

Management and its public: imagining management practices

Linda Hitchin

This paper suggests that there is value in a conversation between science technology studies and management philosophy. In particular, the paper illustrates how a cocktail of two powerful forces in STS, actor network theory and public understanding of science, can serve to foreground aspects of management hitherto hidden. Actor network theorists persuasively demonstrate that contemporary experience involves human and non-human agents in material and heterogeneous practices. This position leads to a claim that we must increasingly learn to live in tension, as aspects of social life present themselves as full of open ended options that are come to rest either no-where or elsewhere. This paper examines such actor network concerns through a discussion of agency and raises questions regarding relationships between managerial agency, epistemology of management and public understanding of management. In this context, publics are considered as a legitimate and powerful location through which notions of science and management are coproduced. A case is made for the value of fiction in actor network studies of organisational behaviour by reference to literature of public understanding of science (PUS). PUS is rendered comparatively relevant here by reference to contextual parallels between science and management such as contemporary challenges to the singular naturalistic narrative, changing social status of disciplinary knowledge and contemporary governance and responsibility debates that impact on day to day practices. In making this comparison it is suggested that whilst it is not uncommon to find a mix of character traits in representations of the contingent and vulnerable human-scientist there is little space for either the vulnerable or heroic manager in popular culture. To close this discussion and offer a point of departure for further discussion this study playfully examines a particular popular fiction Eric (~~Faust~~) [Terry Pratchett 1990]. Using material from this fiction, management is reframed in terms of resonance, public understanding of business management and coproduction processes. Finally, this study stops and turns to its readers to continue imaging management and its publics.

Science matters – a garden wall or another country?

This paper is concerned with the academic practice of ‘conversing over the garden wall’. The particular wall in question is that which separates social studies of technology and science (STS) from management studies. Now, this is a relatively low wall and one that social scientists from both sides have been peering over for some time and this mutual curiosity in one another is beginning to produce some interesting results. Recent efforts of individual management theorists to draw STS sources into both their theoretical and empirically oriented work are now complimented as some STS researchers gently shift their central tropes from those that elevate ordering and organizing science and technology to those of Organization. Indeed, this apparent convergence is not only represented in subtle and not so subtle literature shifts but is also formally expressed in recent workshops convened by STS practitioners to consider the question “Does STS mean Business?”¹ Increasingly, it seems, we look to each other to enrich our social theory, extend out critiques and add substance to our polemic.

In this context, and with a view to widening the conversation between sociology of science and technology and sociology of management, this paper combines two established aspects of contemporary STS in order to raise some concerns for management and management theory. The STS cocktail offered here has two key components, the first is theoretically laden and known to management audiences by name; it is Actor Network Theory (ANT). The second component is less well known in management circles and certainly less defined, however it too is named, and it is the STS subject area known as Public Understanding of Science (PUS).

¹ The original *Does STS mean business?* workshop was held at Said Business School, Oxford UK on 30th June 2004 and its subsequent workshop *Does STS mean business 2?* took place at the same venue 29th Jun 2005. The workshop was convened by well respected STS researchers and represents a clear will to converge management and STS research agenda.

The purpose of bringing the cocktail of ANT and PUS into debates on management philosophy is threefold. The first aim is to illustrate theoretical and methodological insights offered by ANT as social theory. In this context the limitless character of management practice is rendered relevant to examinations of management, managerial knowledge production and management action. The second aim is to juxtapose management and science in order to elevate and explore difference. Typically, these differences appear to relate to the particular situations or, if you prefer, contexts of work. However, it will be suggested that, beyond the notion of situation, science is ostensibly a highly regulated labour with clear methodological archetypes that represent good and bad laboratory practice whilst management appears a much more morally mobile behaviour. This apparent difference may prove a valuable point of departure in terms of understanding both managerial and scientific practice. The final and main aim of this paper is to pursue this difference by examining relationships between science, management and their others. It will be shown that science addresses its publics in a variety of formal and informal sites and there is both academic and political concern within and without science for how the public comes to understand scientific knowledge and practice. In PUS, the intricate connections between these locations of science talk and action are rendered crucial to understanding not only what science is at any given moment but also how and why it comes to be. PUS has political importance and academic value and it will be suggested that reframing management in terms of its 'publics' may foreground aspects of management practice that would otherwise be hidden.

