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HRM-Performance Research: Under-theorised and Lacking Explanatory Power

Abstract. *The search for a measurable link between HR practices and organizational performance is currently preoccupying HR professionals, consultants and academics. Empirical research on this HRM-P link is, however, marred by a serious problem: it is seriously under-theorised. Whilst some (but by no means all) researchers on the HRM-P link are aware of the problem, none are prepared to face up to the scale of the implications. Without theory, research on the HRM-P link lacks explanatory power. The only 'solution' on offer (the assertion that theory will develop via more and/or better empirical work) has been less than successful: empirical research has multiplied with little or no theoretical development. Nor can it. The under-theorisation and lack of explanatory power is not accidental, but rooted in the meta-theoretical perspective that underpins empirical research on the HRM-P link, namely positivism - or scientism as we call it. The paper draws upon critical realist meta-theory to reveal exactly why scientism encourages under-theorisation and lack of explanatory power and, furthermore, why the 'solution' on offer cannot solve the problem.*

Introduction[1]

The professional HR literature is currently awash with articles dedicated to measuring, and reporting upon, the alleged measurable link between an organisations' HRM practices and its performance – referred to here after as the HRM-P link. [2] The government too is interested in this link. Indeed, later this year over one thousand of the UK's leading businesses will be required to 'account for people.' Businesses must 'communicate clearly, fairly and unambiguously the Boards's current understanding of the links between the Human Capital Management policies and practices; its business strategy and its performance [in a way] that is balanced and objective (Kingsmill 2003: 4). Underpinning claims from the professional HR community and government, are, dozens of empirical research papers that have appeared over the last decade. The overriding message emanating from all these sources is that there is a measurable link between an organizations' HRM practices and its performance and that empirical evidence proves it.[3]

Supporting and sustaining research on the HRM-P link is a 'scientific' approach. Boudreau & Ramstad (1997: 343), for example, refer to 'scientific studies;' Murphy & Zandvakili (2000: 93) suggest that 'scientific measures be used to evaluate the effectiveness of HRM practices' referring to 'data collected by scientific methodology;' and Brown refers to the 'science of human capital measurement' (2004: 40).

There is, however, a problem with this 'scientific' approach to empirical research on the HRM-P link: it is *seriously under-theorised*. Some (but by no means all) of those involved in this research are aware of the problem: the following comment exemplifies the point.[4]

> Much of the writing in the field of SHRM has been concerned with either practical advice or presentation of empirical data. Without good theory, the field of SHRM could be characterized as a plethora of statements regarding empirical relationships and/or prescriptions for practice that fail to explain why these relationships exist or should exist. If, in fact, the criticism that the field of SHRM lacks a strong theoretical foundation is true, then this could undermine the ability of both practitioners and researchers to fully use human resources in support of firm strategy (Wright & McMahan, 1992: 297).

Many of those who are aware of the problem of under-theorisation,[5] suggest, or strongly imply the following 'solution': *theory (whatever it is) will emerge and develop via more, and/or better, empirical work*: the following comment exemplifies the point.[6]

> 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).

This 'solution' is, of course, rooted in the well-known idea of a cyclical research process. We start with theory, generate hypotheses from that theory, test these hypotheses, and then return to the initial theory which can be strengthened, abandoned or modified. This idea has attained hegemonic status, and questioning it is now considered heretical. And yet this 'solution' has been less successful than many might have hoped. Empirical research has multiplied, with little or no theoretical development, and we are unaware of any significant theoretical breakthroughs derived from empirical research. It is precisely this lack of success that motivates our analysis.

We start this paper by defining the meta-theory that underpins empirical research on the HRM-P link, namely ***science/scientism***. We then engage ***critical realism***[7] to analyse a range of meta-theoretical concepts to build up a clear idea of what this meta-theory entails. Once we have a degree of clarity we will be in a position to understand why under-theorisation and lack of explanatory power are not accidental, but are rooted in this scientific/scientistic meta-theory. Moreover, we are also in a position to understand why the solution on offer cannot solve the problem.

Caveats

Because meta-theoretical critique is not common[8] in this literature, we feel it necessary to make a few comments to clarify what our critique does and does not involve.

First, we are fully aware of, let us say, 'political' critiques of HRM in general, and of managerial accounts of high performance work systems, deriving, for example, from Labour Process Theory, Critical Management Studies and Interpretive or Phenomenological approaches.[9] We are also aware of critiques coming from, let us say, postmodern, poststructural, social constructionist and/or linguistic or

discursive perspectives.[10] Whilst we have sympathy with much of this critical work, we are engaged in a different form of critique, namely, a critique aimed specifically at meta-theory.

Second, we exclude from the category 'science/scientism' and, thereby, from our critique, those writers who do attempt to *explain*, without being preoccupied with metrics and measures*,* the nature of the causal mechanisms and processes that may govern any alleged empirical HRM-P link.[11] This approach conforms, at least at the meta-theoretic level, to what critical realists refer to as a causal-explanatory method (Fleetwood 2004).

