could explain why HRM practices and systems might contribute to increased performance. These aspects will be dealt with in Section 2.3. Following this, Section 2.4 attempts to contribute to resolving this so-called 'black box' by first indicating the various levels of analysis which come into play when discussing the relationship between HRM and Performance. Subsequently we link each level of analysis (the individual, organizational and societal levels) to possible candidates for opening up the black box by describing theories that can shed light on to the underlying mechanisms. We do this on the basis of an extensive literature search and by interviewing academics in the field of HRM/OB. Finally, in Section 2.5, we assess all the possible theories in terms of the criteria set by Goudsblom (1974), who distinguishes criteria such as preciseness, scope, systematic rigour and societal relevance for judging the utility of scientific theories. The resulting ranking order indicates three possible 'winners', each with its distinct level of analysis.

2.2. Achievements So Far

Initially, and especially in the UK, the discussion focused on the differences between HRM and personnel management, and on the implications of a unitarist and managerial approach to the management of people. Would HRM endanger the very existence of trade unions? Could it, as a normative construct, be characterized as being anti-union? Writers such as Guest, Storey, Purcell, Tyson and Keenoy were amongst the most active in this debate. The debate culminated in Karen Legge’s (1995) contribution, Human Resource Management: Rhetorics and Reality, which time has shown to be a classic in this field. Such debates hardly took place in the USA. On the contrary, in the USA, researchers were busy carrying out empirical research aimed at providing evidence for the role of HRM in generating added value. In this, they drew their inspiration from two competing would-be classics published in the mid-1980s. One was Beer et al.’s (1984) book that represented the more systems and stakeholder oriented Harvard approach to HRM; the other was Fombrun et al.’s book, also published in 1984, representing the more functional, managerial approach of the so-called Michigan school of HRM. The first systematic empirical studies of the HRM–Performance link were published in 1994 (Arthur 1994; Osterman 1994) and 1995 (MacDuffie 1995; Huselid 1995). Huselid’s study has been one of the most cited articles in this area and marked a turning point because, from then on, the dominant theme in
HRM research on both sides of the Atlantic became its relationship with performance. In the years that followed, many articles were published presenting evidence on the effects on performance, not only of single practices, such as personnel planning (Koch and McGrath 1996), performance-related pay (Dowling and Richardson 1997; Lazear 1996; McNabb and Whitfield 1997), training and development (Kalleberg and Moody 1994) and internal career possibilities (Verburg 1998), but also of bundles or combinations of HR practices (e.g. Arthur 1994; Guest et al. 2004).

In 1997, Paauwe and Richardson presented a summarizing framework that encompassed more than twenty different studies and which substantiated and corroborated the relationships, first, between a range of HR practices and important HRM outcomes, such as satisfaction, motivation, turnover, absenteeism and commitment and, second, between these outcomes and more general organization-level performance outcomes such as productivity, quality, R&D, customer satisfaction, sales, profit and market value. In the same year, Guest (1997) published an article on the need for more theory-driven research, arguing that better theory was needed with respect to HRM (what do we mean by it), to performance (what kind of performance and at what level of analysis) and on the linkage between the two. This discussion was paralleled in the USA by academics including Wright, Gardner, Becker and Gerhart, and culminated in what became known as the ‘black box’ problem: what are the key intervening variables and constructs that link HRM practices and policies to the bottom-line performance of a firm? Guest (1997) himself, and others including Becker et al. (1997) and Wright and Gardner (2001), contributed by developing frameworks which included up to six additional variables, such as employee skills, motivation, creativity and discretionary effort, as intermediate (i.e. mediating variable) boxes. This line of reasoning was later extended to claim a need for multilevel analyses in order to adequately account for variables on both the organizational and individual levels of analysis (see, for example, Ostroff and Bowen 2000 in Klein and Kozlowski 2000).

