



**Lancaster University**  
**MANAGEMENT SCHOOL**

**Lancaster University Management School**  
**Working Paper**  
**2006/039**

**Theorising under-theorisation in research on the HRM -  
performance link**

Steve Fleetwood and Anthony Hesketh

The Department of Organisation, Work and Technology  
Lancaster University Management School  
Lancaster LA1 4YX  
UK

© Steve Fleetwood and Anthony Hesketh  
All rights reserved. Short sections of text, not to exceed  
two paragraphs, may be quoted without explicit permission,  
provided that full acknowledgement is given.

The LUMS Working Papers series can be accessed at <http://www.lums.lancs.ac.uk/publications/>  
LUMS home page: <http://www.lums.lancs.ac.uk/>

## Theorising Under-theorisation in Research on the HRM – Performance link

Steve Fleetwood & Ant Hesketh

*Abstract.* Research claiming a measurable link exists between HR practices and organizational performance is recognised to be under-theorised. Appropriate theory is unlikely to emerge and develop by researchers doing more, and/or better, empirical work. The current unwillingness to reflect on meta-theory, coupled with the preoccupation with empirical techniques, does nothing to encourage the development of theory. Our meta-theoretical reflection, especially upon the nature of theory, permits a working definition of theory and illuminates the further problem that research lacks explanatory power. Under-theorisation and lack of explanatory power manifest themselves in the Black Box problem and the problem of measurement without theory. We consider the work of three sets of writers who have explicitly attempted to identify theories that might provide the requisite theoretical insights.

### Introduction

Whilst many empirical researchers claim to have identified a measurable link between an organizations' HRM practices and its performance<sup>1</sup> (hereafter the HRM-P link), some have explicitly recognised that *research on the HRM-P link is under-theorised*.<sup>2</sup> Some have tried to solve the problem by identifying theories that might, with some work, provide the requisite theoretical insights. Most, however, appear to believe that *appropriate theory or theories will emerge and develop if researchers continue doing more, and/or better, empirical work* - as the following two examples illustrate:

Although theory development is critical to the development of a discipline, a proliferation of theories and concepts can impede the accumulation of knowledge. *Researchers should focus as much attention on generating a cumulative body of accurate and meaningful estimates of effect sizes* as on generating new concepts and theories (Becker & Gerhart 1996: 777, emphasis added).

To *understand* as opposed to *measuring* the performance, we need to make these linkages. There may be an association between HRM practices and company profit, but without some linkages, we will not know why: we have no theory. *This implies that we need a range of types of performance measures* (Guest 1997: 267, emphases added).

Unfortunately, the outpouring of research over the last decade has generated far more empirical heat than theoretical light<sup>3</sup> and, moreover, the few attempts to identify theories that might provide the required theoretical insights (see below) have made very little headway. Research on the HRM-P link appears badly placed to overcome the problem of under-theorisation.

It is our belief that this worrying state of affairs is caused by a preoccupation with quantitative research techniques coupled with, and perhaps encouraged by, an almost total lack of *meta-theoretical reflection*.<sup>4</sup> Indeed in a recent survey of 467 articles on HRM, Hoobler & Brown Johnston not only found just *one* article on meta-theory, they also found that: 'statistical regression was by far the method of choice, represented in a full 35 percent of the articles studied. Various analysis of variance and meta-analysis accounted for 9 percent and 5 percent respectively, while correlation and structural equation modeling or confirmatory factor analysis respectively amounted to 6 percent and 3 percent' (2005: 668). It seems highly unlikely that the problem of under-theorisation, a problem rooted in meta-theory, will be resolved by continuing to neglect meta-theory. And this brings us to our paper.

*This paper is (to date anyway) the only attempt to engage in the kind of meta-theoretical reflection missing from research on the HRM-P link.* It aims to demonstrate (a) theoretical underpinnings will *not* emerge and develop simply by doing more, and/or better, empirical work; (b) meta-theoretical problems besetting the paradigm are far worse than is usually recognised; and (c) attempts to borrow theories from elsewhere (within HRM and from other disciplines) has not been successful. Part 1 of the paper reflects upon, and defines, 'theory', focusing upon two important dimensions: prediction and explanation. Part 2 demonstrates that whilst research on the HRM-P link can sustain a commitment to prediction, it cannot sustain a commitment to explanation, so that under-theorisation and lack of explanatory power go hand in hand. These problems manifest themselves, further, in the 'Black Box' problem and the problem of 'measurement without theory.' Part 3 tackles the possibility that research on the HRM-P link might actually have a theory, but we have not spotted it because it lies either outside the HRM-P paradigm, or perhaps in a completely different field such as economics. The final part considers the work of three sets of writers who have explicitly attempted to identify theories that might, with some work, provide the requisite theoretical insights lacking in research on the HRM-P link.

Before getting down to cases, we feel the following point should be made. A paper that is highly critical of a paradigm, as this paper is, is bound to run into charges of being 'merely negative.' Theoretical critiques, according to Whetten (1989: 494) 'should propose remedies or alternatives...consequently, critics should share responsibility for crafting improved conceptualizations.' Whilst this is, in many respects, wise council, taken without reference to context, it could simply act as a gate-keeping device, inadvertently keeping criticism at bay, especially criticism aimed at the very basis of a paradigm. To be asked to present a critique that is sophisticated enough to be at least plausible, *and then be asked to provide an alternative as well*, is simply asking too much of one paper. Indeed, because we are committed to thinking these problems through carefully, we have written another two papers in this critical vein (F & H 2006b, H & F 2007a), and a

third in a positive vein (H & F 2006a). We are also currently engaged in writing a book on critiques and alternatives (F & H 2007b).

### 1. Reflections upon the nature of 'theory'

Apart from Wright & McMahan, the literature on the HRM-P link<sup>5</sup> contains no reflection upon, or definition, of 'theory,' so we turned to wider management literature for a starting point.

Theories, if accurate, fulfil the objectives of prediction (knowledge of the outcome) and understanding (knowledge of the process) regarding the relationships among the variables of interest. Thus, a good theory enables one to both predict what will happen given a set of values for certain variables, and to understand why this predicted value should result (Wright & McMahan, 1992: 296).

[A] complete theory must contain...[these]...essential elements...(i) *What*. Which factors (variables, constructs, concepts) logically should be considered as part of the explanation... (ii) *How*. Having identified a set of factors, the researchers next question is, How are they related... (iii) *Why*. What are the underlying psychological, economic or social dynamics that justify the selection of factors and the proposed causal relationships?...To summarize thus far: What and How describe; only Why explains. What and How provide a framework for interpreting patterns...in our empirical observations. This is an important distinction because data, whether quantitative or qualitative, characterize; theory supplies the explanation for the characteristics... Combining Hows and Whats produces the typical model, from which testable propositions can be derived. (Whetten 1989: 490-1, numbers added).<sup>6</sup>

Whilst this literature is often ambiguous, a rough consensus seems to be evident to the effect that a theory has two dimensions: predictive and explanatory.

- i) *Predictive dimension of theory*. A theory consists of statements that deliver predictions in terms of relations between events. When theory predicts, it does so by asking 'What' and 'How' questions.
- ii) *Explanatory dimension of theory*. A theory consists of statements that deliver understanding, a specific form of which is explanation. When theory explains, it does so by asking 'Why' questions and answering them by delving into the underlying causal mechanisms and processes in operation.