Finally, a paper that is exclusively critical, as this paper is, will always run into the charge of mere negativity. To be asked, however, to present a critique that is sophisticated enough to be taken seriously, and then be asked to provide an alternative as well, is simply asking too much of one paper. In fact, we have a book coming out (X & Y 2006) where we elaborate the critique and the alternative, at length.

Defining science/scientism

The first step is to decide upon what we are going to call the meta-theoretical perspective that pervades current thinking on the HRM-P link. Whilst the obvious candidate is *positivism*, adopting this label may embroil us in a distracting debate about which version of positivism we have in mind – because there are many versions. We deliberately opt instead for the far more imprecise compound term 'science/scientism or derivatives such as scientific/scientistic perspective. This requires a little explaining.

To the extent that meta-theoretical reflection occurs, the general approach to research on the HRM-P link is referred to as 'science' or a 'scientific approach' or some derivative. This 'scientific' approach is never defined, perhaps because it does not have to be: most of those researching the HRM-P link would, we suspect, be perfectly happy being associated with 'science' in some shape or form. Critics, however, argue that this is really some kind of spurious science and that 'scientism' or a 'scientistic' approach is a more suitable description of what goes on in research on the HRM-P link. This is longstanding debate, invoking arguments about the relationship between the meta-theory applicable to (some areas of) natural science, and social science. It is a debate that has somehow gotten lost in research on the HRM-P link.

The *Collins Dictionary of Sociology* (1995) defines scientism as 'any doctrine or approach held to involve oversimplified conceptions and unreal expectations of science, and to misapply 'natural science' methods to the social sciences.' Hughes and Sharrock (1997: 208) define scientism as 'those philosophies such as positivism, which seek to present themselves as having a close affiliation with the

sciences and to speak in their name, and which then go on to fetishize the so called scientific standpoint.' For us, then, a perspective is scientistic if it loosely refers to the employment of methods and techniques allegedly similar to (some aspects of) natural science, without actually specifying what these methods and techniques are and why they are appropriate to social science. In order to appeal to both advocates and critics, therefore, we define the meta-theoretical perspective that grounds empirical studies on the HRM-P link as science/scientism or derivates.

Science/scientism and its meta-theoretical presuppositions

This section works its way through a series of concepts (i.e. deductivism, the nature of events and their alleged regularities, closed systems, prediction, hypotheses and Humean causality), to build up a clear idea of what meta-theory underpinning research on the HRM-P link entails. Once we have a degree of clarity we will be in a position to understand exactly why under-theorisation and lack of explanatory power are not accidental, but are rooted in science/scientism.

Science/scientism's generally accepted method appears to be some (unspecified) variant or combination of the covering law model, deductive nomological model, inductive-statistical model, or hypothetico-deductive method. Following Lawson (1997; 2004) we refer to this variant as the *deductive method* or simply *deductivism*. From the perspective of the ***deductive method or deductivism*** to 'explain' something is to predict a claim about that something as a deduction from a set of initial conditions, assumptions, axioms, and law(s) or some other regular pattern of events. Deductivism involves the following steps:

a) Laws or theories about a phenomenon
b) Statements about initial conditions
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c) The phenomenon is explained and predicted as a deduction from (a) and (b)

And in the context of the HRM-P link, we might say something like:

a) Bundles of HRM practices are regularly conjoined and statistically associated with increased organisational performance (laws or theories)
(b) The HRM bundle consists of work teams and a performance related pay scheme
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c) Increased organisational performance is explained and predicted as a deduction from (a) and (b)
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d) Theories or laws are often tested via their predictions.

This last point (d) is important. Research on the HRM-P link is preoccupied with what is referred to variously as testing the prediction, testing the hypothesis, testing the theory, testing the model, testing the model's predictions, finding the predictors of their dependent variable and so on. The terminology

varies and, it must be said, is highly ambiguous, but the practice is well known. In what follows we will refer (where possible) to *testing the hypotheses*.

Before we delve any deeper, let us try to get a rough idea of what deductivism involves in research on the HRM-P link. Although variations exist in the techniques used, the phenomena that are measured, and the metrics and measures that are created we can say that: *HR practices and organisational performance are quantified using appropriate metrics and measurements in order to generate empirical data. Various statistical techniques are then employed on this data to identify the existence/non-existence of an association or link between HR practices and organisational performance via hypothesis testing.*[12]

Ontology, epistemology, events and their regularities or constant conjunctions

Events are the building blocks of empirical research: they are the things researchers observe and collect data on. An event might, for example, be: the introduction of team working; the existence of a union; the duration of a training programme; a change in the sophistication of HR architecture; an increase in productivity and so on. If and when these events are observed, recorded, counted or measured (or approximated by proxy measures) in terms of some quantity or degree they become variables. As Whetten (1989: 491) puts it: 'The primary difference between propositions and hypotheses is that propositions involve concepts whereas hypotheses require measures.' *Variables, then, are quantified events*.

Although science/scientism has traditionally been, and still remains, preoccupied with epistemology, an ontology is always presupposed – explicitly or implicitly. In this case, the ontology consists of what can be observed and is, therefore, of observed *events*. Because these objects are confined to experience the ontology is *empirical*; and because these objects are thought to exist independently of one's identification of them, it is *realist.* The ontology is, therefore, *empirical realist*. What are experienced are unique, atomistic events. These events cannot be other than atomistic, since anything about them, or any connection or relation between them is impervious to experience – otherwise the nature of the connections would require prior explanation, thus undermining the explanatory power of sense data.