As such, there is little doubt that, in the past twenty years, some progress has indeed been made in the analysis of the relationship between HRM and Performance. On balance, however, this progress has been only modest. This is reflected in the rather mixed and generally somewhat cautious conclusions drawn in the major review articles that have appeared in the last two decades. Becker and Gerhart, writing in 1996, noted that the conceptual and empirical work relevant to answering this question (the
contribution of HRM to organizational performance and competitive advantage) had progressed sufficiently to be able to claim that the role of human resources could be crucial. Similarly, Paauwe and Richardson (1997), based on an early review of 22 studies, concluded that HRM activities give rise to HRM outcomes that will influence the performance of the firm. More specifically, Huselid and Becker (2000) indicated that the effect of a one standard deviation change in the HR system is a 10–20 per cent increase in a firm’s market value. However, on a more cautious note, Wright and Gardner (2003), reflecting on the available evidence a few years later, concluded that HR practices are only weakly related to firm performance. Below we discuss a number of more recent and substantial reviews that have been published since 2005.

2.2.1. Review studies

An early notable example in this period is the review by Boselie, Dietz and Boon (2005) who analysed a comprehensive sample of 104 studies published in HRM journals, general management journals and industrial relations journals over the period 1994-2003. They explicitly focussed on papers that reported empirical research and which included multiple HRM practices and some measure of performance. As such, their focus was on strategic HRM, in which 'HRM is conceptualized in terms of carefully designed combinations of such practices geared towards improving organizational effectiveness and hence better performance outcomes' (Boselie et al. 2005, 67). Based on their analysis of these papers, they concluded that much, though by no means all, of the empirical HRM research into its ‘systems’ form had shown that HRM has a positive influence on organizational performance.

The second study we discuss here was published in the same year by Wall and Wood (2005). Based on a selection of 25, mainly American, so-called high-quality studies, Wall and Wood (2005) were even more cautious when it came to concluding that the evidence showed a positive effect of HRM on performance - although indications were promising, the evidence was only circumstantial, due in the most part due to an inadequate research design. While 19 of the 25 studies they examined reported some statistically significant positive relationships between HR practices and performance, the effect sizes were typically small. Further, the majority of studies had failed to pay adequate attention to whether it was the HRM system (the ‘gestalt’) that generated the effects or just specific component/individual practices (p.453). Overall, therefore, they
concluded that ‘the existing evidence for a relationship between HRM and performance should be treated with caution’ (Wall and Wood 2005, 454).

The third study we now include in this overview is the one by Combs, Liu, Hall and Ketchen (2006). Whereas the two studies outlined above are review studies, this one is a genuine meta-analysis in which all the evidence is statistically aggregated. Here, the authors use meta-analysis to determine whether High Performance Work Systems (HPWSs), as a bundle of HRM practices, have a greater impact than individual practices and if HPWSs are more effective in manufacturing than in service settings. Their meta-analysis included 92 recent studies (encompassing almost 20,000 organizations) on the HRM–firm performance relationship and found that an increase of one standard deviation in the use of high-performance work practices (HPWPs) is associated with a 4.6 per cent increase in return on assets and with a 4.4 percentage point decrease in staff turnover. On this basis, they concluded that ‘HPWPs’ impact on organizational performance is not only statistically significant, but managerially relevant’ (Combs et al. 2006, 518). They also established that systems of high performance work practices do indeed have a stronger effect than individual HRM practices. Three practices seemed to have no effect at all: performance appraisals, working in teams and information sharing. The non-effect of the first of these is especially surprising and one possible explanation could be its ritualistic and/or bureaucratic nature. The effect size found among manufacturers was almost twice as large as among service providers. One reason for this greater effect is that manufacturers’ dependence on complex machinery and concomitant standardized procedures means that HPWPs can help maximize adaptation to environmental change. Another reason why HPWPs affect manufacturers more is that the full range of productive outcomes are largely under the control of manufacturers, and thus potentially influenced by HPWPs, whereas production outcomes among service providers are heavily influenced by customers’ ability and willingness to participate (Bowen 1986). Customers, especially of services, therefore limit the range of possible productive outcomes that can be influenced by HPWPs (Combs et al. 2006, 520).