From this consensus the following definition seems to emerge: ***a theory consists (minimally) of statements that deliver predictions in terms of relations between events; and statements that deliver explanation in terms of the causal mechanisms and processes responsible for generating these events.***

### ***Prediction and explanation***

Armed with this working definition of theory, let us move straightaway, via just one example, to assert the *uncontentious* claim that research on the HRM-P link *does* have theory, at least in terms of the predictive dimension of theory.<sup>8</sup>

To estimate the practical significance of the impact of High Performance Work Practices on productivity, I next calculated the impact of a one-standard deviation increase in each practice scale on...net sales...The findings indicate that each one-standard-deviation increase raises sales an average of \$27,044 per employee (Huselid 1995: 658).

A one-standard deviation increase in such practices is associated with a relative 7.05 percent decrease in turnover and...\$27,044 more in sales and \$18,641 and \$3,813 more in market value and profits respectively (667).

This study also provides one of the first *tests of the prediction* that the impact of High Performance Work Practices....(636 emphasis added)

Turning now to the explanatory dimension, we can find nothing in the literature on the HRM-P link that would pass muster as an adequate explanation – although we encourage the reader to digest part three below passing judgement on this point. It is important to understand that *whatever the merits* of formulating, and testing, hypotheses and predictions, this process cannot generate explanation. *Prediction is not explanation* as is often assumed. Indeed, it may be possible to predict without explaining anything at all. Whilst doctors can predict the onset of measles following the emergence of Koplic spots, the latter do not explain measles. Whilst empirical researchers (claim to) predict improved organisational performance following the creation of certain HR practices, the latter do not explain the increased performance. Put slightly differently, *a regression equation, even one with good predictive power, has no explanatory power*.<sup>9</sup>

Now, this under-theorisation and lack of explanatory power, manifest in two (related, but not identical) problems, namely:

***The Black Box Problem.*** Because explanation resides in one of the dimensions of theory, research that lacks theory also lacks explanation and is, thereby, guilty of treating the workplace as a “Black Box”. The sub-title of Purcell *et al* (2003), *Unlocking the Black Box*, reflects this concern.

***The problem of measurement without theory.*** Research that lacks theory also lacks an *adequate* rationale for the choice of phenomena that will eventually become the variables and is, thereby, guilty of ‘measurement without theory’.

We hope, at this point, to have at least raised the possibility that the problems besetting research on the HRM-P link might be far deeper than is usually admitted. In order, however, to push our critique further, we need to show that theory cannot be obtained from outside the HRM-P literature.

### 3. In search of theory to underpin research on the HRM-P link

Some researchers attempt to provide a rationale for their selection of variables; others attempt to offer a theory in terms of the causal mechanisms and processes involved in the HRM-P link; and some point to literature where such a theory might be found, often outside the field or even the discipline. Let us explore these possibilities.<sup>10</sup>

#### *Reference to selection of variables and /or provision of theory*

Although occasionally a rationale for the selection of variables, and/or an attempt to offer a theory is offered, the real question is this: *Is the rationale and/or theory adequate?* The weasel word here is, of course, 'adequate'. We fully accept that stating what counts as *adequate* is context dependent and requires judgement. We also recognise that demanding *adequacy* carries the possibility (irrespective of how remote) that every rationale and/or theory could be rejected as *inadequate*. Yet without such a caveat, any old comment could be passed off as a *bone fide* rationale and/or theory: clearly, not anything can pass muster.

To give some idea of where we draw the line, we would consider the decision to include a set of variables solely on the grounds that they just happen to bulk large in the literature to be inadequate. To exemplify: Batt (2001:10) 'included five types of supportive HR practice' because they are suggested by 'prior literature;' Ahmad & Schroeder (2003: 20) base their selection on Pfeffer's 'seven HRM practices that are expected to enhance organizational performance;' and Wan, Kok & Ong (2002: 34) 'decided to test six strategic HRM variables that have been consistently identified in the literature as proactive HRM practices.'

We also consider the inclusion of a couple of sentences offering a rationale and/or theory of the causal mechanisms and processes that govern any alleged empirical link to be inadequate. Laursen (2002) is a good case to consider not only because, at least at face value, he offers both of these things, but also because his work can be considered 'best practice.' In two pages, he aims to 'lay out, in general terms, some of the links' between HRM practices and performance. We cannot go through all two pages, so let us consider one of the variables he chooses; teamwork (TEAM). Teamwork, he suggests, can improve innovative activity because:

Team practices, involving job-rotation are likely to provide coordination advantages in the sense that engineers (or 'workers') perform several tasks and therefore understand the technological problems of colleagues better. ... Teams often bring together knowledge and skills which – prior to the introduction of teams – existed separately, potentially resulting in incremental process and product improvements. [...] Thus there are reasons to expect that the adoption of new HRM practices leads to better innovation performance. ... For example, rewarding shop-floor employees for minor process improvements is likely to increase such incremental innovation activity. ... Thus we would expect many new HRM practices to work well ... only if accompanied with new, typically more incentive-based remuneration schemes. In general and on *a priori* grounds, new HRM practices should be expected to be most conducive to innovation performance when adopted, not in isolation, but as a system of mutually reinforcing practices (Laursen 2002: 141-142, emphasis added).

There are two difficulties here. First, the claims contained in this couple of pages are highly contestable and contested both empirically and theoretically. The problem is not that we happen to disagree with the claims (which we do) but rather that Laursen makes them without giving their contestable and contested nature a second thought. Given the substantial critical literature on teamwork drawn from case studies and stemming from work by industrial sociologists, HRM and IR scholars, Labour Process theorists and so on, there is a temptation to interpret Laursen's performance claims made on behalf of teamwork as at best naïve and at worst mistaken. Second, a crucial, if unstated theoretical presupposition, is that human beings are rational calculators and maximisers – i.e. *homo economicus*. This presupposition is replete with problems and we will say more about this below. For the moment, however, we can simply note that if agents are not rational, and, Laursen recognises they are not yet assumes this for analytical convenience, the explanatory value of the theory is immediately destroyed.

### ***Reference to theory from within the wider HRM literature<sup>11</sup>***

Some researchers attempt to offer a theory of the causal mechanisms and processes involved by pointing to literature outside the specific HRM-P literature yet within the wider HRM field. And this is, of course, a perfectly valid way to proceed – although whether it yields results is a different matter.

Hiltrop (1996) carried out an extensive review of the theories and models that are often said to constitute the HRM field, and represents a good place to start. It is worth noting that Hiltrop first refers to 'models and theories' then to 'models and studies' (1996, p. 629). Then, as the paper unfolds, he is also forced to refer to 'perspectives' and 'approaches' as well. We will refer, generically, to *accounts*. We draw this linguistic slippage not to criticise Hiltrop, whose review is quite clear, but to note that his difficulties are difficulties anyone would run into when trying to summarise a literature that lacks theoretical precision. Hiltrop's review identifies contingency models, a multiple stakeholding perspective, contextual approaches, a resource based perspective and best practice models. To this list we might add Legge's normative, descriptive-

functional, descriptive behavioural and critical evaluative models; Storey's conceptual, descriptive, and prescriptive models; the Michigan, Harvard, Guest's and Warwick models; and what Noon refers to as a map. Then there are the universalistic, internal fit, best practice or one size fits all approach; the bundling or internal fit approach; the contingency or external fit approach; and the configurational approach. Finally, there are the theories, approaches and perspectives (see below) stemming from the work of Jackson & Schuler; Guest, and Way & Johnson. If, buried underneath this bewildering array of approaches, perspectives, theories, models, maps, and various levels of abstraction, generality, universality, particularity and concreteness there is something that might amount to a theory that would underpin research on the HRM-P link, then we are at a loss to know what it is.<sup>12</sup>

### ***Reference to theories from outside the HRM field***

Some researchers attempt to offer a theory of the causal mechanisms and processes involved by shifting their gaze outside the HRM field – especially economics and psychology. Taking a multidisciplinary approach is not only a perfectly valid way to proceed, it is one we enthusiastically endorse. What worries us, however, is that the way it is carried out. Raiding other disciplines for theoretical insight, carries with it a series of risks. Let us consider a few examples.