In order to provide a working basis for a conversation, a considerable amount of this paper draws on studies of science and technology and it may be worth providing a little background to STS. As with management studies, STS is a multidisciplinary research site, and for more than three decades social scientists from a range of disciplines and theoretical positions have focused attention on science, scientific knowledge production and scientific practices². One of the greatest strengths of STS is that, irrespective of perspective, approach or position, empirical work underpins theory³. This *show and tell* tradition has proved valuable as a basis for academic conversations across disciplines and produced collaborative endeavours offering seminal disciplinary insights into science and technology that tend to travel well. Notwithstanding sometimes fierce disagreement on points of theory and practice, these classic studies have produced a now tacit understanding of science as social practice. It is in this context that science and technology have been rendered sociologically relevant: that is they have been made significant to our understanding of processes of social domination, social order, equality and inequality.

Inevitably, for sociologists pursuing the common goal of rendering human works sociologically relevant, it is powerful social theory that transcends particular sites of interest and offers a common language for academic conversations. It is also social theory that allows us to move across the disciplinary barriers and engage with research that considers our interests from different intellectual positions and against different intellectual questions. Whilst researchers certainly travelled into science and technological studies carrying a range of theoretical and methodological tools, as with any site, STS offered particular leverage on theory and theorising and actor network theory, the particular theory that focus attention on here, emerges through

² In this context it is worth seeing examples in **sociology** such as Knorr-Cetina Karin (1981) (ed) *Advances in social theory and methodology: towards an integration of micro- and macro- sociologies* Routledge and Keegan Paul; Latour, Bruno and Steve Woolgar (1979) *Laboratory Life: The Construction of Scientific Facts* (2nd edition 1986) Princeton, NJ: Princeton University Press and Collins, Harry M. (1985) *Changing Order: Replication and Induction in Scientific Practice* London: Sage. In terms of **historians** of science see Shapin, Steven (1994) *A Social History of Truth: Civility and Science in Seventeenth Century England* Chicago: University of Chicago Press. **Feminist** works are well represented by Harding, Sandra (1986) *The Science Question in Feminism* Ithica: Cornell University Press; and Haraway, Donna J. (1997) *Modest_Witness @ Second_Millennium. FemaleMan[®]_Meets_OncoMouse[™] . Femism and Technoscience* London and New York: Routledge. For **anthropology** see Downey, Gary Lee and Joseph Dummit (eds) (1997) *Cyborgs and Citadels. Anthropological Interventions in Emerging Sciences and Technologies* Santa Fe: School of American Research Press. Distributed by University of Washington Press and for **ethnomethodology** Lynch, Michael (1985) *Art and Artifact in Laboratory Science: A Study Of Shop Work And Shop Talk In A Research Laboratory*. London: Routledge and Keegan Paul

³ Collin, Harry M. (1996) "Theory Dopes: a Critique of Murphy" in *Sociology* 30, 2, [pages 367-373](#)

these sociological investigations of science and technology in the late twentieth century and, it is to this theory that I now turn with just a slight health warning for readers. It is to be hoped that the technological and scientific tropes are not too much of a distraction here for a management studies audience. As we shall see, one major contribution of ANT comes from its treatment of the materials that we bring to hand in daily labours and hence non-humans of all kinds were certainly (and necessarily) elevated in early theorising. I would only ask that in the spirit of productive conversation you hold fast at least for a while - and I will retain my belief in active readers.

Net Work/Net Effort

As with any theory, ANT has a set of general tenets often expressed through an array of valued images/metaphors and specialised vocabulary and, in order to discuss the value of this theory to management philosophy, it is worthwhile spending time examining some of these aspects of theory. To this end, I offer here a very selective but deliberate discussion of actor networks by focusing on a short sociological study of mundane artifacts by Bruno Latour. This study was published in an exhilarating and highly productive period before work around actors, actants and network became fixed as a Theory, but during which time it was most certainly in the process of becoming one. The paper in question offers a sociology of doors and, whilst doors may appear slightly irrelevant here, it is worth pursuing for awhile not least as, in its beautiful simplicity, it powerfully illustrates particular contributions to social theory and characterizes certain cherished concepts: namely material performativity, hybridity, translation and delegated moral order.

Latour begins his study with a short parable of *missing mass* a story that runs something like this: some physicists have considered the theories of some cosmologists and found, somewhat unsettlingly, that there just isn't enough mass in the universe to balance the tales told by cosmologists. The lack of mass is disturbing and so these physicists have set about trying to find the hidden or missing mass. Latour suggests that this is similar to the problem that confronts sociologists as they struggle to identify social connections that are robust enough to explain social order; our social sums do not add up.