Our fourth study, Subramony (2009), is also a meta-analysis (covering more than 30,000 organizations) and focuses on three different bundles of High Performance Work Systems, with the aim of testing the value of bundling HRM practices on the basis of their empowerment-, motivation- and skill-enhancing effects (see below). In this, we can see the so-called AMO theory. In total, 65 empirical studies (and 239 effect sizes) were
included that were published from 1995-2008 and that linked HRM practices and HPWSs with business outcomes.

**The content of HRM Bundles**

**Empowerment-Enhancing Bundle**
- Employee involvement in influencing work process/outcomes
- Formal grievance procedure and complaint resolution systems
- Job enrichment (skill flexibility, job variety, responsibility)
- Self-managed or autonomous work groups
- Employee participation in decision-making
- Systems to encourage feedback from employees

**Motivation-Enhancing Bundle**
- Formal performance appraisal process
- Incentive plans (bonuses, profit-sharing, gain-sharing plans)
- Linking pay to performance
- Opportunities for internal career mobility and promotion
- Healthcare and other employee benefits

**Skill-Enhancing Bundle**
- Job descriptions/requirements generated through job analysis
- Job-based skills training
- Recruiting approaches that ensure large applicant pools
- Structured and validated tools/procedures for personnel selection


Subramony (2009) established that these three compact bundles have significant and positive relationships with outcomes such as retention, operating performance and financial performance. Moreover the three bundles correlated more strongly 'with business outcomes than their constituent practices' (Subramony 2009, 753), supporting the conclusion by Combs et al. (2006) that bundles/systems have a stronger effect than their individual component HR practices. In a similar vein, Subramony also concluded that the studies conducted in manufacturing show significantly larger effect sizes than those based on samples from the service sector. Subramony also took account of the sources of information (same source vs. different source) and found that 'the predictor-outcome ratings coming from the same source (\(\rho = .44\); 95% CI: .39; .50) were significantly larger in magnitude (\(Z = 3.43\); \(p < .01\)) than those in which
these ratings came from separate sources’ (2009, 756). This finding suggests issues with common method bias.

The fifth and final study included in this overview is Jiang, Lepak, Hu and Bear (2011). As the title of this study (How does HRM influence organizational outcomes? A meta-analytic investigation of mediating mechanisms) indicates, they have looked for mechanisms linking the three dimensions of HRM systems (again reflecting AMO) to both proximal (human capital and motivation) and distal outcomes (turnover, operational performance and financial performance). By including human capital and motivation as mediating variables, or intermediate outcomes, they hoped to reveal more about the underlying mechanisms through which HRM is associated with several organizational outcomes. As Subramony (2009), they conceptualize HRM practices as falling into three distinct dimensions: skill enhancing, motivation enhancing and opportunity enhancing. Skill enhancing implies strengthening human capital, and motivation enhancing implies increasing employees’ motivation. On this basis, these two aspects were selected because they are 'the most critical mediating factors' (Jiang et al. 2011, 1267). By distinguishing distinct sets of HRM practices, they also expected to shed more light on differential outcomes; for example, that skill-enhancing practices would mainly impact on human capital and to a lesser degree on motivation. Their study included 116 papers whose studies involved more than 30,000 organizations. They found that all three HRM dimensions have significant and positive effects on human capital and motivation and, as hypothesized, skill-enhancing HRM practices explained the largest percentage of the variance in human capital. When it came to motivation, it was the other way around: motivation-enhancing and opportunity-enhancing HRM practices had a significantly greater effect on motivation than the skill-enhancing set.

