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Professional academics will adapt their scientific method

We have probably all experienced the word 'academic' being used in a derogatory fashion. 'It's all academic' or 'that is only of academic interest' are put-downs suggesting an academic is someone who does not inhabit the real world or has little to say of any practical value. It gets very personal when we hear - 'what would he know, he's only an academic'. Yet it is rigorous academic research that is the very cornerstone of a doctor's professionalism. Patients have learned to trust doctors more than quacks because their treatment generally works. Patients do not need to understand all the science behind medicine as long as it looks like the medicine is working. The same should one day be said of managers but that day will only come when the 'science' of management is more convincing than it is today; especially the science of people management.
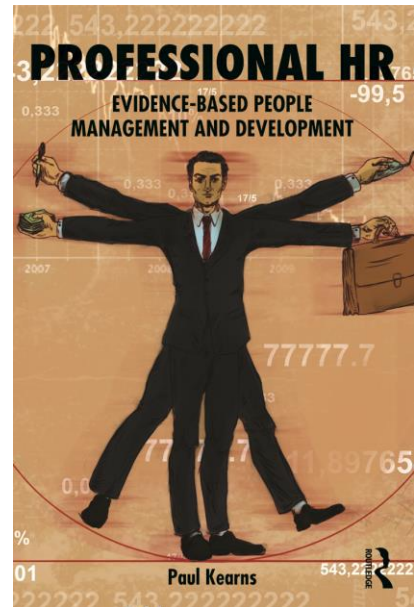
Even in the reasonably well-ordered scientific world of medicine the rigorous researchers do not have the field to themselves. The introduction of science did not suddenly rid the world of charlatans and untested, alternative therapies such as homeopathy. Every therapy will have its own advocates and believers. The same goes for managers, they are up against all kinds of therapies and belief systems. So how does the CEO know the difference between a Professional and an unprofessional executive or manager? They ask to see the manager's scientific method.

Figure 4.3 The Scientific Method

The illustration in Figure 4.3 is a very simple version of the scientific method but it is worth looking at it in some detail first, so we can fully appreciate the management implications. We need to be clear about the definitions being used, the sequence of steps in the complete process and the part each step plays. Let us look at the definition of the two key words first and then each step in turn.

Scientific: science is the intellectual, practical and systematic study of a subject through observation and experiment

and

Method: is not a haphazard, disjointed or chaotic activity but a particular procedure following a specific series of steps, in sequence

The scientific method then starts from a question that has to be asked.

- *Ask questions:* the effectiveness of the method is dictated by the quality of the question being asked from the very beginning. The management question should be one where the answer will be of value to mankind. Asking critical, management questions is also challenging the status quo though, so this requires courage.

- *Research:* the scientific method is intrinsically evidence-based with the best research being based on the best evidence available. A manager may call on academic research or have already carried out their own research.

- *Hypothesis:* all questions lead to the positing of a cause and effect hypothesis. For example, here is an effect (cancerous tumour) what are the causes and how could we deal with those causes to produce a cure?

- *Test with experiment:* we develop a prototype drug and use it on rats before carrying out clinical trials.

- *Analyse the results and draw conclusions:* did the drug treatment seem to work?

- *Hypothesis passes or fails:* regardless of any implications (e.g. future research funding) the results of the experiment have to close the loop back to the original hypothesis and be fed back to all interested parties

- *Think – try again:* if the hypothesis fails we have to go back and construct another hypothesis

This is a perfectly logical approach when dealing with the physical sciences but if you want to apply the same thinking to management questions it helps to know the Socratic Method (named after the Greek philosopher Socrates). This is also referred to as the Socratic questioning technique, which challenges the accuracy and completeness of someone's thinking in order to help them move towards their own, ultimate goal. You probably

noticed that this technique has already been used extensively throughout our text but here is a specific and relevant example.

If a manager starts with the assertion - 'a happy employee must be a productive employee'- the Socratic questioner offers a contradictory assertion to help the manager check their thinking. So you might point out that - 'a lazy employee can be a happy employee'. Socrates believed that the first step to knowledge is recognition of one's ignorance. His method encourages us not so much to prove our point but to *disprove* the other person's point of view. Socrates was condemned to death. Nobody likes a smart-ass, especially senior executives who are struggling to convey an impression of intelligence and gravitas. So the cautionary note for the Professional is do not expect perfect logic to work; you will need to do an awful amount of persuading and influencing.

Applying a scientific method to Professional practice

Whether CEOs like it or not, evidence will always speak for itself, eventually. The performance curve in Figure 1.2 should reveal who is a good manager and who is not but that assumes that the managers themselves accept the premise of the bell curve, agree the measures being used and are willing to admit their ignorance: that is a huge call. If we are really serious about Professionalising management we cannot afford to let any of these natural, human objections get in our way. So there is nothing wrong, in principle, with management academics trying to apply a scientific discipline to their management research, including people management, as long as they fully accept these human provisos. Also, human beings will not necessarily believe the most compelling evidence even when it is staring them in the face. They may well follow the 'not invented here' argument (quite rightly) that what worked for someone else, in a different context, will not necessarily work in theirs. So let us bear these considerations in mind when practising 'scientific' people management.