De Kok & Uhlamer (2001) explore resource based theory, institutional theory and transaction cost economics. Ahman & Schroeder (2003) make use of transaction cost economics, behavioural psychology and resource based theory. Cakar & Bititci (2002) use an engineering systems perspective. Wang, Dou & Li (2002) not only use a systems approach, they also make use of economic studies of return on investment and utility analysis in industrial organisational psychology. Boudreau & Ramstad (1999) try to learn from 'financial and marketing arenas'. Between two literature reviews (the 1992 review summarised in the 1999 paper) MacMahan, Virick & Wright (1999) show that the following 'six theoretical perspectives' have been used in research on the HRM-P link: the behavioural perspective, cybernetic models, agency/transaction cost, resource-based, power/resource dependence, institutional, critical/Marxist, interpretive and population ecology, strategic reference points, human capital theory and last but not least, Foucauldian.

It is important to note that not all aspects of these other disciplines are drawn upon. This is, in a sense, inevitable, because researchers obviously only want to borrow *relevant* and/or *compatible* aspects. But the real problem is that the exclusion, is *systematic*. When for example, the discipline of economics is raided for theoretical insight, only mainstream, or neoclassical economics is drawn upon, especially schools such as New Institutionalism and sub-branches such as Human Capital Theory and The Economics of Personnel Management. Insights from Austrian, (Old) Institutional, Feminist, Marxist, Post-Keynesian and Social

economics are ignored. We cannot, therefore, agree with HRM-P researchers Wang, Dou & Li (2002: 205) who claim that: 'For more than forty years, economists have brought to research on training ROI [i.e. returns on investment] *a full spectrum of theories, approaches and techniques* (emphasis added).

Furthermore, many other disciplines are dogged by theoretical and meta-theoretical problems at least as bad as those facing researchers on the HRM-P link. This is easily overlooked for the simple reason that we tend not to be as well versed in other disciplines as we are in our 'own'. Problems within the disciplines of economics and psychology with, for example, with the concept of *rationality*, do not cease to be problems when they are imported from economics or psychology into HRM – recall the case of Laursen above. Huselid (1995: 653) for example, uses 'traditional economic theory' to alert us to the possibility that 'the gains associated with the adoption of High Performance Work Practices cannot survive into perpetuity because the returns on these investments will be driven towards equilibrium as more and more firms make them.' Yet many non-mainstream economists either reject the entire notion of equilibrium,<sup>13</sup> or reject the very idea of a convergence to equilibrium.

Let us pursue the problems in more depth via the work of Ichniowski, Shaw & Prennushi (1997) who do provide a rationale for the selection of HR and performance variables and an explanation of the causal mechanisms and processes in operation, by drawing their 'theory' from *labour economics*. Ichniowski, Shaw & Prennushi seem to take pride, not only in the fact that they personally visited each of 36 work sites, toured each line with an experienced engineer, area operations manager, or superintendent, but also that they:

gathered HRM data by conducting standardized interviews with HR managers, labour relations managers, operations managers of the finishing lines, superintendents, line workers, and union representatives in organized lines. [They] collected supporting information from personnel files, personnel manuals, collective bargaining agreements and other primary source documents. We used this information ... to answer survey-type questions about HRM practices and then to construct a detailed set of HRM dummy variables (ibid: 293).

The HRM variables are: Incentive pay; Recruiting and selection; Teamwork; Employment security; Flexible job assignment; Communication; and Labour relations. We elaborate upon two of these variables to get a flavour of how they are treated.

- *Incentive pay* consists of two variables (a) Profit sharing, defined as 'Is there a company profit-sharing scheme covering the line workers?' and (b) Line incentives defined as: 'Are operators

- covered by a “non-traditional” incentive pay plan which applies across shifts of workers and which is sensitive to quality as well as quantity aspects of output?’
- *Flexible job assignment* consists of one variable ‘job rotation’ defined as: ‘Do operators rotate across jobs or tasks on the line?’

Even supposing the site visits were very comprehensive indeed, they would still be superficial compared to the kind of ethnographic studies that attempt to gain a sophisticated understanding and explanation (answers to Why questions) of phenomena like incentive pay of flexible working – because an ethnographic study of each site would take months. This is, of course, inevitable and is a key difference between using qualitative and quantitative techniques. The key question, however, is this: Whilst their paper does attempt to provide a rationale for the selection of HR and performance variables, and does attempt to explain the causal mechanisms and processes in operation, is the rationale and the explanation *adequate*?<sup>14</sup>

The rationale for selecting their particular 26 variables is that they are ‘the most common combinations of HRM practices in these production lines’. However, they also note that their seven main HRM variables just happen to be found in several economic theories (ibid: 295, fn 1). We leave it to the reader to judge whether this constitutes an *adequate* rationale: we think probably not. As a theory and explanation of the causal mechanisms and processes in operation, however, it is clearly inadequate because they offer no more than a mere description of the most common practices. *Why* these practices are linked to performance does not derive from the data they gathered on their site visits, and there is no recourse to HRM theory to provide an explanation.

There is, furthermore, a more pressing problem. The actions of human beings that constitute HRM practices are characterised by a host of tricky psychological, sociological, political, ideological and cultural factors. Each one of the variables cited is multi-dimensional in this sense. To imagine for one moment that something as complicated as the practices involved with, for example, ‘Flexible job assignment’ can be grasped by something as crude as a variable called ‘Job rotation’ defined as: ‘Do operators rotate across jobs or tasks on the line?’ is spectacularly naive. Even if operators can be observed to rotate across jobs, this provides no explanation whatsoever about why they do it, how they do it, under what conditions they are prepared to do it, under what conditions they might stop doing it or oppose it, the consequences arising from it, and so on. Even if it is associated with increased performance, we have no explanation for this association. What if the increase in performance come not from job rotation itself, but from the consequences of job rotation such as multi-tasking, multi-skilling, de-skilling, job enlargement, increased

work intensity and so on? Nor does it explain how this practice compliments or negates other HR practices such as Incentive pay.

### *Escape to labour economic theory*

There is, however, a possible 'escape route.' Perhaps labour economic theory (they cite Milgrom & Roberts 1990 and 1995; Kandel & Lazear 1992; Baker, Gibbons & Murphy 1994; and Holmstrom & Milgram 1994) can come to their rescue and provide the theory and explanation for the kinds of empirical relationships Ichniowski, Shaw & Prensushi's empirically estimate.<sup>15</sup> Let us consider this possibility.