Summarizing, we can conclude – as did the above-mentioned authors and paraphrasing Wright and Gardner (2003, 312) – that, over the course of two decades, the evidence has mounted that firm performance is related to HR practices, either individually or bundled in a system. Nevertheless, there are still significant methodological and theoretical challenges with regard to furthering our understanding of this relationship. Some of these challenges are highlighted in the following section.
2.3. In Search of Underlying Mechanisms and Processes

Despite the overwhelming evidence (at least in terms of the number of studies) presented, many authors are still highly critical of HRM in general and of the HRM–Performance relationship in particular (see Keenoy 1997; Legge 1995/2005; and the overview by Keegan and Boselie 2006). Hesketh and Fleetwood (2006, 678), for example, concluded that ‘empirical evidence for the existence of an HRM–Performance link is inconclusive and a statistical association in, and of itself, constitutes neither a theory nor an explanation’. Guest had already highlighted this problem in 1997 by indicating concerns that the relative absence of theory seriously inhibited a fully convincing interpretation of empirical findings: 'If we are really to improve on our understanding of the impact of HRM on performance, we need a theory about HRM, a theory about performance and a theory about how they are linked' (Guest 1997, 263). More recently, Boxall, Ang and Bartram (2011) have argued that we need to bring the multiple goals of HRM to the surface and then assess their linkages to employee perceptions and relevant business outcomes (p. 1529). In the following sections, the focus will be on theories that are capable of providing the necessary linkages and shedding light on the underlying mechanisms.

2.3.1. Theoretical Perspectives on the HRM–Performance Relationship

The overview by Boselie et al. (2005) provides some answers in terms of the underlying process between HRM and performance, albeit not conclusively. Analysing the content of 104 empirical articles, they concluded that the three most commonly used theories are contingency theory, the Resource Based View (RBV) and the AMO framework. Further, they made a case for not focusing on one underlying mechanism since this would not be sufficient because the three theories do not all relate to the same level of analysis. Whereas both contingency theory and the RBV are situated on the organizational level, the AMO framework focuses on the importance of accounting for individual-level variables such as employees’ skills and competences (A = abilities), their motivation (M = motivation) and their opportunities to participate (O = opportunities). Boselie et al.’s review paper is a good example of the recognition of the need to distinguish between different levels of analysis.
Another good example of this is the paper by Wright and Boswell (2002) who strongly advocate breaking down the barriers between what they call macro- (or strategic/societal) HR research (reflecting the more organizationally focused examination of HRM), and micro-level research, reflecting a more functionally oriented view of HRM and focusing specifically on the effect on individuals of single or multiple practices. This implies a need to apply multi-level techniques such as repeated measures regression and hierarchical modelling (see Klein and Kozlowski 2000; Wright and Boswell 2002, 266). The concept of the psychological contract can also be used to combine the different levels of analysis as convincingly demonstrated by Rousseau (1995), Guest (1999) and Schalk and Freese (2011).

2.3.2. Employees return to centre stage

Eventually, it is employees who are the primary recipients and consumers of HRM (Mabey et al. 1998) and they have their own interpretations of its underlying meaning. Guest (1999) demonstrated this by presenting the results of a survey showing how the number of HR practices and the consequent presence of a high involvement climate resulted in workers reporting a more positive psychological contract and, in turn, greater satisfaction, job security and motivation, as well as lower levels of pressure at work (Guest 1999, 22). Following this line of reasoning, Wright and Nishii (2004) built a strong argument for making clear distinctions among intended HR practices (those designed on the strategic level), actual HR practices (those implemented by, for example, direct supervisors) and perceived HR practices (those perceived by employees).

Bringing employees back into the equation between HRM and various individual- and organizational-level outcomes, including financial performance, is essential if one is to advance the field as a respected discipline. It would also be a way of effectively responding to the criticisms of theorists such as Legge (1995), Keenoy (1997) and Fleetwood and Hesketh (2010) about the exclusively (or overtly) managerialist focus of much of the work on HRM.

