Theorising Under-theorisation in Research on the HRM – Performance link Steve Fleetwood & Anthony Hesketh

Abstract

Purpose: To identify the conceptual underpinnings of the theoretical weaknesses of extant research investigating the HRM-Organizational Performance Link (hereafter HRM-P Link).

Approach: We review a number of different empirical approaches to the HRM-P Link and reflect upon, and define, theory, focusing upon two important dimensions: prediction and explanation. We discuss why the field in its current guise cannot sustain a commitment to explanation, so that under-theorisation and lack of explanatory power go hand in hand. We then tackle the possibility that theoretical underpinnings for empirical research on the HRM-P link might come from other disciplines such as economics. We begin to set out a meta-theoretical alternative.

Findings: Our review suggests (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 actually far worse than is usually recognised; and (c) attempts to borrow theories from other disciplines have not been successful.

Research limitations/implications: This is a broad and complex field and we have been necessarily selective in our evaluation. We do, however, signpost our additional writing in this area to compliment the word limit we face here.

Practical implications: Both organizations and researchers need to think more robustly about the meta-theoretical underpinnings of the relationship between HRM practices and their capacity to enable people to perform. We hope to trigger renewed meta-theoretical debate in this direction.

Originality/value: To our knowledge this is the only *critical* review of the meta-theoretical underpinnings of the HRM-P field.

Keywords: Human resources management, performance, critical realism, explanation, prediction.

Introduction

Many empirical researchers claim to have identified a measurable link between an organizations' HRM practices and its performance, referred to hereafter as the HRM-P link. Rather than present dozens of references to this research, we refer the reader to four reviews of the literature by Wright & Boswell (2002); Godard (2004); Boselie, Dietz & Boon (2005) and Wall and Wood (2005). There is, however, a fault-line running through this paradigm: empirical research on the HRM-P link is seriously *undertheorized*. Whilst many empirical researchers are oblivious to this problem, others recognize it and carry on regardless, and some attempt to resolve it by making reference to theory or theories that might underpin their empirical analysis. With the exception of Rogers & Wright (1999) most empirical researchers appear to believe that *appropriate theories will emerge and develop if researchers continue doing more, and/or better, empirical work -* as the following two example 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 and, moreover, the few attempts to identify appropriate theories have made very little headway. Empirical 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 empirical researchers in the HRM-P paradigm having little or no insights into *meta-theory*, by which we mean *philosophy of science*, *methodology*, *ontology* and *epistemology*. It is of course, always possible that these researchers are, privately, insightful meta-theoreticians, but there is no evidence of this as the literature is marked by an almost total lack of meta-theoretical discussion. Indeed a recent survey of 467 articles on HRM by Hoobler & Brown Johnston (2005: 668) found just *one* article on meta-theory – an additional article by Ferris, Hall, Royle and Maartocchio (2004) brings this to *two* articles. It seems highly unlikely that the problem of under-theorization will be resolved by continuing to neglect meta-theory. And this brings us to our paper.

This paper is the only attempt we are aware of to engage in the kind of meta-theoretical reflection missing from empirical 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 actually far worse than is usually recognised; and (c) attempts to borrow theories from other disciplines have 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. Part 3 tackles the possibility that theoretical underpinnings for empirical research on the HRM-P link might come from other disciplines such as economics. We conclude by sketching the beginnings of an alternative meta-theoretical approach to the investigating the HRM-P Link.

Before we start, we feel it necessary to clear up three potential sources of confusion. First, when we refer to 'empirical research on the HRM-P link', or to 'the paradigm,' we exclude those who do attempt