It is worth pointing out here that critical realists do not argue that advocates of scientism/science are committed to the claim that events in sense experience are all that exist. Instead they argue that advocates transpose questions of ontology into questions of epistemology so that *in effect*, they are committed to the claim that all that exists *vis-à-vis* scientific enquiry are events in sense experience. This is important, because it means that science/scientism can neither countenance, nor deal with, unobservable entities such as *powers* and *capacities*. This is a crucial point for alternative accounts of causality - see below. It is also a crucial point for the investigation of powers and capacities. If, as seems likely, a workforce possesses

powers for things like creative, imaginative, ingenious, self motivated action, and if these powers can exist yet be unexercised, then an empirical realist can neither countenance, nor deal with them (Fleetwood 2004). The same goes for resource based theories.

The ontology, then, is not only of events, it is also of *atomistic* events. If *particular* knowledge is gained through observing atomistic events, then *general*, including *scientific*, knowledge is only available if these events manifest themselves in some kind of pattern: a flux of totally arbitrary events would not result in knowledge. Scientific knowledge is, therefore, reliant upon the existence and ubiquity of event regularities or constant conjunctions of events – we use these phrases interchangeably. This is an important claim so let us spend some time unpacking it.

From the *scientific/scientistic perspective*, to observe two (or more) events simply occurring is not very illuminating whereas to observe two events occurring in *regular succession*, such that whenever event *x* occurs, event *y* regularly accompanies it, is illuminating. To observe a firm introducing HR practices, whilst also observing increases in productivity is not very illuminating. Whereas to observe that the introduction of HR practices and increases in productivity occur in regular succession, such that whenever a HR practice is introduced, productivity regularly increases, is illuminating. Moreover, the more often we observe the introduction of HR practices and increased productivity regularly succeeding one another (either in the same firm, or in many firms), the more illuminating the observation is said to be. This is, in part, why researchers seek to observe as many cases of some event regularity as possible (or practicable). If we only observed in one firm, at one time, a bundle of HR practices being constantly conjoined with increased productivity, we would perhaps claim to know a little. But if we observed in more than one firm, and at more than one time, a bundle of HR practices being constantly conjoined with increased productivity, we would claim to know far more. This is, of course, why so many papers on the HRM-P link start off by noting that many studies have found a relationship between some HR practices and firm performance – see footnotes 2 & 3.

Event regularities

Event regularities are the basis upon which predictions or hypotheses are tested. A prediction is a statement about what will happen to one event when another event or events occurs or changes. A hypothesis is a statement about what might *regularly* happen to one event when another event (or events) occurs or changes.

Hypotheses express these events in quantitative form, that is, as variables, and the concern is with what will happen, or what regularly happens, to the *magnitude* of one variable when the *magnitude* of another variable (or variables) occurs or changes. The key point, however, is that predictions and hypotheses are only intelligible if they are expressed in terms of *regularities* between events or variables. For

example, in one of the defining, and now widely cited papers in the field, Huselid's (1995: 670) first hypothesis states that: 'Systems of High Performance Work Practices will diminish employee turnover and increase productivity and corporate financial performance.' His statement is intelligible on the grounds that in the firms he surveyed, systems of High Performance Work Practices *regularly* diminished employee turnover and increased productivity and corporate financial performance.

Henceforth, we will generalise and style regularities between events as 'whenever event *x* then event *y*' or 'whenever event $x_1 \ldots x_n$ then event *y*'. The fact that Becker *et al* (2001) come extremely close to using this terminology is highly indicative that we are not pursuing a straw person:

> Ideally, you will develop a measurement system that lets you answer questions such as, how much will we have to change x in order to achieve our target in y? To illustrate, if you increase training by 20 percent, how much will that change employee performance and, ultimately, unit performance?' (Becker, et al., 2001: 110)

Regularities between variables are more often expressed as functional relations, $y = f(x)$ or $y = f(x_1 \ldots x_n)$. It is very important to note that events and their regularities or constant conjunctions are the basis upon which any mathematical or econometric specification is derived. Consider the absurdity of trying to write something like $y = sometimes\ f(x_1 \ldots x_n)$. The absurdity is removed at a stroke when the *irregularity* associated with the term 'sometimes' is removed.

Closed systems

Systems are defined as *closed* when they are characterized by event regularities; and by extension open systems are those characterized by a lack of such regularity. Events are constantly conjoined in the sense that for every event y, there exists a set of events $x_1,x_2...x_n$, such that y and $x_1,x_2...x_n$ are regularly conjoined. A hi-fi system is a closed system because a change in the volume control is constantly conjoined with a change in volume. A labour market is often (mistakenly) assumed to be a closed system because a change in (say) wage rates is (allegedly) constantly conjoined with a change in the demand for, and supply of, labour.