2.3.3. From simple to complex

In essence, the field with respect to theories linking HR to performance has advanced from rather simplistic models in the 1990s, in which HR
practices were simply shown or assumed to correlate directly to rather distant indicators of financial performance, to far more advanced ways of theorizing and modelling the relationships of interest. Central to these more sophisticated ways of thinking about the relationship between HRM and performance is the idea that organizational-level HR practices affect the attitudes and behaviours of employees on the individual level and that these, in turn, affect key aggregated behavioural or HR outcomes such as labour productivity and turnover that, subsequently, might impact on organizational or firm-level outcomes. Such an approach clearly involves multilevel theorizing in that it explicitly seeks to link phenomena across different levels of analysis, from the organizational level (e.g. systems of HR practices) to the individual level (e.g. employee satisfaction and performance), and back again to the organizational level (e.g. organizational productivity and firm financial performance). Such multilevel theorizing clearly needs to be accompanied by complex forms of multilevel analysis that control for a wide range of contingencies. Undoubtedly, there is still much work that needs to be done both in terms of theorizing the HRM–Performance relationship and in terms of testing more complex theoretical arguments using more appropriate multilevel methodologies. Below, we make a modest contribution to this goal by distinguishing various levels of analysis, and thus different black boxes, and subsequently undertaking a literature search and interviewing experts in order to explore and search for theories that shed light on the underlying mechanisms and processes.

2.4. HRM and Performance: Opening the Black Box

As the previous sections make clear, we need to understand the underlying mechanisms that enable HRM to contribute to better performance. The HRM discipline is not restricted to one particular level of analysis and so, if we want to say something about the relationship between HRM and performance, we have to distinguish between the societal, organizational and individual levels of analysis and, hence, there will be different ‘black boxes’ that explain the generic principle. These ‘black boxes’ are depicted in Figure 1.
Wanting to unravel the black boxes between HRM and performance on different levels of analysis, the following question arises: *Which theories are available as possible candidates for analysing and unravelling the black box between HRM and performance?*

Before explaining the ‘black boxes’ and searching for possible candidates to expose their contents, we must first define the levels of analysis that we will take into account. The macro-, or societal, level of analysis is concerned with issues outside the organization and the influence of the organization’s context. The meso-level of HRM relates to the impact of HR practices on the organizational level. Finally, the micro-level of HRM is closely related to Organizational Behaviour and Occupational Health psychology and focuses on individual employees and their attitudes and behaviours (Wright and Boswell 2002). Below, we highlight the various black boxes and the related levels of analysis while, at the same time, giving indications (based on our literature search and reflections by four academics/researchers in the field of HRM who can be considered as representing the different levels of analysis) of useful theories, which can help to solve the black boxes.

### 2.4.1. Black box 1 (societal level of analysis)

Organizations deal with their context on a daily basis and it is important they are aware of any changes in the organizational context. Decisions made on the organizational and national (governmental decisions) levels will influence the shaping of the HRM strategy. In other words, it is important to create an HR strategy that is consistent with other aspects of the organization in order to create a competitive advantage and improve organizational performance. Contingency Theory, Porter's five
forces model and Institutional theory are the main theories that explain these processes on the macro-level of analysis and, as such, can contribute to unravelling the black box on this level of analysis. For example, Porter (1985), with his environmental fit theory, was one of the first to argue that firms should analyse their competitive environment and identify an adequate strategy. He developed a five forces factor model that describes the attributes that make an industry attractive and states that if your company relies on these attributes than the opportunities will be greater and the threats will be less. More recently, Paauwe (2004) developed the Contextually Based Human Resource Theory (Paauwe 2004) that depicts different dimensions and forces (PMT/SCL/dominant coalition) that can influence the shaping of HR. Additional information on the various theories is provided in Appendix 1.