to *explain*, without being *preoccupied* with *empirical* techniques, the nature of the causal mechanisms and processes that may govern the relation between HRM and performance (e.g. Bowen & Ostroff 2004; Boxall 2003; Elias & Scarbrough 2004; Edwards & Wright 2001; Harney & Dundon 2006; Murphy & Southey 2003; Pauwe 2003 & 2005; Purcell *et al* 2003; Knox & Walsh 2005; Truss 2001). Second, the meta-theoretical problems discussed below are found in empirical research in wider social and managerial science and cannot, therefore, be explained away by noting that HRM, and especially, research on the HRM-P link, is relatively immature (cf. Rogers & Wright 1999: 311). Indeed, these meta-theoretical problems are found in almost all research operating (implicitly or explicitly) from a positivist perspective – although we prefer the label 'scientism' to refer to the meta-theory underpinning empirical research on the HRM-P link (Fleetwood & Hesketh 2006 & 2007, Hesketh & Fleetwood, 2006). Third, we are not suggesting that there is no connection between HRM practices and increased organisational performance, merely that even if an empirical association could be established, the association would remain under-theorized, and hence unexplained.

1. Reflections upon the nature of 'theory'

Serious discussion of the nature of theory is uncommon in social science in general, and with one exception (Wright & McMahan 1992: 296) is totally lacking in empirical research on the HRM-P link. We turned to wider management literature for a starting point.

[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 researcher's 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 of qualitative, characterize; theory supplies the explanation for the characteristics... Combing Hows and Whats produces the typical model, from which testable propositions can be derived. (Whetten 1989: 490-1, numbers added. See also, Bacharach 1989: 498; 40; Sutton and Straw 1995: 376; and Kane 1991: 247.)

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

On this definition, it is uncontentious to claim that research on the HRM-P link *does* have theory, at least in terms of the predictive dimension of theory. Indeed, the research is littered with references to 'testing the predictions' of the theory or model or some such. It is, by contrast, extremely contentious to claim that research is under-theorized. Whatever the merits of formulating and testing predictions, this process cannot generate explanation. *Prediction is not explanation*. 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 occurrence of the latter does not explain measles. Whilst empirical researchers (claim to) predict improved organisational performance following the creation of certain HR practices, the occurrence of the latter do not *explain* the increased performance. Comments to the effect that 'the independent variables explains 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. To lack a theory, therefore, means to lack explanation. Even if the research can predict, and has predictive power, it cannot explain, and lacks explanatory power. Under-theorisation, and lack of explanatory power, then, manifest in the following problems:

First, the so-called *Black Box Problem* pervades much of the writing on the HRM-P link. Research that lacks a theory also lacks an explanation of what the selected HR practices actually do to influence organisational performance, and is, thereby, guilty of treating the workplace as a *'Black Box'*. In a *'Black Box'* inputs are translated into outputs, with no explanation of what goes on in between. The sub-title of Purcell *et al* (2003), *Unlocking the Black Box*, reflects this concern. Becker, Huselid & Ulrich (2001: 111) recognise the problem: 'Ultimately, you must have a persuasive story about what's in the black box. You must be able to throw back the cover of that box and reveal a plausible process of value creation from HRM to firm performance.'

A second problem is that of *measurement without theory*. Research that lacks a theory also lacks an *adequate rationale* for the choice of phenomena that will eventually become the variables. Such a

theory is, thereby, guilty of 'measurement without theory.' The rationale often boils down to the claim that the selected variables are simply those that have bulked large in previous literature.

We hope, at this point, to have at least raised the possibility that the problems besetting empirical 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 easily be obtained from other disciplines. We expand this argument in the following section.

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

When we first started to investigate empirical research on the HRM-P link, we also assumed this paradigm was under-theorized: and in one sense, this is correct. In another sense, however, it is not. Far from there being too little theory, there is actually, an embarrassment of riches. Scattered throughout the literature are references to a bewildering array of approaches, perspectives, frameworks, typologies, studies, theories, models, maps, or *accounts*, as we will refer to them generically, all at various levels of abstraction, generality, universality, particularity, concreteness and micro or macro orientation. In no particular order, those *accounts* we are aware of are as follows:

- the normative model
- the descriptive-functional model
- the descriptive-behavioural model
- the critical-evaluative model
- the Michigan, Harvard, Guest's and Warwick models
- HRM as a map
- the universalistic, internal fit, best practice or one size fits all approach
- the bundling or internal fit approach
- the contingency or external fit approach
- contingency theory
- structural contingency theory
- the configurational approach
- individual-organisational performance linkages
- General Systems Theory