A deterministically closed system can be expressed probabilistically and can, thereby, be transposed to a *stochastically* closed system. It is important to note, however, that closed systems do not cease to be closed systems simply because we specify them stochastically**.** Under stochastic closure y and $x_1,x_2...x_n$ are still constantly conjoined, albeit under some well behaved probabilistic function. In effect, the claim 'whenever event x then event y' is transposed into the claim 'whenever events $x_1, x_2,\ldots x_n$ on average, then event y on average', or 'whenever the average value of events measured by variables $x_1, x_2,\ldots x_n$ are what they are, then the average value of event y measured by variable y is what it is'.

Laursen's work is useful here because he specifies both deterministic and stochastic systems. For an example of a deterministic closed system in HRM, let us consider Laursen's analysis of the relationship between HRM practices and organisational performance in terms of innovation. The following is a closed system

$a = f(b_1 z, b_2 x)_s$

> where a is the ability to produce innovations, $b_1 z$, b_2 are parameter vectors, and z is a set of (exogenous) determinants of innovation related to the application of HRM practices, while x is a set of other variables explaining innovative performance across business firms. The variables included in the variable x are arguably standard variables in explaining innovative performance (Laursen 2002: 145).

Laursen operationalises this in the following regression equation which is an example of a *stochastically closed* system:

$$A_i = a_s SECT_i + d_s SIZE_i + u_s LINK_i + h_s HRMS_i + e_{ij}$$

Control variables SECT, SIZE and LINK denote the industrial sector, firm size and degree of vertical integration respectively. Dependent variable A_i denotes the firms' ability to innovate. $HRMS_i$ is one combined independent variable expressing the HRM practices associated with performance related pay (PPAY), delegation of decision rights (DRESP), and team work (TEAM). $HRMS_i$ actually measures the variable denoting how large a share of the firms workforce is engaged in:

- Interdisciplinary working groups [TEAM 1]
- Quality circles [TEAM 2]
- Planned job rotation [TEAM 3]
- Integration of functions (e.g. sales, production/services, finance) [TEAM 4]
- Delegation of responsibility [DRESP]
- Performance related Pay [PPAY]

Lauren's model is a stochastically closed system in the sense that (after controlling for firm size and vertical integration) the firm's ability to innovate is constantly conjoined with performance related pay, delegation of decision rights, and team work.

Another example of stochastic closure is found in Huselid (1995: 648). Huselid concludes that 'a one standard deviation increase in High Performance Work Practices yields a $27,044 increase in sales and a $3,813 increase in profits'.[13] This is not deterministic. Huselid is *not* claiming that *all* firms in the sample who used these practices experienced increases in sales and profits of these magnitudes. It is stochastic because he is claiming that all firms in the sample who used these practices experienced *average* increases in sales and profits of these magnitudes. Stochastic closed systems are a sub-set of

closed systems more generally, and henceforth, we will not differentiate between them, referring simply to closed systems. There is, then, no 'retreat' as it were into statistical techniques.

In sum, then, the importance of event regularities and, by extension, closed systems, is almost impossible to understate. Driving the inferential machinery in the deductive method is the regularity, or constant conjunction of events by making possible the deduction or prediction of some event(s) from other event(s). Without regularities between events, that is to say without closed systems, no deduction or prediction is possible. Without regularities between variables, no hypotheses could be tested. Event regularity is a very important presupposition for science/scientism. Without it, there would be no point in even attempting to argue that certain bundles of HR practices, when appropriately aligned with corporate strategy, are regularly associated with increased performance.

Causality

Another important presupposition for science/scientism is causality. If ontology is one of observed atomistic events, then causality cannot be conceived of in terms of anything other than a conjunction of some kind between these events. The cause of event *y* must be sought in terms of some prior event *x*. If epistemology is one whereby knowledge is reliant upon identifying the patterns, if any, these events reveal, then knowledge of causality requires that these patterns take the specific form of event regularities or constant conjunctions of events. If the world is reduced to observed atomistic events, causality is reduced to constant event conjunctions – referred to as Humean causality as it derives from Hume.[14] Knowledge (epistemology) is reduced to identifying constancy in any event conjunctions, and methodology is reduced to engineering closed systems so that event regularities can be presented in the form of functional relations – or derivatives such as regression equations.

Whilst causality is important for science/scientism it is important to note that only causality as regularity, Humean causality, is actually recognized. Consider a well-known example.

> 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, 1997: 658).

Let us proceed carefully here. It is true that Huselid does not *actually* claim anything about causality here, efficient or otherwise. He does not actually claim that the introduction of certain HPWP's *causes* the increase in sales. And Huselid is not alone. To the best of our knowledge, none of the research on the HRM-P link makes any claims about causality – in fact, many papers point to the problem of reverse causality. Yet if efficient causality is not implied in this research, if researchers are not claiming that their findings demonstrate that the introduction of certain bundles of HRM practices cause improved

organisational performance, then the findings of these studies have no practical significance. Anyway, Huselid does add the comment that his measures 'suggest that firms *can indeed obtain* substantial financial *benefits* from investing in the practices studied here' (667 emphasis added) which comes as close to making a causal claim as possible without uttering the 'c' word.

Explanation

In addition to Humean causality, there is also a notion of *complex* causality. These two notions of causality 'map,' as it were, onto two accounts of explanation. For ease of exposition, we explicate this with examples from the physical world, before introducing examples from HRM.