2.4.2. Black box 2 (organizational level of analysis)

The second relationship between HRM and performance manifests itself on the organizational level and concerns issues between HRM and organizational performance. It could be that HRM influences organizational performance directly, and does not need to follow the lower individual-level route shown in Figure 1 (Boselie et al. 2005). Theories that directly link HRM to organizational performance and included in this literature review are the Resource Based View (Barney 1991), AMO theory (Appelbaum 2001), Strategic Climate Theory (Schneider 1990) and the Human Capital Theory (Becker 1964). These theories cannot be placed on one particular level of analysis because theories like the Strategic Climate Theory and Human Capital Theory make a connection between the micro- (black box 4) and the meso- levels (black box 2) of analysis. As a more specific example, the Strategic Climate Theory argues that the organizational climate in your organization will influence the attitudes and the behaviours of your employees, and vice versa, and that this is an essential link to the individual level of analysis. As such, the strategic climate in an organization only exists through the shared perceptions of its employees.

2.4.3. Black box 3 (connecting the organizational and individual level of analysis)

The literature contains many theories relating to the individual level of analysis. This level is particularly focused on sending the right HRM signals towards employees and, in this way, affecting their attitudes in
such a way that they are willing to deliver the ‘desired’ behaviours and HRM outcomes in return (black box 3). For example, if an organization’s HR policies state that employees can have flexible work arrangements, and if they appreciate this, their attitude will be positive towards HRM (and to the HR manager and the organization). These processes are all based on exchange-related theories such as the Reciprocity Theory (Gouldner 1960), Leader-Member Exchange Theory, Perceived Organizational Support, and Equity Theory. In searching for an overarching theory to explain these processes, one will end up back at Social Exchange Theory (Blau 1964). Indeed, in an overview by Peccei et al. (2013) many processes are similarly explained using Social Exchange Theory.

2.4.4. Black box 4 (individual level of analysis)

Black box 4 represents a mechanism that occurs solely on the individual level without any interaction with the organizational level. To understand this construct, one can turn to the Organizational Behaviour literature, which is an important source of inspiration in unravelling the underlying mechanisms and processes on this level. We argue that this black box concerns the processes that go on in the human mind that could be affected by HRM tools. Explanations of how this construct works can be found in Organizational Justice Theories (Colquitt, Conlon, Wesson, Porter and Ng 2001), Attribution Theory (Heider 1958), Psychological Contract Theory (Rousseau 1989), Broaden and Build theory (Fredrickson 2001) and Social Contagion Theory (Locher 2002). These theories help make sense of what is going on by making the underlying processes more explicit by explaining some of the relationship between employee attitudes and HR outcomes. This line of reasoning is strengthened by Attribution Theory which explains the common idea that people interpret behaviour in terms of its cause, and that these interpretations play an important role in determining reactions/attitudes to those kinds of behaviours.

2.4.5 Black box 5 (connecting the individual level to the organizational level)

This part of our framework is the least clear and least developed part of the entire model. Although this black box can be discussed briefly, the processes linking individual employees to organizational performance have received relatively little attention from HRM researchers. Twenty years ago, the focus was very much on individual-level theories and on
macro-level theories without much effort put into connecting these two levels. However, it is now technically possible to empirically test the linkages between these two levels. One theory that could explain a part of this linkage is the concept of Relational Coordination (Gittel 2001). This theory argues that performance significantly benefits from strong group processes. It is not just the management of interdependent tasks, it is also managing the interdependence between the people performing those tasks that can enhance organizational performance. Relational coordination theory can be applied on the micro- and meso-levels and everywhere between. The power of network constructs, such as relational coordination, is in their multilevel and nested design. Seidned and Wimbush (2010) have shown that relational coordination influences group processes and performance in an organization.

2.5. Evaluating and Assessing the Utility of the 'Candidate' Theories for Opening the Black Boxes

Our quest for appropriate theories that could contribute towards analysing and explaining the black boxes between HRM and performance is almost at an end. Various black boxes at different levels of analysis have been described and existing theories have been identified that can be used to examine the underlying processes in each black box. Now, we need to evaluate this set of theories and assess their utility. The question that remains is “which theories can adequately explain the generic principles at each level of analysis?” Unfortunately, there is a lack of agreement as to how to determine whether a theory or model is sufficient (Sutton and Staw 1995). While scholars have sought uniform guidelines that anyone could follow, the ultimate determination of what is a good theory is not based on objective meanings but on persuasive argumentation by researchers (Ferris, Hochwarter and Ronald 2012). As such, the process of building and judging theories is confusing, and it is difficult to develop a shared appreciation of a theory if scholars do not agree with each other. Fortunately, Goudsblom (1974) offers a helping hand.