- the personnel systems & staff alignment perspective
- the partnership or stakeholder perspective
- the New Economics of Personnel
- the strategic contingency approach;
- strategic, descriptive and normative theories of HRM
- expectancy theory
- action theory
- strategic reference points theory
- systematic agreement theory
- discretion theory
- ability, motivation and opportunity (AMO) theory
- control theory
- balanced scorecard approach
- the job characteristics model
- social exchange theory

- labour process theory
- the behavioural perspective
- the role behaviour perspective
- population ecology
- cybernetic models
- agency theory
- transaction cost economics
- the resource-based theory/view
- power/resource dependence theory
- human capital theory

- organizational learning theory
- information processing theory
- Institutional theory
- New Institutional theory
- evolutionary theory
- co-evolutionary theory
- absorptive capacity theory
- critical theory
- Marxist theory
- Foucauldian theory

See Hiltrop 1996; Jackson & Shuler 1995; McMahan, Virick, & Wright 1999; and Ferris, Hall, Royle & Martocchio 2004 for overviews of at least some of these approaches).

Jackson & Schuler's double edged comment half grasps the problem: 'Although imperfect, potentially useful theories are relatively plentiful' (1995: 256). Whereas they see the relative plentitude making up for the imperfect nature of the theories on offer, we do not. First, a thousand imperfect theories may not generate a perfect, or even a good, theory. Second, the fact that there are so many theories, and that they exist in a kind of 'theoretical jumble,' strongly suggests that they are not being taken seriously by empirical researchers. In an exceptionally revealing, throwaway comment, Wright, Dunford & Snell (2001: 706) mention how many empirical studies 'at least pay lip service' to the theoretical perspective known as the Resource Based View (RBV). What is true for RBV is, arguably, true for many other theories: they are mentioned in empirical research on the HRM-P link, but often by way of a fig leaf to cover theoretical nakedness. None of this means these theories are necessarily inappropriate: some are, and some are not. The problem is without a clear idea of what a theory is it is going to be an uphill struggle to make any headway in sifting the wheat from the chaff.

Since it would require a book to evaluate this bewildering array of accounts, not to mention seriously taxing our multi-disciplinary knowledge, 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 undertheorisation. The aim of the next section is to show that even researchers such as these who appear committed to scientism, are skeptical of the theories that come within their orbit.

Jackson & Schuler

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 how 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 than 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, quantitative 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 (see below). 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.

Guest

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 an early paper he identified 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. By 1999 he identified '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. We will attempt this by reference to the different themes within the HRM-P literature Guest identifies.

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 of 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 will become clear in the following section, this approach is not a suitable theoretical basis for empirical research on the HRM-P link. The same goes for Human Capital theory – we do not elaborate here 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. This is in contrast to the new

world of metrics identified by Guest. 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 focusing 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, we are not convinced this approach amounts 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, this perspective does 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 which, as we will see shortly, is beset by its own theoretical problems. Moreover, the very uniqueness and inimitability of the configuration of HR practices 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.

Way & Johnson

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)*. We will deal with each of these in turn.

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 again, exactly what the organizations' leaders should do on Monday morning to meet these outcomes is left unclear.

What worries us about Way & Johnson's work, is that in the end, they see the role of theory as little more than a set of statements providing researchers with a 'theoretical foundation from which they can generate predictive SHRM models' (*ibid*: 16). We think a theory should do more than this (see Fleetwood & Hesketh (2007) where we show that a theory should be, but frequently is not, more than a vehicle for delivering predictions).

Whilst we applaud attempts by Jackson & Schuler, Guest, and Way & Johnson to identify potential theories that might underpin research on the HRM-P link, if empirical researchers on the HRM-P link remain unwilling, or unable, to engage in meta-theoretical reflection, and remain committed to the idea that theory (whatever it is) will emerge and develop via more, and/or better, empirical work, then they are unlikely to make little theoretical headway. Indeed, we see the following problems remaining.

First, it is unclear what it is about the multitude of accounts 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.

Second, 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 accounts '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 undertheorised.