Efficient causality refers to a situation where the cause of an event is assumed to be the event(s) that preceded it. The cause of the lamp's illumination, for example, is merely the finger that flicked the light switch.

Complex causality refers to a situation where the cause of an event is not assumed to be the event(s) that preceded it, but rather is the wider conflux of interacting causal phenomena. The cause of the lamp's illumination, for example, is the nature of the glass, the gas, the filament, the wire, the switch, the plug, the electricity, as well as the finger that flicked the switch.

It is extremely important to note that Humean causality does not become complex causality simply by allowing several causal factors into the analysis, which would, for example, mean simply extending the regression equation to allow for more independent variables. Now let us link these two types of causality to two types of explanation.

Humean causality and emaciated explanation. Giving a causal history, or account, of a phenomenon, and hence explaining it, could be interpreted to mean giving information about the event(s) that preceded the phenomena. That is, explanation could be based upon Humean causality. If and when causality is reduced to Humean causality, then explanation is reduced merely to giving information about a succession of events and becomes, thereby, emaciated. The explanation of the lamp's illumination simply requires information to the effect that 'a finger flicked a switch'. Any further information about the finger, the switch, or anything else, adds no more information than is necessary and is, therefore, superfluous. If this information can be said to constitute an explanation at all, then it is a very *emaciated* one: indeed most of us would not even recognise this as an explanation at all as it would simply leave us asking: Why? Many practising HR professionals tell us they are inclined to agree with us (X & Y 2006).

Complex causality and robust explanation. Giving a causal 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. That is, explanation could be based upon complex causality.[15] If and when causality is complex, then explanation cannot be reduced merely to giving information about a succession of events but rather requires information about the wider conflux of interacting causal phenomena beyond that captured even by sophisticated techniques utilised in the multiple analysis of variance (MANOVA). Information about the nature of the glass, the gas, the filament, the wire, the switch, the plug, the electricity, as well as the finger that flicked the switch all add to the richness of the explanation and are, therefore, not superfluous but absolutely necessary. There is little doubt that most of us would recognise this information immediately as constituting a very rich, or robust, explanation as it would (at the very least go some way to) answering the question: Why? Once again, many practising HR professionals tell us they are inclined to agree with us (X & Y 2006).

Let us now turn to the social world, and consider emaciated and robust explanations of the increase in productivity following the introduction of a typical High Performance Work Practice, team working.

If and when causality is *Humean*, then explanation is emaciated because it is reduced merely to giving information about a succession of events. The explanation of the increase in productivity simply requires information about the prior event, namely that '*team working was introduced'*. Any further information adds no more information than is necessary to establish Humean causality, and is, therefore, superfluous. Robust explanation might be nice, in some sense, but it is no more than window dressing. If this information can be said to constitute an explanation at all, then it is a very emaciated one.

If and when causality is *complex*, then explanation is irreducible merely to giving information about a succession of events. A robust explanation of the increase in productivity requires two kinds of information. First, a robust explanation requires, what we might call, *hermeneutic* information. That is, information relating to the way the relevant agents (i.e. stakeholders) interpret, understand, make sense of, the workplace and, thereby, initiate action. Second, a robust explanation requires information about a significant (but not infinite) set of interacting causal phenomena through which agents initiate this action. This might, for example, include information on:

- the social, political, economic and spatial environment of the industry and/or the firm
- the industrial relations system
- the composition of the team
- the nature of the new jobs, tasks and skills (if any)
- the relationship between team members

- the relationship between team members, the line managers and corporate strategy
- the nature of control in the firm
- the nature of any synergies (or dis-synergies) created by the interaction of these causal phenomena
- etc.

Clearly, this list is not exhaustive and, furthermore, each of these performance enablers (or disablers) could be broken down into its sub-enablers as we try to provide more detailed information.[16] Needless to say, a great deal of this information will be irreducibly qualitative.[17] All this information adds to the richness of the explanation and is therefore not superfluous but absolutely necessary. There is little doubt that most of us would recognise this information immediately as constituting a robust explanation because it would (at least to some degree) answer the question: Why?[18]

Notice, however, that this form of causality *cannot* be accommodated via functional relations (or regression equations) partly because of its qualitative nature, partly because a work-team is best conceived of as en entity with capacities of powers, and partly because complex causality involves *irregularity*. Qualitative, perhaps hermeneutic, phenomena simply cannot be (meaningfully) quantified.[19] If a work-team possesses capacities or powers for things like creative, imaginative, ingenious, self motivated action, then these powers can only be observed, recorded and transposed to variables, *if and when they are actually exercised*. Even then, countervailing causal phenomena may simply prevent the exercises of these powers. A non-manifesting power would not find its way into a functional relation. In any case, it would be remarkable indeed if the causal factors listed above were regularly conjoined with an increase in productivity. It is more likely that complex causality would mean that the system is *open*.

Towards a meta-theory of the HRM-P link

Now, armed with a reasonable grasp of the meta-theoretical presuppositions of science/scientism, we are finally in a position to consider the lack of theory that bedevils research on the HRM-P link. In fact, we are in a position to make a much more sophisticated observation because simply to be-moan the lack of theory is not quite the whole story.