It is important to notice that shifting from empirical research on the HRM-P link to the particular kind of labour economics research they cite, involves a *significant meta-theoretical shift*. Ichniowski, Shaw & Prensushi seem to pride themselves on the quality, and perhaps the realisticness, of the data they obtained from their site visits. Moreover, they are archetypical empirical researchers in the sense that they are extremely concerned to test their predictions against the empirical data obtained from site visits. The meta-theoretical approach used in the labour economics studies they cite, however, is from an *entirely different tradition*. This is bit like trying to mix oil and water.

The models developed by these labour economists are examples of what the empirical economist Pencavel (1994) pejoratively refers to as '*toy*' theories. 'Toy' theories are purely algebraic theories or models not designed to be confronted with data, but are pure thought experiments. The following comments from Kandel & Lazear (1992: 803-14) are designed to give a flavour of this kind of theorising:

Suppose that output from a group of identical workers is some function of each workers effort...To motivate the analysis we introduce a "peer pressure" function

$$\text{peer pressure} = P(e_i; e_j, \dots, e_N, a_i, a_j, \dots, a_N)$$

The peer pressure that worker I feels depends generally on his own effort,  $e_i$ ; on the effort of his peers  $e_j, \dots, e_N$  and on the actions that he and his peers may take  $a_i, \dots, a_N$  ...The peer pressure function is an attempt to formalize the discussion of tastes. By making explicit assumptions about  $P(\ )$ , we clarify the exact nature of the tasted required to explain a particular behaviour.

Suppose that the world consisted of two types of workers: the social for whom  $P_1 < 0$ , and the independent from whom  $P = 0$ ...If one's type is known by the individual himself, does a separating equilibrium exist in which each type of worker prefers firms of his own kind?

Kandel & Lazear also ask us to: 'Suppose that, in addition to exerting effort, workers can monitor each other at a cost. Workers who are caught shirking can be penalized by their partners [by] mental or physical harassment'. They then define 'the expected penalty associated with being caught shirking' in functional terms and assuming that 'since all workers are *ex ante* identical, the choice of monitoring level *k* will be identical. Each workers chooses a 'monitoring level' and 'puts forth monitoring effort because he believes that other workers will increase their effort as a response.'

Many of these claims and assumptions are not only unrealistic and false, *they are known to be false* by the economists who employ them. These models are populated by agents known to be fictitious, inhabiting environments known to be fictitious, undertaking forms of behaviour known to be fictitious, and doing so for known reasons known to be fictitious. We will not waste time demonstrating that real workers undertaking real tasks, for real reasons in real workplaces are not like this, because this is freely admitted by advocates of toy models – who have ways other of defending this lack realisticness.<sup>16</sup>

Whilst the use of *known* falsehoods for purposes of mathematical tractability is extremely common in neoclassical economic theory, its popularity does not make it right. We noted above that a theory consists, in part, of statements that deliver *explanation*. The moment *known* falsehoods enter a theory, however, that theory immediately ceases to provide the explanatory dimension, because *bone fide* explanations cannot include known falsehoods.<sup>17</sup> It does not require a sophisticated philosophical argument to demonstrate this, so a simple example will suffice. Suppose I tried to explain to my colleagues how I arrived at my office, and my explanation included the *knowingly* false claim that I arrived by magic carpet. My colleagues would immediately reject the explanation on the grounds that, whatever my reasons for making this false claim, even I did not believe I arrived by this mode of transport. It would not count as an explanation.

Irrespective, then, of any merits 'toy' theorising might have, it should be crystal clear that the meta-theoretical tradition at work here is, *or should be*, antithetical to that used by empirical researchers. It is worth stating, for the record, that our criticism of these economic theories it not that we just happen not to like these particular ones. Rather, we consider this *class of theory* to be devoid of explanatory power. Ichniowski, Shaw & Prenzushi cannot, therefore, legitimately find the missing theory in this kind of labour economics, and the same lesson applies to other empirical researchers on the HRM-P link who have illusions in this kind of labour economics.<sup>18</sup> This 'escape route' is not available.

#### 4. Three contributions from the HRM-P literature

In this section we consider the work of three sets of writers (Jackson & Schuler; Guest, and Way & Johnson) who have at least started to tackle the problem of under-theorisation.

Jackson & Schuler (1995: 239-243) provide a list of theories drawn from sociology, economics, management and psychology that might potentially be relevant for theorizing HRM.

- In *General Systems Theory (GST)*, skills and abilities are inputs from the external environment, employee behaviour is the cellular mechanism and organisational performance is the output. GST has often been criticized for its functionalism.
- *Role Behaviour Perspective (RBP)* is a micro-social psychological, interpretive approach to studying the expectations of role holders in organisations. It has recently been used by Stone-Romero, Stone & Salas (2003) to consider cultural and subcultural phenomena affect the work-related 'scripts' that a worker is willing and able to use.
- *Institutional Theory* focuses upon explaining the processes through which internal and external pressures on an organization lead it to (a) resist change and (b) evolve and converge.
- *Resource Dependence Theory (RDT)* focuses upon issues of control of valued resources, and hence power. Whilst it is usually considered to be a micro-sociological, interactionist perspective, any form of theorizing that treats power as central, cannot ignore extensive work stemming from Postmodern and Foucaultian approaches.

Whilst these theories might, with some work, provide theoretical insights for empirical research the HRM-P link they do not sit easily with the kind of empirical research that drives the HRM-P link. Some theories presuppose a power-soaked, hermeneutic world that can be 'understood but not measured' as Sayer (1992) puts it and the very idea that notions of power could be quantified, reduced to a variable, and treated via empirical techniques would be rejected by most postmodernists. Others presuppose a world that is 'open' and unpredictable. Whilst unpredictability is not, for us, a problem, it is a problem for the application of empirical techniques that aim precisely to make, and test, predictions.

Jackson & Schuler also discuss Human Capital Theory, Transaction Cost Theory, Agency Theory and Resource Based Theory, which we will not mention because they are dealt with in the section on Guest. Whilst we have some sympathy with Jackson & Schuler's thinking, the theories and perspectives they consider do not lend themselves easily, if at all, to regression, analysis of variance, correlation, structural equation modelling and factor analysis and so on. In short, these potential theories are not consistent with the empirical approach of most research on the HRM-P link.

More than any other researcher in the field, Guest has sought to identify various theories, models, approaches and perspectives that might, conceivably, underpin research on the HRM-P link. In 1997 he identifies three broad categories of general-level theory (i.e. Strategic, Descriptive, and Normative) and a 'host of more specific and concrete theories about particular areas of policy and practice' (1997: 264). HRM. In 1999 he identifies 'eight theoretical perspectives, representing five broader, though sometimes overlapping conceptual perspectives' (Guest 1999: 7). The eight broad perspectives are Individual-organisational Performance Linkages; Strategic fit; Personnel Systems & Staff Alignment; Partnership or Stakeholder Perspective; New Economics of Personnel. In 2001 he identifies the New Economics of Personnel; Human Capital theory; the strategic contingency approach; developments in theory and performance related to refinements in metrics to measure the impact of HRM on business performance; and developments that lay greater focus on outcomes of relevance to individual employees. Guest is clearly not enamoured with many of the theories, models, approaches and perspectives he identifies. In the following section we use a combination of Guest's own comments, and some of our own observations, to demonstrate that many of these theories, models, approaches and perspectives are most unlikely to provide the much needed theoretical underpinnings.