Third, empirical researchers on the HRM-P link are unlikely to just accidentally gain a clear insight into what a 'theory' actually is. And without knowing what a theory is, these researchers are most unlikely to be able to identify potential theories that might fruitfully underpin empirical research on the HRM-P link. Moreover, these researchers are most unlikely to develop such an insight, precisely because they remain committed to the idea that theory (whatever it is) will emerge and develop via more, and/or better, empirical work.

Fourth, the idea that theory will develop via more and/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. Unfortunately, however, there simply is no sound theoretical position for research on the HRM-P link to start the initial phase of the research cycle.

Fifth, 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 conversely, when empirical work suggests the existence of a relation that cannot subsequently be accounted for theoretically.

The turn to multidisciplinarity

Some empirical researchers attempt to address the lack of theory by introducing ideas from beyond the HRM-P literature, and indeed beyond the HRM literature altogether. Whilst recourse to multidisciplinarity is not only a perfectly valid way to proceed, and one we enthusiastically endorse, what worries us is the way it is carried out. Empirical researchers in the HRM-P paradigm appear not only to lack meta-theoretical insights they also appear committed to scientism. Without meta-theoretical insight, however, raiding other disciplines for a theory that can then be 'bolted on' to the existing scientistic meta-theory, simply introduces a new set of problems.

Whilst theories from other disciplines abound, it is actually very difficult take one of these theories and 'bolt it on' to the existing scientistic meta-theory. This difficulty arises because not every theory lends itself to a scientistic approach. Consider one example. We would not anticipate insights on power from Foucauldian theory to be amenable to (say) regression analysis. If somehow an empirical researcher attempted such a feat, this could only be undertaken by losing the sophisticated insights from Foucaultian theory in the search to quantify power.

If a glance at other disciplines reveals theories that entertain phenomena like power, that are impossible to quantify in a meaningful way, it is highly likely that there may be other non-quantifiable phenomena, that are also incompatible with scientistic meta-theory. What are empirical researchers on the HRM-P link, committed as they appear to be to scientism, to do when faced with this state of affairs? In our opinion, they would either attempt to derive (meaningless) proxies or simply ignore the theories that entertain these problematic phenomena. The point is not lost on Pfeffer, one of the more sceptical commentators from the paradigm, who writes: 'Unfortunately, in almost all aspects of organizational operations, what is most easily measurable and what is important are only loosely related' (Pfeffer, 1997: 360).

A similar problem arises when specific theories are attached to specific disciplines and schools within disciplines. When for example, economics is raided for theoretical insight, it tends to be *neoclassical* economic theory that is drawn upon, especially schools such as New Institutionalism and sub-branches

such as Human Capital Theory and The Economics of Personnel Management. Non-mainstream schools of economics such as Austrian, (Old) Institutional, Feminist, Marxist, Post-Keynesian and Social economics are, typically, overlooked because the meta-theoretical perspective upon which a great deal (although not all) of the theoretical insights emanating from these schools is incompatible with scientism. 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 a full spectrum of theories, approaches and techniques' (emphasis added). On the contrary, a very narrow spectrum of theories has been considered.

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 areas we have limited understanding of. Problems within the disciplines of economics and psychology with, for example, the concept of *rationality*, do not cease to be problems when they are imported into HRM. 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-neoclassical economists either reject the notion of equilibrium altogether, or reject the idea of a convergence to equilibrium (Fleetwood 1995).

Let us pursue the problems in more depth via the hugely influential work of Ichniowski, Shaw & Prennushi (1997) who make reference to neoclassical 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 lengthy ethnographic studies that attempt to gain a sophisticated understanding and explanation (answers to Why questions) of phenomena like incentive pay of flexible working, because such a study of each site would take months. This is, of course, inevitable and is a key difference between using ethnographic 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?

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 an 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 '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 naïve. 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 comes 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 neoclassical 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 theory and explanation for the empirical relationships Ichniowski, Shaw & Prennushi's empirically estimate. Let us consider this possibility.

Notice immediately that shifting from empirical research to the neoclassical labour economic theory they cite, involves a *significant meta-theoretical shift*. Ichniowski, Shaw & Prennushi 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. The meta-theoretical approach used in the neoclassical labour economics theories they cite, however, is from an *entirely different tradition*. This is bit like trying to mix oil and water.