Let us start with a simple question. What constitutes a theory? This simple question remains unsettled within philosophy of science; is not widely discussed in social science (*c.f.* Hughes & Sharrock 1997 chapter 3); is discussed even less in management studies and organization analysis (*c.f.* Johnson & Duberley 2000: chapter 3);[20] and not discussed at all in research on the HRM-P link. Even though writers like Guest discuss the lack of theory, they never discuss the nature of theory itself.

Let us start by making clear what a theory is *not*. A theory is not a list of references, nor a diagram or diagrams, nor a law or event regularity, nor a list of variables, nor a set of data, nor a hypothesis, or nor a prediction (Bacharach 1989). So what is it?

To get some ideas of how theories are conceived of in the general and HR management literature consider the following comments.[21]

> [A] theory may be viewed as a system of constructions and variables in which the constructs are related to each other by propositions and the variables are related to each other by hypotheses (Bacharach 1989: 498).
>
> [A] theory consists of units whose interaction allows us to forward propositions about their relationships. These units are…represented by variables. Likewise propositions can be operationalised as hypotheses, stating a relationship between variables (Noon 1994; 18).
>
> One key part of the 'theory' of HRM…is that it is possible to 'predict' a set of outcomes from a set of HR practices. In other words, this is the heartland of the theoretical modelling of the cause-and-effect variety (Storey 1992; 40).
>
> Theories consist of causal explanations of the occurrence of phenomena or the relationships between phenomena or between characteristics thereof…A theory is dominant if it can account for all of the successful predictions made by competing theories and can make at least one more successful prediction than any competing theories…A theory must be corroboratable in the sense of being amenable to the deduction of predictions which can be subjected to empirical evaluation…Evaluation refers to the empirical assessment of predictions deduced from the conjectured theory…Conjecture consists of the positing of causes of phenomena or of the causes of the relationships between phenomena (Kane 1991: 247).
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> 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).
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> [T]heory is the answer to queries of why. Theory is about the connections among phenomena, a story about why acts, events, structure, and thoughts occur. Theory emphasizes the nature of causal relationships, identifying what comes first as well as the timing of such events. Strong theory, in our view, delves into underlying processes so as to understand the systematic reasons for a particular occurrence or non-occurrence. It often burrows deeply into microprocesses, laterally into neighbouring concepts, or in an upward direction, tying itself to broader social phenomena. It usually is laced with a set of convincing and logically interconnected arguments….[A] good theory explains, predicts, and delights (Sutton and Straw 1995: 376).
>
> [A] complete theory must contain four 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 of qualitative, characterize; theory supplies the explanation for the characteristics (Whetten 1989: 490-1, numbers added).[22]

The first thing to note is the complete lack of anything like a consistent vocabulary with different writers using different terms to mean similar things, and similar terms to mean different things. The second thing to note is the blurring of prediction and explanation. Whilst some of this stems from lack of careful exposition, the cause of clarity is not helped by the existence of the 'symmetry thesis' which is often found lurking within the scientific/scientistic perspective. This thesis, deriving from the Deductive-Nomothetic model, conflates prediction and explanation so that the only difference between explanation and prediction relates to the direction of time. Explanation entails the deduction of an event after it has (or is known to have) occurred. Prediction entails the deduction of an event prior to (knowledge of) its occurrence. If, for example, we can successfully predict that the introduction of a bundle of HRM practices, when appropriately aligned with corporate strategy, will be followed by an increase in ROI, then we can explain the increase in profitability by the introduction of the HRM practices. For reasons we will not go into here (X & Y 2006), the symmetry thesis is untenable, and we are prepared to proceed on the belief that it is not consciously adopted by researchers on the HRM-P link.

From the scientific/scientistic perspective, then, there appears to be a vague expectation that a viable theory consists of a set of constructions that facilitate prediction and another (different) set of that facilitate explanation. In other words, a viable theory should have *two dimensions: predictive and explanatory.*

i) *The predictive dimension of theory* consists of constructions that deliver predictions in terms of relations between events. When theory predicts, it does so by asking 'What' and 'How' questions. As Whetten (1989: 491) puts it: 'Combing Hows and Whats produces the typical model, from which testable propositions can be derived.'

ii) *The explanatory dimension of theory* consists of constructions 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 dynamics.

Recall that explanation and causality are connected and then note two things. First, the predictive dimension is characterised by (a) *Humean* causality and (b) *emaciated* explanation. Second, the explanatory dimension is characterised by (a_1) *complex* causality and (b_1) *robust* explanation.

Unfortunately whilst research on the HRM-P link is overwhelmingly preoccupied with prediction, it can only sustain Humean causality and emaciated explanation. Moreover, the emaciation of the explanatory

dimension is not accidental, but is a necessary corollary of science/scientism. And here, at last, we see how the pigeons come home to roost. We can now see how the meta-theoretical presuppositions of science/scientism, interact, and conspire, to make it impossible (on pain of inconsistency) to sustain an explanatory dimension characterised by complex causality and robust explanation. This goes completely un-noticed, despite the fact that (some) researchers on the HRM-P link are aware of the under-theorised nature of their research.