- *Strategic* and *Descriptive theories of HRM* are dismissed because they fail to 'provide much insight into how HRM policy and practice translates into performance' (1997: 267). *Normative theories of HRM*, have their roots in organizational psychology and lower-range, more specific behavioural theories specifically *Expectancy Theory* – which he describes as a 'theory about the link between HRM and performance' (1997: 267). Guest is a little unsure what to make of expectancy theory. In 1997 and 2001 it passes with no critical comment, but in 1999 he is troubled by the 'problems with the rationality assumptions underpinning expectancy theory and 'the residual problem of aggregating individual responses' (1999:8 and 11). For reasons discussed above, and related to the use of knowingly false assumptions (in this case, specifically the rationality assumption), Expectancy Theory cannot provide the missing theory.

- Guest damns the *New Economics of Personnel* with faint praise. 'One of the great virtues of economics is that it is very theory driven. A drawback is that the theory, at least in this context, can be narrow and simplistic (2001: 1093). Being 'theory driven' is, however, not a virtue when that theory is narrow and simplistic. It is even less of a virtue when it relies, necessarily, upon extensive use of knowingly false assumptions. As we demonstrated above, once again, this approach is not really a suitable theoretical basis for research on the HRM-P link. The same goes for Human Capital theory – we do not elaborate because Guest does not.
- Guest criticises the *Strategic Fit* approach because it does not 'address the black box' (1999: 11), which would seem to invalidate it immediately, as a potentially useful theory.
- Modest developments in theory and performance have occurred, according to Guest, in relation to 'a *refinement in the metrics* that can be used to measure the impact of HRM on business performance (emphasis added)' and he cites the work of Huselid. No matter how refined, however, a metric is not a theory. We do find it a little worrying that Guest can discuss 'refinements in metrics' in a section entitled 'Theoretical development' (2001: 1093).
- Under the heading *Individual-Organisational Performance Linkages*, Guest locates Expectancy Theory (which we have dealt with) and *Action Theory*. Whilst we have no particular objection to Action Theory (much would depend on the specific version under examination), and would not rule out its use in investigating the psycho-dynamics of individual action, even Guest realises 'the residual problem of aggregating individual responses' (1999: 11). The best we could say is that Action Theory might assist in explaining some aspects of individual behaviour in the HR theatre.
- Another area where Guest sees modest theoretical development comes from work that focuses on outcomes that are of relevance to *individual employees* and investigates their reactions to HRM (2001: 1093). Whilst experience of the 'inside story' (Mabey Skinner and Clark 1998) is clearly important, this issue relates to methodology rather than theory: it is a comment on how to investigate any HR related issue. Furthermore, apart from the Mabey, Skinner and Clark collection, Guest musters support for the development of this approach with references to large scale surveys, thereby conflating the development of theory with the development of empirical evidence.
- Guest explains the *strategic contingency approach* as follows. 'In manufacturing, a high performance/high commitment approach may always be preferable since labour costs are a small

proportion of total costs and high-quality labour can facilitate fuller exploitation of other more costly resources. But in services, there is still a strategic choice between the high road of investment in a numerically flexible, low wage, highly controlled workforce' (2001: 1093). Whilst these may indeed be sound observations, they do not amount to a theory.

- The *Partnership or Stakeholder Perspective* is rooted in Industrial Relations and centres around the need for some form of joint governance system to maintain employee involvement, facilitate meaningful two-way communication, minimise exploitation (1999: 13). Again, whilst these may indeed be sound observations, they do not amount to a theory.
- Finally, when Guest refers to *Personnel Systems & Staff Alignment*, he has in mind *Resource Based Theory* (1999: 12). The essence of resource base theory (RBT) revolves around the claim that a firm's competitive advantage is generated by possession of a unique configuration of HPWS factors that cannot be imitated by others. Whilst we accept that some version of RBT may be the way forward, as it stands it is often (but arguably need not be) rooted in neoclassical economic theory<sup>19</sup> which, as we saw above, is beset by its own theoretical problems. Moreover, the very uniqueness and inimitability of the configuration of HPWS factors that allegedly generate competitive advantage, especially this included dynamic factors like entrepreneurial insights and tacit knowledge, would very likely make the discovery of a stable empirical link between some bundle of HR practices and organisational performance most unlikely. Whilst RBT may indeed be a fruitful way to proceed, a great deal more work will have to be done on the 'theory' aspect of RBT.<sup>20</sup>

Way & Johnson's (2005) significant contribution to considering theories that might provide the requisite theoretical underpinnings, is to introduce *Systematic Agreement Theory and (SAT)* and *Strategic Reference Points Theory (SRPT)*.

- *SAT* makes use of the notion of organizational alignment, defined as 'the degree to which an organization's design, strategies and culture are co-operating to achieve the same desired goals' (2005: 6). It offers a broad framework for understanding the ways in which organizational alignment (i.e. structural, cultural, performance and environmental alignment) should be analysed and made operational. Whilst this is a useful framework, it has a shortcoming - which Way & Johnson are perfectly aware of (ibid: 8). It defines the outcomes that, if met, would allow for organization alignment, but exactly what the organizations' leaders should do on Monday morning, to meet

these outcomes is left either very abstract, or highly doubtful. Consider one example. 'Horizontal structural alignment is achieved when the system of HRM practices deployed...elicits, from its human resources, those behaviours (outcomes) necessary for...the realization of organizational goals and objectives' (ibid: 7). They go on to suggest that this could be done by motivating the human resources via performance-based compensation. Whilst it makes sense, at an abstract level to offer performance-based pay (PRP) as a way of aligning employees and employers motives, this is not only extremely abstract, many commentators would raise grave doubts about the efficacy of PRP. To gain more explanatory power, they turn to (*SRPT*).

- *SRPT* is an amalgam of theoretical perspectives like motivation theory, strategic intent and resource dependence. These perspectives provide a 'broad range of reference points...from which an organization creates benchmarks' (ibid: 9) which decision makers can use to evaluate choices, make strategic decisions, and signal their intent to other key personnel. They make use of two concepts: 'fit' and 'consensus.' Whilst this is also a useful framework, it has the same shortcoming as SAT – although this time Way & Johnson do not seem aware of it. Consider one example. 'Internal fit represents the degree of congruency among the SRP's of the HRM process' (ibid: 9) and would be secured when HRM practices elicit congruent behaviour from the organization's human resources. Way & Johnson are defining the outcomes that, if met, would allow, in this case, for organization fit, but once exactly what the organizations' leaders should do on Monday morning, to meet these outcomes is left either very abstract.

What worries us about Schuler & Johnson's work, is that they seem poised to join the ranks of those who are prepared to accept the assertion that that theory will emerge and develop via more, and/or better, empirical work. They offer their framework as a means of providing researchers with a 'theoretical foundation from which they can generate predictive SHRM models' (ibid: 16).

Whilst we applaud attempts by these three sets of writers to identify the requisite theoretical insights (scores of other researchers do not even bother trying) without meta-theoretical reflection, they, and others, are unlikely to make little headway. Indeed, we see the following problems remaining.