Intuitively, the concept of the happy employee being a productive employee sounds like it makes sense. However, we have already learned, from the fate of Socrates, that asking too many awkward questions is not a great way to win friends and influence people. So, while we should not be deflected by this, we must consciously help executives get used to the idea that they are going to be asked much more searching questions, especially about their people management capabilities, than before. To make this as painless as possible the HR Professional will make sure they only ask their most intelligent questions as politely, respectfully and quickly as possible. They cannot afford to be seen as wasting anyone's precious time.

There is a lot of re-educating to be done. HR practice in most large organizations today is based on very simplistic assumptions about employee happiness and HR people now see employee engagement as a goal. So we have to rewind that mindset back to the beginning, erase old notions, and record some new ones. We need to analyse how HR got itself and its executive team into this situation in the first place. What was the original question that led them to recommend annual employee engagement surveys? If you already run an engagement survey this should help you out of the mess you are in. The technique we will

use here is based on a further refinement of the Socratic Method and consists of two more types of question: Type 1 and Type 2.

Type 1 – The hypothesis is already accepted

A Type 1 question jumps the gun in the scientific method by moving straight to the 'test' stage, missing out the three preceding steps of 'question', 'research' and 'hypothesis'. The Type 1 question that led to engagement surveys was probably something along the lines of:

'Are our employees engaged?'

The easy way to spot a Type 1 question is to follow it with a 'so what…… if they are engaged? Type 1 questions always lead to a dead end. Type 1's tend to focus on input and process rather than output and outcome. This Type 1 error is compounded by several erroneous assumptions including:

- thinking that you already know what the problem is (e.g. a lack of engagement)
- that a 'proven' hypothesis already has the answer (you accept Gallup's unsubstantiated claims that Q12 proves engagement is linked to performance) and
- the *activity* (of running a staff survey) is therefore a valid thing to do.

Once the underlying logic has failed it will lead to other nonsensical questions. Here are a couple of very obvious questions that will arise out of such erroneous and unscientific thinking. You will also notice that Type 1 questions tend to lead straight to the door of the consultancy's sales team -

- Are your employees engaged enough?
- How do you compare with Gallup's other Q12 clients?

Even if you believe a high Q12 score provides you with an answer to your Type 1 question it still reveals nothing about the $ value of organizational or employee performance. So Type 1 questions are misleading and ultimately pointless. So let us try starting with a Type 2 approach instead.

Type 2 – We have not formed a hypothesis yet but think we might have a problem

Type 2 questions follow the scientific method step by step. The best, most intelligent, first questions usually start with 'Why?' and will always be *questioning* rather than making assumptions. Here are a couple of examples of Type 2 questions -

- Customer service data seems to suggest that our staff do not give great customer service: why is that?
- Why is the recent merger not producing the synergies and benefits it was meant to?

Neither of these Type 2 questions has jumped to the conclusion that the organization might need to increase employee engagement or demerge. However, if you find an answer to a Type 2 question it should directly add value. In the examples above this would be extra $'s

through better customer service (and the higher volume business that follows) or cost reductions through economies of scale. Type 2 questions are always focused on value, in $'s.

The second step is to do enough research to provide a confidence level that you are dealing with the right issues. So, for example, did the customer service survey specifically refer to poor staff attitudes and was there at least a correlation between the survey results and store sales? Correlations do have a bit part in Professional people management but only when used intelligently and within accepted limits. A correlation will not reveal causation but if no correlation exists then you would probably not pursue this line of enquiry any further.

Moving on to step 3 of the method, we construct a hypothesis of what was *possibly causing* the poor customer service that related to falling sales. We say *possibly* because we do not know at this stage and you are never likely to prove it beyond all doubt anyway. That is why Step 4 is not 'produce a solution' but 'test with an experiment'. Depending on the results of that experiment you will draw your own conclusions as to whether your hypothesis appears to be correct or not. The scientific method starts and ends with evidence: evidence that a problem exists and evidence that the same problem no longer exists (or has at least been alleviated). It is not magic; it is basically common sense turned into a logical, management discipline.

Based on this rudimentary explanation of the scientific method it might appear that there is nothing contentious about using such a simple methodology. This method can and has been applied millions of times to scientific and management problems with great success. The evidence is plain and voluminous: modern drugs and lean manufacturing would not have reached the same level of sophistication achieved in the last 50 years without it. But times change and as we make inexorable progress our well-tried-and-tested methods are stretched beyond breaking point. In terms of people management that limit was reached once before, over 30 years ago, when organizations started to try and do TQM (total quality management). Unfortunately, they did so without the means to make it a total people solution. The time has finally come to complete the total management picture.