If the world is reduced to observed atomistic events (ontology), causality is reduced to event conjunctions, knowledge (epistemology) is reduced to identifying constancy in any event conjunctions, and methodology is reduced to engineering closed systems so that event regularities can be presented in the form of functional relations (or derivatives such as regression equations), then science/scientism cannot sustain anything other than the most emaciated of explanatory dimensions and, thereby, lacks explanatory power.

Current research on the HRM-P link does not venture beyond sets of statements that facilitate deduction or prediction and the construction of hypotheses in terms of constant conjunctions of observable, atomistic events. These are expressed (qualitatively) as variables which, in turn, are expressed as functional relations or derivatives such as regression equations, allowing the hypotheses to be tested using quantitative data and statistical techniques. Put simply, from the scientific/scientistic perspective, a *theory is merely a vehicle for delivering predictions and hypotheses in terms of regularities between events expressed as variables*.[23] Looked at in this way, it is hardly surprising that a theory (explicitly or implicitly) designed for the sole purpose of delivering predictions and hypotheses fails to provide something quite different, namely a robust explanation.

Conclusion

In X&Y (2005) we considered several possible theories that researchers might use in order to overcome the under-theorisation that be-devils research on the HRM-P link. Since Guest has mentioned many of them, we use his work to exemplify our point. In 1997 Guest 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 Guest 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.

Whilst it is always possible that one (or a combination) of these theories might become the candidate for the missing theory, this paper has alerted us to a serious meta-theoretical risk. If researchers remain committed to a scientific/scientistic meta-theory, they run the risk that any future candidate theory will simply end up as no more than a vehicle for delivering predictions and hypotheses in terms of regularities between events expressed as variables. The commitment to science/scientism will leave research on the HRM-P link without theory and without explanatory power, and no amount of empirical research, no matter how good, will overcome the problem. A radical re-think of meta-theory is required, no matter how unpopular this may sound.

Notes

[1] We deliberately make extensive use of endnotes to head off the criticism that this paper is 'just' about meta-theory with little connection to HRM-performance literature, whilst minimising interruption to the flow of the main text. Incidentally, we use 'meta-theory' as a portmanteau term to include philosophy of science, methodology, ontology, epistemology and causality.

[2] Accenture 2004; Bukowitz, Williams & Mactas, 2004; Donkin, 2002, 2003 & 2004; Kingsmill 2003; Overell, 2002; PricewaterhouseCoopers 2003; Rogers 2004; Saratoga 2005; Thomas, Cheese & Benton, 2003; Witzel 2004; Wright 2001; Watson Wyatt, 2001/2: 5 & 1.

[3] The usual references are Arthur 1994; Delery & Doty 1996; Fitz-enz 2000; Huselid 1995; Ichniowski *et al* 1997; MacDuffie 1995; Youndt *et al* 1996. More recent studies include: Ahmad & Schroedr 2003; Chang & Chen 2002; Guthrie, J. 2001; Meyer & Smith 2000: Toulson & Dewe 2004; Wan, Kok, Ong 2002; Wang, Dou, Ning, 2002; and Wright, Gardner & Moynihan 2003.

[4] See also Becker & Gerhart, 1996; Guest, 1997, 2001; Guest, Michie, Conway, Dewe 2004; Laursen 2002; Wright, Gardner & Moynihan 2003; Toulson & Dewe 2004. It is possible to find articles that start by lamenting the lack of empirical *and* theoretical work on the HRM-P link, and end by quietly abandoning the theoretical dimension, leaving the empirical dimension as an (inadequate) substitute (e.g. Benkhoff 1996). This is a point noted by Haynes & Fryer (2000: 242). 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.'

[5] Whilst some recognise (technical) problems with metrics, measurement and data, (*c.f.* Becker & Gerhart 1996; Gerhart B. 1999; Gerhart, Wright, McMahan & Snell 2000; Wright & Sherman 1999), we do not address these problems because our critique is aimed at the meta-theoretical argument which overarches these technicalities.

[6] See also Boudreau & Ramstad 1999; Budhwar 2000; Guest 1997, 2001; McMahan, Virick & Wright (1999)

[7] For an introduction to critical realism see Archer, Bhaskar, Collier, Lawson & Norrie 1998; Carter & New 2004; Danermark, Ekstrom, Jakobsen & Karlsson 1997; Lawson 1997; 2003; Reed 2001; Sayer 1994 & 2000. For a discussion in management studies more generally, see Ackroyd & Fleetwood 2000; Fleetwood & Ackroyd 2004 and Johnson & Duberly (chapters 2 & 3).

[8] Two exceptions are Wright & MacMahan (1992) who do address meta-theory and the HRM-P link; and Kane (2001) who considers meta-theory in HRM more generally. The *Human Resource Management Review* (Steel 2003) has a symposium devoted to '*methodological* issues in absenteeism research' (emphasis added). Whilst this is a slightly different subject matter, there are lessons for us. The symposium does not address methodological issues beyond problems of quantification and research design. All articles in the symposium operate, unquestioningly, from a scientific/scientistic meta-theoretical perspective.The tenor of the symposium might be grasped from the opening comment. When the editor 'invited me to serve as guest editor on a special issue devoted to methodological issues…I immediately decided that the issue's panelists should be drawn from among the ranks of the discipline's most active and prolific researchers. No keener insight into methodological issues is attainable than that won on the empirical battlefield where our most careful and painstaking efforts are so often held hostage to the whims and vagaries of the methodological equivalent of the Greek Fates (Steele: 153). A missed opportunity?