The models developed by these neoclassical labour economists are what economist Pencavel (1994) pejoratively refers to as 'toy' theories. 'Toy' theories are purely algebraic theories or models not designed to be confronted with data: they 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

peer pressure =
$$P(e_i; e_j..., e_N, a_i, a_j..., a_N)$$

The peer pressure that worker I feels depends generally on his own effort, e_i ; on the effort of his peers e_i ..., e_N and on the actions that he and his peers may take a_i ,..., 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 P1 < 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.'

Now, many of these claims and assumptions are not only 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 of realisticness (Lawson 1997: 110).

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.

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 on the HRM-P link. 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 & Prennushi cannot, therefore, legitimately find the missing theory in neoclassical 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. This 'escape route' is not available. For further consideration of neoclassical economic theory, its meta-theoretical problems, and alternative, non-neoclassical economics, see Downward 2003; Fleetwood 1999; Lawson 1997 & 2003.

Conclusion

As will now be clear we are opposed to the view that the examination of the HRM-P link is a statistical end game. On the contrary, where statistical measurement ends, explanation begins. Statistical analysis should not be ruled out *per se* but we want to stress by way of conclusion that the organizational settings in which HR *enables* as opposes to *causes* performance—good or bad—is a social setting typified by ontologically 'open' as opposed to 'closed' social systems. Systems are defined as 'closed' when they are characterized by event regularities, and 'open' when they lack event regularity. In short, far from being predictable, the social world is complex, contingent and emergent. What transpires in one organizational setting does not necessarily prevail in another. The corollary is the requirement of an alternative meta-theory recognizing that HR's influence on performance represents an unstable equilibrium of enabling entities and mechanisms that may or may not operate and/or endure.

Our preferred meta-theoretical perspective to explain the workings of open HR systems is that of critical realism (see Hesketh & Fleetwood, 2006 for an extended discussion). Critical realism is a meta-theory rooted in ontology. The social world is seen to consist of human agents and social structures – by which we mean institutions, mechanisms, resources, rules, conventions, procedures and so on. Notably, critical realists emphasise the transformational nature of the social world, whereby agents draw upon social structures (etc) and in so doing, reproduce and transform these same structures.

Crucially, critical realists make great play of open and closed systems. Event regularities, and hence closed systems are, however, extremely rare phenomena, especially in the social world. An organization consists of a cluster of social structures, institutions, mechanisms, rules, resources, conventions, habits procedures etc, along with the human agents that activate them. Because the entity usually does whatever it does in virtue of the interaction of the totality of causal components, we need a term to refer to them as a whole. The term we use is a *generative ensemble*.

We can think of the firm as a generative ensemble that enables or causes the production of goods and services. Or we can think of the workplace, the shopfloor, the work-system or the team, as a complex web of interlocking generative ensembles, sub-configurations, sub-sub-configurations and so on. Much depends upon the questions we are asking, and the level of abstraction we are using. Certain business processes manifest themselves as sub-configurations more readily than others. Rarely, however, do such configurations, sub-configurations and sub-sub configurations lend themselves to measurement. This complexity is routinely overlooked by the HRM-P literature that often utilises simplistic and overarching HR structures as proxies thereby ignoring the influential and complex underlying causal—or enabling—mechanisms at work in the social processes underpinning such HR work practices.

To the recognition of generative ensembles operating in open systems we add a third concept. *Complex causality* refers to a situation where the cause of an event is not assumed simply to be the event(s) that preceded it (which would be some kind of simple causality), but rather is the entire conflux of interacting causal phenomena. Complex causality is connected to what we call *robust explanation*. Providing a history of a phenomenon, and hence explaining it, could be interpreted to mean giving information about the underlying mechanisms and structures, along with (if we are dealing with social phenomena) the human agency that reproduces and transforms these mechanisms and structures.