- i) It is unclear what it is about the individual theories, models, approaches and perspectives, operating at various levels of generality specificity, concreteness or abstraction that allows us to meaningfully call them 'theories'. What, for example, allows us to label Expectancy Theory and the

Partnership or Stakeholder Perspective as 'theories' when these two endeavours are meta-theoretically miles apart? As far as we can see, there is no such common feature.

- ii) If, we were able to identify an adequate theoretical foundation upon which to base empirical research on the HRM-P link, it seems likely that this foundation would consist of a combination of several theories, models, approaches and perspectives, operating at various levels of generality specificity, concreteness or abstraction all 'bolted' together in some way. Yet it is unclear how any attempt to 'bolt' all this together to form a coherent framework could be done on anything other than an *ad hoc* basis. Indeed, this is what we have at present and is precisely what motivates the very idea that the research is under-theorised.
- iii) These two problems might well share the same origin. Advocates of empirical research on the HRM-P link, have not yet established what a 'theory' might look like, and, moreover, *they are most unlikely to develop such an insight, because they are committed to the idea that theory (whatever it is) will emerge and develop via more, and/or better, empirical work.* <sup>21</sup>

## Conclusion

The idea that theory will develop via more, or better, empirical work has its rationale in the well-known idea of a cyclical research process. We start with theory, generate hypotheses from that theory, test these hypotheses (predictions) with empirical data and then return to the initial theory which is strengthened, abandoned or modified as appropriate. Whilst this cyclical process sounds plausible, and something like it repeated countless times every day in universities all over the world, its plausibility and ubiquity does not make it appropriate for research on the HRM-P link, for the following reasons:

- There simply is no theory, or coherent set of interconnecting theories, for research on the HRM-P link to start the initial phase of the research cycle.
- Without initial theory (a) we have no rationale for the selection of variables and, hence have Black Box theorising; (b) it is unclear what it is we are testing, and hence (c) we have measurement without theory. It is also unclear how hypotheses are generated in the first place.
- It is unclear how more and/or better empirical work can overcome the perennial problem that arises when theory (if it be) suggests the existence of a relation that cannot subsequently be found via empirical work, or alternately, when empirical work suggests the existence of a relation that cannot subsequently be accounted for theoretically. Huselid (1995: 670) for example, runs into the first version of problem.

But despite the compelling theoretical argument that better internal and external fit will increase firm performance, I found only modest evidence of such an effect for internal fit and little evidence for external fit...However, the theoretical arguments for internal and external fit remain compelling, and research based on refined theoretical and psychometric development ... is clearly required before such a conclusion can be accepted with any confidence...The very large theoretical literature in the fields of human resource management based on the premise that fit makes a difference cries out for more work in this area.

Recourse to this cyclical research process cannot rescue the idea that theory will develop via more, and/or better, empirical work. This does not, of course, mean that empirical work has no role to play in developing a theory or theories. It does mean that if research on the HRM-P link is to develop theoretical underpinnings, then maybe it is not only 'time to go back to the drawing board and take another hard look at the theory' as Guest (2001: 1105) puts it, but *time to go back to the drawing board and take another hard look at meta-theory.*' This paper has made a start.

---

<sup>1</sup> Rather than provide the usual (long) list of references, we simply point the reader to Wall & Wood's (2005) survey of the twenty five most commonly cited articles that appeared in 'reputable' journals. There are, of course, far more than this, that appeared in other journals and we might add recent offerings by Toulson & Dewe 2004; Papalaxandris 2004; Yao-Sheng 2005. Cappelli & Neumark (2001) provide a useful potted history of the paradigm up to the turn of the century.

<sup>2</sup> Cf. Wright & McMahan 1992: 297; Jackson & Schuler 1995: 255; Becker & Gerhart 1996: 781-2; Boudreau & Ramstad 1999: 78). Others (most recently Wall & Wood 2005) have cast doubt on the empirical evidence, although we will not pursue this matter here. Other refer to what we might call 'technical' problems with sample and response rates; adequacy of research design; reliability and validity of HRM measures metrics, measurement and data – c.f. Becker & Gerhart 1996; Gerhart B. 1999; Gerhart, Wright, McMahan & Snell 2000; Wright & Sherman 1999 and Wall & Wood 2005. We do not address these 'technical' problems because the nature of our critique is more fundamental.

<sup>3</sup> Recent commentators to recognise the under-theorisation problem include: Bowen & Ostroff 2004; Den Hartog & Verburg 2004; Wright, Garden & Moynihan 2004. Rogers & Wright (1999) are the only commentators we can find paying *serious* attention to the fact that theory might not develop via empirical work.

<sup>4</sup> We use 'meta-theory' as *portmanteau* term to include philosophy of science, methodology, ontology, epistemology and notions of causality.

<sup>5</sup> We exclude from this literature (i.e. empirical research on the HRM-P link) and from our critique, those (few) writers who do attempt to *explain*, without being *preoccupied* with empirical techniques, the nature of the causal mechanisms and processes that may govern any alleged empirical HRM-P link- c.f. Bowen & Ostroff 2004; Dooreward & Melhuizen (2000); Clark, 1999; Elias & Scarbrough 2004; Edwards & Wright 2001; Folger and Turillo 1999; Haynes & Fryer 2000; Hendry, Woodward, Bradley & Perkins (2000); Murphy & Southey 2003; Purcell *et al* 2003; Knox & Walsh 2005; Truss 2001.

<sup>6</sup> See also, Bacharach 1989: 498; Noon 1994: 18; Storey 1992: 40; Sutton and Straw 1995: 376; and Kane 1991: 247.

<sup>7</sup> We say 'minimally' because there are other criterion that need to be met for something to be said to be a theory. We do not pursue matters here, because if it appears that 'theories' of the HRM-P link do not even meet these criterion, then discussing further criterion is moot.

<sup>8</sup> Almost every piece of empirical research on the HRM-P link, reveals a commitment to some version of prediction, even if it is no more than testing a prediction.

<sup>9</sup> Comments to the effect that 'the independent variables explained X% of the variance in the dependent variable' use the term 'explanation' in a strict technical sense and not in the sense of providing an answer to a 'Why' question.

<sup>10</sup> Whilst attempts to provide theories of HRM are unsatisfactory, we want to distance ourselves from postmodernists and poststructuralists who claim that to seek underlying theories is to remain wedded to the 'modernist tradition' and is

---

'optimistic if not futile' (Foley & McGillivray 1999: 170). We think it *is* possible to provide theories, but this will require a completely different meta-theoretical perspective to the current positivism.

<sup>11</sup> Examples of others who provide at least some theoretical justification for their empirical work are: Benkhoff (1996 & 1997); Batt (2001) and Budhwar (2000).

<sup>12</sup> Whilst we do not share Caker & Bititci's (2002) formal engineering systems approach to HRM, they are right to highlight the inconsistency with which models of HRM are classified.

<sup>13</sup> See, for example, Fleetwood's (1995) work on the Austrian economist Hayek, who rejected the notion of equilibrium.

<sup>14</sup> In the introduction to a series of case studies, Becker & Huselid claim to provide 'an outline of the theoretical rationale and empirical literature linking HRM systems with corporate performance (1999: 288). We see little that can be described as 'theoretical rationale.' They also claim the case studies provide 'rich detail on how leading firms use their HRM systems'. Whilst these case studies offer description, we doubt 'rich detail' can be obtained from 'a day and a half interviewing the senior HR and line leadership.'