Here then is the backdrop to Latour's central argument; an argument that presupposes a sociologically relevant hidden mass that works as hard at maintaining and disrupting social life as the social ties that are, most often, the centre of study. This mass must be social and moral in character and, given all our best attempts to explain society, somehow hidden from sociological view. In searching out this missing mass, actor network theory (and in particular here Latour) shift attention from recognisable social relations and in so doing challenge notions of who (or what) can and cannot have social agency:

...To balance our accounts of society, we simply have to turn our exclusive attention away from humans and look also at non-humans. Here they are the hidden and despised modern masses that make up our morality⁴.

One of the first moves in this argument is to establish the hybrid character of social life. Whilst hybridity is a well-established notion in contemporary social science, the treatment of the notion varies considerably and, as Papastergiadis noted around the same time as Latour was writing, was most usually applied to human identity:

... almost every discussion on cultural identity is now an evocation of the hybrid state. ... one of the 'achievements' of poststructuralist theory was to liberate the subject from notions of fixity and purity in origin⁵.

⁴ Latour, Bruno (1992) "Where are the missing masses? The Sociology of a Few Mundane Artifacts" in Bijker, Weibe and John Law (eds) *Shaping Technology/Building Society* Mass. MIT press pages 225-258 : page 227

⁵ Papastergiadis (1995) "Restless Hybrids" in *Third Text* 32 pp9-18: quote from page 9.

However, what we find in Latour's paper is a sense of hybridity that is characteristic of actor network theory; one based upon a requirement to extend the poststructural textual metaphor to non-humans. Non-human action becomes a focus for analysis as questions are raised about what non-humans do; and how and why they do it. As John Law points out, whilst textualisation is not a uniquely actor-network position, because ANT forces attention on action and material relationships it makes a particular contribution – it forces attention on performance – the work of actor network. As we shall see with Latour's example, this sense of hybridity leads to a situation where sociological distinctions between human, non-human and nature blur to the point of dissolution – a situation achieved because ANT "...takes the semiotic insight, that of essential relationality, and applies it ruthlessly to all materials – and not simply those that are linguistic"⁶. So, let us return to Latour and his doors to illustrate these claims in action.

Latour commences his story of hybridity by observing that it is difficult to consider the actions of doors without reference to their necessary partners – walls. Once we are thinking sociologically of walls we are led to consider the ordering of space. Walls work to establish boundaries and manage space and in so doing create important human categories. These categories may be basic and/or complex. A basic categorisation is the distinction between inside and outside whilst other categories allow us to define and regulate space in more complex terms such as the walls of a hospital, home, prison or school. Clearly, these wall categories are social categories and as people and things move across them they can be transformed, sometimes dramatically. As Latour points out, typically walls make sense in terms of their points of passage - that is they have meaningful holes in them and these holes must be managed:

The problem is that if you make holes in the walls, anything can get in and out
So, architects invented this hybrid: a wall hole, often called a *door*. ...⁷

In crafting a sociology of doors, Latour examines relations between humans, walls and non-humans in collaborative action: wall-hole-human hybrids. In a serious but playful way, Latour asks us to consider the social labour that is wrapped up in these hybrids and to imagine what effort would be needed for humans to establish and control social space without enrolling doors and walls into our labour. The clever turn here illustrates how hybrids are not only labour-saving but also imbued with moral orders - imagine the effort required and type of relations that would need to exist to keep people and things in their *rightful* place and life ticking over as it *should* if they wall-hole-human hybrids failed.

Clearly, the relevant point here being that as social power is delegated to doors otherwise difficult to fix social relations are translated into robust human-non-human hybrids. In this way non-humans work towards fixing social life in ways that go beyond any sense of landscape, background or context for, in technology, we find social relations made visible, tangible and, as Latour argues elsewhere, durable. In this way, materiality and social relationships are fused⁸. In a later study, Michel Callon has illustrated the relevance of a turn to materiality in his study of management⁹. In this case Callon asks us to reflect on the materiality of management action and the power delegated to non-humans enrolled in everyday managerial practice. However, we must be cautious lest we seek relevance too soon; there is a chance that materiality could slide into being nothing more than the stage setting of management practice. So, let us return to Latour and his labour saving moral ordering.