Because of the openness of social systems, events cannot be *inductively* predicted, or predicted as *deductions* from axioms, assumptions and laws – as sketched above. But the social structures, institutions, mechanisms, rules, resources etc. that human agents draw upon in order to initiate action, *can* be *retroduced* and their operation uncovered and *explained*. For critical realists, then, retroduction replaces induction and deduction as modes of inference, and explanation replaces prediction as the key objective of science. That our research evidence suggests this way of thinking mirrors the explanation-through-experience utilised by many HR professionals only lends further weight to our claim that unleashing the talents of people to the benefit of the organization involves more than simply replicating prescribed HR architectures (e.g. see Ulrich, 1997) and moving beyond closed notions of prediction to open ended, meta-theoretically informed forms of explanation. The challenge now for future HRM-P link writers is to develop and utilize the alternative meta-theoretical options available in order to better understand how HR enables people to perform.

Acknowledgement

We are extremely grateful to the two enormously helpful anonymous reviewers of the first draft of our paper.

References

- 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.
- 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. & Ulrich, D. (2001) *The HR Scorecard: Linking People, Strategy and Performance*. Harvard: Harvard Business School Press.
- Boxall, P. (2003) 'HR Strategy and Competitive Advantage in the Service Sector' Human Resource Management Journal Vol. 13, No. 3, 5-20.
- Boxall, P. Purcell, J. (2003) Strategy and Human Resource Management, London: Palgrave Macmillan.
- 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.
- 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
- Ferris, G. Hall, A. Royle, M. Martocchio, J. (2004) 'Theoretical Development in the Field of Human Resources Management: Issues and Challenges for the Future' *Organizational Analysis*, Vol. 12, No. 3, 231-254.
- Fleetwood, S. (1999) Critical Realism in Economics: Development and Debate, Routledge: London, pp 273.
- Fleetwood, S. & Hesketh, A. (2006a) 'High Performance Work Systems, Organisational Performance and (Lack of) Predictive Power,' *Journal of Critical Realism*, Vol. 5, No. 2, 228-250
- Fleetwood, S. & Hesketh, A. (2006b) 'HRM-Performance Research: Under-theorised and Lacking Explanatory Power,' *International Journal of Human Resources Management*, Vol. 17, No. 12, 1979-1995
- Fleetwood, S. Hesketh, A. (2008) *The Performance of HR: Towards a New Meta Theory,* (Cambridge: Cambridge University Press).
- 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.
- Harney, B. Dundon, T. (2006) 'Capturing Complexity: Developing an Integrated Approach to Analysing to Analysing HRM in SME's' *Human Resources Management Journal*, Vol. 16, No. 1, 48-73.
- Hesketh, A. & Fleetwood, S. (2006) Beyond Measuring the HRM-Organizational Performance Link: Applying Critical Realist Meta-theory, *Organization*, Vol. 13 No. 5, pp. 677-699
- 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. Prennushi 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.
- 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.

- 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.
- Paauwe, J, Boselie, P. (2005) 'Best Practices...In Spite of Performance: Just a Matter of Imitation?' International Journal of Human Resource Management, Vol. 16, No. 6, 987-1003.
- Pencavel, J. (1994) Labour Markets Under Trade Unionism: Employment, Wages and Hours, Oxford: Blackwell.
- Pfeffer, J. (1997) 'Pitfalls on the Road to measurement: The Dangerous Liaison of Human Resources with the ideas of Accounting and Finance', Human Resource Management, Fall, 36(3), pp. 357-365.
- Purcell, J. et al (2003) Understanding the People and Performance link: Unlocking the Black Box, London: CIPD.
- 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
- Sutton, R, Straw, B. (1995) 'What Theory is Not' *Administrative Science Quarterly*, Vol. 40, No. 3, 371 85.
- 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.
- 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. McMahan, G. (1992) 'Theoretical Perspectives for Human Resource management', *Journal of Management*, **18**, 2, 295-320.

Wright, P. Boswell, W. (2002) 'Desegregating HRM: A Review and Synthesis of Micro and Macro Human Resource Management Research' *Journal of Management*, Vol. 28, No. 3, 247-276.