<sup>15</sup> We consider the work of labour economists like Milgrom & Roberts because they were used by researchers on the HRM-P link, like Ichniowski, Shaw, and Prennushi to provide theoretical insight that might underpin their more empirical work.

<sup>16</sup> Hahn, a leading exponent of 'toy' theorization makes this clear: When a mathematic economist assumes that there is a three good economy lasting two periods, or that agents are infinitely lived...everyone can see that we are not dealing with any actual economy. The assumptions are there to enable certain results to emerge and not because they are taken descriptively (Hahn, cited in Lawson 1997: 110).

<sup>17</sup> Researchers on the HRM-P link who fall back on any kind of 'toy' theories that inevitably employ *homo economicus* end up on the following fork. If they believe the rationality assumption, they can be empirically refuted – at least this would be the verdict of most social scientists. More likely, however, is that people are assumed to be rational because this is a mathematically tractable assumption. In this case, they are employing an assumption they know to be false. For further elaboration of the (lack of) explanatory power of 'toy' theories see Fleetwood (2002).

<sup>18</sup> For further consideration of economic theory and its meta-theoretical problems, see Downward 2003; Fleetwood 1999; Lawson 1997 & 2003.

<sup>19</sup> See Bowman & Ambrosini (2000) for a non-neoclassical interpretation of resource based theory.

<sup>20</sup> The discussion between Barney 2001, and Priem & Butler 2001a & b has, as one of its components, a debate over the nature of 'theory' in RBT.

<sup>21</sup> Meyer & Smith's (2000: 319) talk of '*examining* the mechanisms' quickly evaporates into *measuring* the mechanisms

## References

- Ahmad, S. Schroeder, R. (2003) 'The Impact of Human Resource Management Practices on Operational Performance: Recognizing Country and Industry Differences,' *Journal of Operations Management* 21, 19-43.
- Bacharach, S. (1989) 'Organizational Theories: Some Criteria for Evaluation' *Academy of Management Review*, Vol. 14, No. 4, 495-515.
- Baker, G. Gibbons, R. Murphy, K. (1994) 'Subjective Performance Measures in Optimal Incentive Contracts,' *Quarterly Journal of Economics*, 108:8, 1125-56.
- Barney, J. (2001) 'Is The Resource-Based "View" a Useful Perspective for Strategic Management Research? Yes' *Academy of Management Review*, Vol. 26, No. 1, 41-56.
- Batt, R. (2001) 'The Economics of Teams Amongst Technicians,' *British Journal of Industrial Relations*, 39:1, 1-24.
- Becker, B. Gerhart, B. (1996) 'The Impact of Human Resource Management on Organizational Performance: Progress and Prospects', *Academy of Management Journal*, 30, 4, 779-801.
- Becker, B. Huselid, M. (1999) 'Overview: Strategic HRM in Five Leading Firms' *Human Resource Management*, Vol. 38, No. 4, 287-301.
- Benkhoff, B. (1996) 'Catching up on Competitors: How Organizations Can Motivate Employees To Work Harder', *The International Journal of Human Resource Management*, 7:3, 736-752.
- Benkhoff, B. (1997) 'A Test of the HRM Model: Good for Employers and Employees' *Human Resources Management Journal*, Vol. 7, No. 4, 44-60.
- Boudreau, J. Ramstad, P. (1999) ' Human Resource Metrics: Can Measures be Strategic,' *Research in Personnel and Human Resources Management*, Supplement 4, 75-98
- Budhwar, P. (2000) 'Strategic Integration and Development of Human Resource Management in the UK Manufacturing Sector,' *British Journal of Management*, Vol. 11, 285-302.
- Bowen, D. Ostroff, C. (2004) 'Understanding HRM-Form Performance Linkages: The Role of the "Strength" of the HRM System' *Academy of Management Review*, Vol. 29, No. 2, 203-221.
- Bowman, C. Ambrosini, V. (2000) 'Value Creation Versus Value Capture: Towards a Coherent Definition of Value in Strategy' *British Journal of Management*, Vol 11, 1- 15.
- Cakar, F. Bititci, U. (2002) 'Modelling the HRM Business Process,' *International Journal of Human Resources Development and Management*, Vol. 2, No's 3/4 223-247
- Capelli, P. Neumark, D. (2001) 'Do "High Performance" Work Practices Improve Establishment-Level Outcomes?' *Industrial & Labour Relations Review*, Vol. 54, No. 4, 737-775.
- Clark, I. (1999) 'Corporate Human Resources and "Bottom Line" Financial Performance' *Personnel Review*, Vol. 28, No. 4, 290-306.

- Den Hartog, D. Verburg, R. (2004) 'High Performance Work Systems, Organisational Performance and Firm Effectiveness,' *Human Resource Management Journal* Vol.14, Issue 1, 55-79.
- Doornward, H. Meihuizen, H. (2000) 'Strategic Performance Options in professional Service Organisations' *Human Resource Management Journal*, Vol. 9, No. 3, 46-62.
- Downward, P. (2003) *Applied Economics and the Critical Realist Critique*, Routledge: London.
- Edwards, P. Wright, M. (2001) 'High Involvement Work Systems and Performance Outcomes: The Strength of Variable, Contingent & Context Bound Relationships,' *International Journal of Human Resource Management*, 12:4, 568-85.
- Elias, J. Scarbrough, H. (2004) Evaluating human capital: an exploratory study of management practice, *Human Resource Management Journal*, Vol. 14, No. 4, 21-04
- Fleetwood, S. (1995) *Hayek's Political Economy: The Socio-economics of Order*: London: Routledge.
- Feetwood, S. (1999) *Critical Realism in Economics: Development and Debate*, Routledge: London, pp 273.
- Fleetwood, S. (2002) 'Why Mainstream Economics Explains Nothing At All', *Post-Autistic Economics Review* No. 17, December.
- F & H (2007a forthcoming) 'HRM-Performance Research: Under-theorised and Lacking Explanatory Power,' *International Human Resources Management*.
- F & H (2006b forthcoming) 'High Performance Work Systems, Organisational Performance and (Lack of) Predictive Power,' *Journal of Critical Realism*.
- F & H (2007b) *The Performance of HR: Towards a New Meta Theory, jointly with Anthony Hesketh*, Cambridge: Cambridge University Press.
- Gerhart, B. (1999) 'Human Resource Management & Firm performance: Measurement Issues and their Effect on Causal and Policy Inferences,' *Research in Personnel and Human Resources Management*, Supplement 4, 31-51.
- Gerhart, B. Wright, P. McMahan, G. Snell, S. (2000) 'Measurement Error In Research on Human Resources and Firm Performance: How Much Error Is There and How Does It Influence Size Estimates' *Personnel Psychology*, 53, 803-834.
- Guest, D. (1997) 'Human Resource Management and Performance: A Review and Research Agenda', *Process' International Journal of Human Resources Management*, Vol. 8, No.3, 263-276.
- Guest, D. (1999) 'HRM and Performance: Seeking the Missing Link. A Progress Report', paper presented at the BUIRA conference, Cardiff.
- Guest, D. (2001) 'Human Resource Management: When Research Confronts Theory' *International Journal of Human Resources Management*, Vol. 12, No.7, 1092-1106.
- H & F (2006a forthcoming) '(Not) Measuring the HRM-Organizational Performance Link: Applying Critical Realist Meta-theory,' *Organization*.