In his book, Goudsblom (1974, 18) specifies four requirements that all scientific theories should satisfy. The first one is preciseness and fact-finding, and here he is referring to the observation of reality: is the theory accurate and does the degree of detail observed meet reality? Goudsblom states that a theory should have a certain amount of precision, here again referring to the observation of reality. Is the research design sufficiently
precise and what about the methodology? Is there a sufficient degree of
detail in the observation of reality? Social research should not only be
precise, it should also have a specific scope, which constitutes the second
requirement. This concerns whether the model covers all aspects of the
topic in hand and also the external validity of a study: does it embrace all
the aspects that the members of an organization are dealing with (a large
scope) or only a few aspects (a limited scope)? The third criterion is
labelled ‘systematic theory building’ or ‘systematic rigour’. Beliefs from
the natural sciences play a key role in this criterion: ideas must be verified,
based on methodological reasoning. A theory should explain a certain
phenomenon and have room for new observations that can better
understand the social world. In short, a theory should be logical and a
consistent construction whilst not losing its significance. The final
criterion is all about societal relevance: is the theory relevant in the
societal context? That is, what is the utility of a certain theory and how
does it contribute to solving problems occurring in our society or in a
specific organization?

The experts interviewed for this study received, in a later stage of the
research, a table of theories (see Appendix 2.2) with the request to rate and
evaluate each theory on the extent to which it met Goudsblom’s (1974,18)
criteria. Each rating given by the experts was converted to a numeric scale
(+ = 2, +/- = 1, - = 0) such that a weighted average could be calculated and
the theories achieving the highest scores determined. In this way, we could
identify those theories that come closest to satisfying the criteria set by
Goudsblom. Below we highlight the ‘winners’ at the various levels of
analysis.

Of the societal level theories, the environmental fit theory developed
by Porter (1985) was rated as best in terms of meeting all the criteria (µ
=1.556), closely followed by contingency theory (µ =1.333) and
institutional theory (µ =1.272).

Turning to the organizational level, those experts who recognized the
human capital theory rated it the most highly (µ =1.544) although it should
also be noted that some experts did not know this theory. With µ =1.313,
the strategic climate theory also met the criteria sufficiently well.
Interestingly, the AMO theory, which was one of the most popular
theories in the literature review by Boselie et al. (2005), the weighted
average in our expert review is only µ = 1.187.
Social exchange theory is seen as an overarching fundamental theory and has often been applied in the Organizational Behaviour and HRM field. It is a theory that aims to explain the underlying principles in the process linking the organizational level to the individual level. The importance of this theory is also reflected in the expert’s scoring with $\mu = 1.625$. Both expectancy theory ($\mu = 1.563$) and equity theory ($\mu = 1.500$) were also judged as well meeting the criteria for a good theory.

To summarize, we have presented an overview of a wide range of possible theories for application at certain levels of analysis plus inclusive theories that provide linkages between the different levels of analysis. Based on a limited and provisional assessment by experts, we have also been able to give an indication of their use. At the societal level of analysis, the environmental fit theory of Porter (1985) plays an important role and was highly rated by our experts. On the organizational level of analysis, the Resource Based View and the AMO theories have a high impact although the rigour of the latter was questioned by our panel. Turning to the individual level of analysis, it seems that many of the theories used to explain the attitudes and behaviours of individuals in an organization are based on the norm of reciprocity, which is the underlying principle of social exchange theory.
# Appendix 2.1. Theories considered in this paper (additional details below)

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