This observation that hybrid actors change a 'major' labour into a relatively 'minor' one is a central tenet of ANT and theorised in terms of translation and delegation:

⁶ John Law (1999) "After ANT: complexity, naming and topology" in Law, John and John Hassard (eds) *Actor Network Theory and after* Oxford: Blackwell [pages1-14](#)

⁷ Latour 1992: 227-228

⁸ There is a supporting study that pays particular attention to this question of tangible and durable relationships to be found in Bruno Latour (1991) "Technology is society made durable" Law John (ed) *Sociology of Monsters: essays on power, technology and domination*, Vol. 38 London: Routledge Sociological Review Monograph [page103- 131](#)see also Latour 1991

⁹ Michel Callon (2002) "Writing and (Re)writing Devices as Tools for Managing Complexity" in Law, John and Anne Marie Mol (2002) (Eds) *Complexities: Social Studies of Knowledge Practices* Duke University Press pages 191-217

I will define this transformation of a major effort into a minor one by the words *displacement* or *translation* or *delegation* or *shifting*

...

... tiny efforts balance out mighty weights;... That the small may be stronger than the large is a very moral story indeed (think of David and Goliath); by the same token, it is also, since at least Archimedes' days, a very good definition of a lever and of power: what is the minimum you need to hold and deploy astutely to produce the maximum effect?

...

I contend that this reversal of forces is what sociologists should look at in order to understand the social construction of techniques, and not a hypothetical "social context" that they are not equipped to grasp¹⁰.

So, the important point made we are now ready for a further twist in this study of hybrid work that is that whilst technologies work to frame and fix social relations, they are reworked in everyday performances: they are used and translated in action. Users are an ill disciplined group – they leave doors open that should be shut and they close doors that should be open. The problem of 'fixing' social relations is much more problematic than delegating 'power over' to technology and it would appear that neither power nor action work in this way. At this point Latour stays close to doors and observes that if users will not, cannot or might not, use doors properly, then, for doors *network* to be effective we have to find some means of control: that is enrol other actors in the work of sustaining order. For example, Latour suggest that we might introduce a highly skilled super-user, someone who will act as the user on behalf of many users ensuring that the door is open and closed appropriately: historically, in England these would be footmen or porters and in France grooms.

Extending net work to enrol labour relations of walls, holes, doors, hinges and a groom could solve the problem of *misuse*. However, Latour stresses that even these networks are not so easily bounded and the relationships they connect never unified and discrete – grooms for instance are involved in a whole host of other interfering relationships not least of all the economic relationships. Porters cost money. In pushing at the apparently simple net work of doors Latour appears to be playing a conjuring game, leading us into his net work story in a very particular way. However, this is serious play and his point earnest; by seeing social life as shifting net work our analysis can shrink to the micro politics of hinges and expand to macro politics of capitalism in the space of a few relationships. Hence it is worth following the story a little a he continues this serious play and takes us into other relationships and rather less predictable directions. Firstly, he notes that historically, labour costs could be reduced by child labour. Even so, as Latour notes, this is problematic, think about all the time the groom would just stand around unproductive, waiting for someone to need to use the door and even if we solve the resource utilisation problem there are other problems "that two hundred years of capitalism has not completely solved: how to discipline a youngster to fulfil a boring and underpaid duty?"¹¹

The point to be made here in respect of social agency is that in Latour's account the network of wall, hole, hinge, door and child will break down if either the hinge fails or the child is ill-disciplined and '... disciplining a groom - Foucault notwithstanding - is an enormous and costly task...¹²'. The network pattern expands and shrinks in front of us as doors shift from boundary management, to misuse, to cost and thence to disciplining bored children. Doors are shown to be neither solely local micro politics nor macro problems of social regulation – they are both and more. This is a crucial point of theory and one with serious implications if we remember the missing mass parable – the analytical distinction between macro and micro is misleading and risky.

In showing how, for this simple network to impose order we need to have both hinges installed and an alert groom at his post Latour offers a further insight into hybridity:

¹⁰ Latour 1992: 229

¹¹ Latour 1992: 230

¹² Latour 1992: 230

The first one evokes the past perfect (“once hinges have been installed...”) and the second the present tense (“when the groom is at his post...”). There is a built in inertia in the first that is largely lacking in the second. The first one is Newtonian, the second Aristotelian... A profound temporal shift takes place when non-humans are appealed to; time is folded¹³.

Given that non-humans fold time, and that users are a likely source of disorder, one way to extend the moral ordering of the door network would be to replace the requirement for a disciplined human user with a non-human. An answer here would be to automate the action of the groom, and in the move of introducing an automatic door riser “We have been able to delegate to nonhumans not only force as we have known it for centuries but also values, duties, and ethics”¹⁴. Now, consider this statement in terms of our discussions of management and business practice and in particular decision making. It is interesting to ponder what insights might occur if we looked, with as great a care as Latour examines doors, at not only *discourse* of managerial ethics but its materiality.