- Haynes, P. Fryer, G. (2000) 'Human Resources, Service Quality and Performance: A Case Study' *International Journal of Contemporary Hospitality Management*, Vol. 12, No. 4, 240-248.
- Hendry, C. Woodward, S. Bradley, P. Perkins, S. (2000) 'Performance and Rewards: Cleaning Out the Stables' *Human Resource Management Journal*, Vol. 9, No. 3, 46-62.
- Hiltrop, J-M. (1996) 'The Impact of Human Resource Management on Organisational Performance: Theory and Research,' *European Journal of Human Resource Management*, Vol. 14, No. 6, 628-37.
- Holmstrom, B. Milgram, P. (1994) 'The Firm as an Incentive System,' *American Economic Review*, 84:4, 972-91.
- Hoobler, J. Brown Johnston (2005) 'An Analysis of Current HRM Publications' *Personnel Review*, Vol. 33, No. 6, 665-676.
- Huselid, B. (1995) 'The Impact of Human Resource Management Practices on Turnover, Productivity, and Corporate Financial Performance', *Academy of Management Journal*, **38**, 3, 635-672
- Ichniowski C, Shaw K. Prensushi G. (1997) 'The Effects of Human Resource Management on Productivity: A Study of Steel Finishing Lines' *The American Economic Review*, Vol. 87, No. 3, 291-313.
- Jackson, S, Schuler, R (1995) 'Understanding Human Resource Management in the Context of Organizations and their Environments' *Annual Review of Psychology* 46, 237-264.
- Kandel, E. Lazear, E. (1992) 'Peer Pressure and Partnerships,' *Journal of Political Economy*, 100:4, 801-17.
- Kane, J. (2001) 'Towards a Modernized Model of Science' *Human Resource Management Review*, Vol. 1, No. 4, 245-51.
- Knox, A. Walsh, J. (2005) , *Human Resource Management Journal*, Vol. 15 No. 1, 57-76.
- Kok de, J. Uhlaner, L. (2001) 'Organization Context and Human Resource Management in the Small Firm' *Small Business Economics*, Vol.17, 273-291.
- Lawson, T. (1997) *Economics and Reality*, Routledge.
- Lawson, T. (2003) *Reorienting Economics*, Routledge.
- Laursen, K. (2002) 'The Importance of Sectoral Differences in the Application of Complementary HRM Practices for Innovation Performance' *International Journal of the Economics of Business*, Vol. 9, No. 1, 139-156.
- McMahan, G, Virick, M. Wright, P.M. (1999) 'Alternative theoretical Perspectives for Strategic Human Resource Management Revisited: progress, Problems, and prospects', *Research in Personnel and Human Resources Management*, Supplement 4, 99-122.
- Meyer, J. Smith, A. (2000) 'HRM Practices and Organizational Commitment: Test of a Mediation Model,' *Canadian Journal of Administrative Sciences*, 17 (4) 319-331.

- Milgrom, P. Roberts, J. (1990) 'The Economics of Modern Manufacturing,' *American Economic Review*, 80:3, 511-28.
- Milgrom, P. Roberts, J. (1995) 'Complementarities and Fit: Strategy, Structure and Organizational Change in Manufacturing,' *Journal of Accounting and Economics*, 19 (2-3), 179-208.
- Murphy, G. Southey, G. (2003) High Performance Work Practices: Perceived Determinants of Adoption and the Role of the HR Practitioner,' *Personnel Review*, Vol. 32, No. 1, 73-92.
- Noon, M. (1992) 'HRM: A Map, Model or Theory?' P. Blyton & P. Turnbull, *Reassessing Human Resource Management*, London: Sage
- Papalexandris, L. (2004) 'Examining the Link Between Human Resource Management Orientation and Firm Performance' *Personnel Review*, Vol. 33, Issue 5, 499-521.
- Pencavel, J. (1994) *Labour Markets Under Trade Unionism: Employment, Wages and Hours*, Oxford: Blackwell.
- Priem, R. Butler, J. (2001a) 'Is The Resource-Based "View" a Useful Perspective for Strategic Management Research?' *Academy of Management Review*, Vol. 26, No. 1, 22-40.
- Priem, R. Butler, J. (2001b) 'Tautology in The Resource-Based View and the Implications of Externally Determined Resource Value: Further Comments' *Academy of Management Review*, Vol. 26, No. 1, 57-65.
- Purcell, J. et al (2003) *Understanding the People and Performance link: Unlocking the Black Box*, London: CIPD.
- Ramsay, H. Scholarios, D. Harley B. (2000) 'Employees and High-Performance Work Systems: Testing Inside the Black Box' *British Journal of Industrial Relations*, 38-4, 501-31.
- Rogers, E. Wright, P. (1999) 'Measuring Organizational Performance in Strategic Human Resource Management: Problems, Prospects and Performance Information Markets,' *Human Resource Management Review*, Vol. 8, No. 3, 311-31.
- Stone-Romero, E. Stone, D. Salas, E. (2003) 'The Influence of Culture on Role Conceptions and Role Behavior in Organisations,' *Applied Psychology: An International Review*, Vol. 52, No. 3, 328-362
- Storey, J. (1992) *Developments in the Management of Human Resources*, Oxford: Blackwell
- Sutton, R. Straw, B. (1995) 'What Theory is Not' *Administrative Science Quarterly*, Vol. 40, No. 3, 371 -85.
- Toulson, P. Dewe P. (2004) 'HR Accounting as a Measurement Tool' *Human Resource Management Journal*, Vol. 14, Issue 2.
- Truss, (C. 2001) 'Complexities and Controversies in Linking HM with Organizational Outcomes' *Journal of Management Studies*, 38:8, 1120-49.
- Wall, T. Wood, S. (2005) 'The Romance of Human Resource Management and Business Performance, and the case for big science' *Human Relations*, Vol. 58, No.4, 429-462.

- Wan, D. Kok, V. Ong C. (2002) 'Strategic Human Resource Management & Organisational Performance in Singapore' *HR Management* July/August 2002.
- Wang, G. Dou, X. Li, N. (2002) 'A Systems Approach to Measuring Return on Investment for HRD Interventions' *Human Resource Development Quarterly*, Vol. 13, No. 2, 203-224.
- Way, S. Johnson, D. (2005) 'Theorizing About the Impact of Strategic Human Resource Management' *Human Resource Management Review* Vol. 15, 1-19.
- Whetten, D. (1989) 'What Constitutes a Theoretical Contribution?' *Academy of Management Review*, Vol. 14, No. 4, 490-95.
- Wright, P. Gardner, T. Moynihan, L. (2003) 'The Impact of HR Practices on the Performance of Business Units' *Human Resource Management Journal*, 13:3, 21-36.
- Wright, P. McMahan, G. (1992) 'Theoretical Perspectives for Human Resource management', *Journal of Management*, 18, 2, 295-320.
- Wright, P. Sherman, S. (1999) 'Failing to Find Fit in Strategic Human Resource Management: Theoretical & Empirical Problems,' *Research in Personnel and Human Resources Management*, Supplement 4, 53-74.
- Yao-Sheng, L. (2005) 'Business Strategy and Performance: The Role of Human Resource Management Control,' *Personnel Review*, Vol. 34, Issue 3, 294-309.