[9] Ramsay, Schlorarios & Harley 2000; Sandberg 2000; Bowman & Ambrosini 2000.

[10] Keenoy 1997; Legge, 2005, Evans 1999; Watson 2004; Harley & Hardy 2004. We do, however, have significant differences with the ontological commitments of many (but not all) of these writers. We worry that a *strong* social constructionist ontology can result in philosophy of science collapsing into sociology of science, making it impossible to even discuss issues of what a plausible theory or explanation might look like (*c.f.* Fleetwood 2004; Fleetwood 2005; Potter & Lopez 2001).

[11] Bowen & Ostroff 2004; Dooreward & Melhuizen (2000); Elias & Scarbrough 2004; Edwards & Wright 2001; Folger and Turillo 1999; Hendry, Woodward, Bradley & Perkins (2000); Knox & Walsh 2005; Truss 2001.

[12] In a fairly wide, but admittedly in-exhaustive survey of some leading journals, Mitchell & Jones (2001: 531) suggest that around half of the articles in these journals use something like this *modus operandi*, a clear indication of its widespread use.

[13] Similarly, summarizing the findings of three leading studies, Gerhart (1999: 32) observes that 'a one standard deviation increase in various HRM measures is associated with profits (return on assets) that are higher by 23, 16 and 23 percent respectively'.

[14] According to Hume: 'When I cast my eye on the *known qualities* of objects, I immediately discover that the relation of cause and effect depends not in the least on *them*. When I consider their *relations*, I

can find none but those of contiguity and succession' (1978: 77). And 'We have no other notion of cause and effect, but that of certain objects, which have been *always conjoin'd* together...We cannot penetrate into the reason for the conjunction (*ibid*: 93).

[15]This is Aristotelian in origin as it employs four kinds of causes – *material* (that out of which something is made), *formal* (that into which, or according to which, something is made), *efficient* (that by which something is made) and final (that for the sake of which something is made) (Kurki 2003; see also Groff (2004).

[16] It is important to tackle the red herring here. It is true that the list of what *could*, *in principle*, be included in a robust explanation, could easily expand until it included, literally, everything, and go all the way back to the big bang. In practice, however, social scientists usually avoid a potential infinite regress by making use of *abstraction* (*c.f.* Sayer 1998). That is, they make judgements about which factors need to be included and which can safely be excluded. This is of course fallible, and sometimes investigators get it wrong – but it is, in principle, no different than deciding upon which variables to include and which to exclude (*c.f.* Runde (1998).

[17] Notice that critical realism advocates using hermeneutic and/or other subjective or interactive research techniques. Furthermore, critical realism can also live with deconstructive techniques aimed at uncovering the exercise of power or revealing how power is used to create interpretations of the world that are presented as true, even if they are false.

[18] There are a few researchers who claim to do something similar, but their talk of 'examining the mechanisms' quickly evaporates into *measuring* the mechanisms (Meyer & Smith 2000: 319). The same goes for Becker & Huselid (1999: 288) as their talk of providing us with 'rich detail in how leading firms use their HRM system' and 'an outline of theoretical rationale and empirical literature linking HRM systems with corporate financial performance' turns out to be yet more measurement.

[19] Den Hartog & Verburg's (2004) attempt to deal with the hermeneutic issue of awareness of organisational culture soon collapses into attempts to measure culture

[20] See also the forum in *Administrative Science Quarterly* (introduced by Sutton & Straw 1995; and the symposium in *Academy of Management Review* introduced by Ven de Ven (1989.)

[21] Apart from Wright & MacMahan (1992) we could not find any examples from the HRM-P literature.

[22] The fourth (triad of) elements consist of 'Who, Where and When. These conditions place limitations on the propositions generated from a theoretical model (Whetten 1989: 492).

[23] Many researchers get embroiled in various contradictions that spring from the attempt to remain within, and to go beyond, science/scientism. Lahteenmaki, Storey & Vanhala (1998) make use of a range of statistical techniques in their search for positive relations between strategic HRM and company performance. That they identify hardly any such relations is besides the point here as they use the same kind of empirical approach as those that do claim to find positive relations, which implies they accept their usefulness. Yet they end up raising doubts about these same techniques and call for intensive

case studies to reveal the complex nature of the relationships. Despite their obvious desire to go beyond the current state of affairs, Peccei & Rosenthal (2001: 883) cannot break with the scientific/scientistic perspective and end up 'first modelling and then testing the core assumptions linking HR practices and management behaviours to the customer orientated behaviour of front-line workers'. Whilst much depends upon the methods adopted, many who opt for a mixed-methodology strategy (e.g. Budhwar 2000), actually end up with what amounts to science/scientism with some (often useful) insights bolted on.

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