Theorising Under-Theorisation in Research on the HRM – Performance link

Steve Fleetwod & Ant Hesketh

- Dr. Steve Fleetwood teaches employment relations in the department of Organisations, Work & Technology, in Lancaster University Management School. He is Director of the Institute for Advanced Studies inaugural programme on the Knowledge Based Economy.
 - Tel: 01524 594040
 - E-mail: <u>s.fleetwood@lancaster.ac.uk</u>
- Dr. Anthony Hesketh is the founding director of the new Centre for Performance-Led HR at Lancaster University Management School and teaches in the department of Management Learning and Leadership. His research focuses on the links between HR and performance in various guises.
 - Tel: 01524 593451
 - E-mail: a.hesketh@lancaster.ac.uk

Note to the editor

We are extremely grateful to the reviewers, especially reviewer 1 for some of the most constructive reviewing we have ever seen. These comments were extremely helpful although.

Reviewer 1's preamble

We agree that the meta-theoretical problems discussed below are found in empirical research in wider social and managerial science and use this to comment in passing to reject the view that the problems are due to HRM-P being relatively immature (p3).

1. Citations in the text.

We have reduced the number of citations in the text, but cannot do much more as we have also removed all footnotes.

2. Incomplete references

We are aware of the literature the reviewer cited. Rather than present dozens of references (and add to problems noted in point 1) we simply refer the reader to four reviews of the literature by Wright & Boswell (2002); Godard (2004); Boselie, Dietz & Boon (2005) and Wall and Wood (2005). These provide all the references necessary to follow the debates. We have included some of the references suggested elsewhere in the paper (p1).

3. General overview

The first part of section 3 entitled 'In search of theory to underpin research on the HRM-P link' has been significantly modified. We have re-written this to emphasise the following (p6). When we first started to investigate empirical research on the HRM-P link, we also assumed this paradigm was under-theorized: and in one sense, this is correct. In another sense, however, it is not. Far from there being too little theory, there is actually, an embarrassment of riches. Scattered throughout the literature are references to a bewildering array of approaches, perspectives, frameworks, typologies, studies, theories, models, maps, or accounts, as we will refer to them generically, all at various levels of abstraction, generality, universality, particularity, concreteness and micro or macro orientation. We then list these accounts. We prefer to do this than simply to focus on the four main 'theories' suggested by the reviewer for reasons that should become clear in the sections itself.

4. What theory is and is not

We note that the meta-theoretical problems discussed below are found in empirical research in wider social and managerial science.

5. Predictive value

We appreciate and agree with the sentiments of the reviewer here. As is clear from our critique of economic theory, empirical research need not end with prediction. Indeed, our contention is that where prediction ends, explanation begins.

6. Hiltrop

We have removed specific references to Hiltrop

7. Multidisciplinary backgrounds

We agree with the reviewer that HRM is not a discipline and so have modified our language to remove references to 'our own' discipline. We now write: 'This is easily overlooked for the simple reason that we tend not to be as well versed in areas we have limited understanding of.' (p13).

8. Bundles etc.

We have removed specific references to bundle of practices, techniques etc, but we do agree with the terminology the reviewer suggests and will be using this in future work.

9. Lazear and economists

We agree with the reviewer that some labour economists of the non-neoclassical, non-orthodox, or heterodox variety are much better than the likes of Lazear whom we cite. Indeed, one of us would consider himself to be a labour economist, but definitely of the heterodox variety. However, we cite Kandel & Lazear (and a couple of other neoclassicals) because these are referred to by empirical researchers on the HRM-P link. We have clarified the section slightly so that it is clear that the objection is to neoclassical economists only and not simply all economists (p 16).

Reviewer 2

1. Positivism

We do as the reviewer suggests, and explain that what we see as meta-theoretical problems are found in almost all research operating (implicitly or explicitly) from a positivist perspective. We add that we prefer the label 'scientism' to refer to the meta-theory underpinning empirical research on the HRM-P link (p3).

2. Existence of a link?

We are not suggesting that there is no connection between HRM practices and increased organisational performance, merely that even if an empirical association could be established, the association would remain under-theorized, and hence unexplained (p3).

3. Alternative

We address this explicitly in the conclusion.