The final twist in the study of doors is most significant and it reflects the unending and limitless character of net work. Whilst Latour points out that there is always a moral and ethical dimension of mechanisms and always an imagined or *prescribed* user in the design of net work he takes great pain to show that what is argued here is no simple deterministic account of the enrolment of technology in performances of social domination. The thrust of the examination of doors serves to illustrate how active relationships extend in all sorts of ways and have meaning because they are open ended. At any one time activity in and around a door may be performances of relationships that are distinctly local, distinctly global or, as is more likely the case, both. Such connectivity and vibrancy means that lived performances are varied and open to perturbations from near and far. Take the example of life around hinges; average hinges require users to have some local knowledge about their performance such as whether you need a big push or little effort? They are also unpredictable - will the door fly back in your face? But, hydraulic hinges are a different form non-human all together. Hydraulic hinges don't rely on local competency - they prescribe the general rather than the local performance, they also tend to discriminate. In this instance hydraulic hinges discriminate against furniture removers, wheelchair users and people carrying packages yet we easily offset the actions of an over enthusiastic hydraulic door closer by enrolling a well-placed block such as a chair or a foot. Situations are rarely general and in the flow of people and things one human's drawbridge becomes another's siege engine.

So we have a theory of non-human agency that renders material hybridity relevant to social experience. We can now see that in this theory the notion of net work is not an appeal to computer models of connectivity that carry a sense of wiring and fixed topography, rather this is a sense of the activities of loosely collected flowing labour: net rather than gross labours. And, whilst thus far I have focused attention on the moral and political character of material hybrid action I have done little to illustrate how other networky foci can usefully engage management theory, specifically the disrupting notions of multiplicity, location and mobility. Let us now turn briefly to a different important study in ANT to address this lack before we move on to the second string in this conversation across the garden wall that is public understanding.

Networky Performances

The paper that I have chosen as a further point of reference for conversation is Annemarie Mol's study of *Ontological Politics* and it is relevant here as it both clarifies ANT accounts of hybrid, mobile and situated action and illustrates ensuing sociological and philosophical challenges raised in thinking social life in terms of lived multiple realities¹⁵.

Usefully, Mol begins her account by examining the crucial importance of performance in ANT and in the process differentiates between ANT and other anti-foundational theory. Mol refers to

¹³ Latour 1992: 231

¹⁴ Latour 1992: 232

¹⁵ Annemarie Mol (1999) “Ontological politics: A word and some questions” in Law, John and John Hassard (eds) *Actor Network Theory and after* Oxford: Blackwell pages 74-89 Mol 1999

Latour's work on vaccination to illustrate this point¹⁶. In this classic study, Latour demonstrated that when the science of vaccination moves from being laboratory work to become medicine, clinical practice, doctor, and patient it carries with it new ways for experiencing reality and new ways of *doing* health care. Laboratory reality, surgery reality, hospital ward reality and patient reality coexist whilst different. They are not perspectives on the same unified reality. They are not world-views of a complex drama enacted in front of us. They are material, social and diverse realities that we have emotional responses to, perform and examine. In this way Latour illustrates that reality is not only "historically, culturally and materially located" but also multiple. This shift is highly relevant as it moves us from ontological problems to ontologies:

Ontologies: note that. Now the word needs to go in the plural. For, and this is the crucial move, if reality is *done*, if it is historically, culturally, and materially *located*, then it is also *multiple*. Realities have become multiple.¹⁷

The insistence on multiple ontologies over perspectives of reality is highly significant and Mol takes care to distinguish between ANT metaphors that evoke multiple ontologies and the implied pluralism implicit in metaphors of world-view, perspectives or social construction. Her argument is that metaphors of world-view or perspective carry with them a centred singular reality that those views look in upon. Such thinking forces critical attention on characterising plurality and foregrounding politics of position – the power of a view, a stake or a perspective. Whilst notions of perspective require that we model plurality as views on a singularity, Mol argues that social constructivism leads to pluralism through a different route as constructivist accounts work to deconstruct social and material facts. Deconstruction of this type focus on processes of closure around interpretive flexibility – that is the social closing down of alternatives and the offering up of facts¹⁸.

Thus constructivist stories suggest that alternative 'constructions of reality' might have been possible. They have been possible in the past, but vanished before they ever blossomed. So, there is *plurality* again.¹⁹

Whilst, I would agree with Mol that metaphors of perspective carry notions of an external observer and an observed reality constructivism is more difficult to dismiss in this light. Typically, such studies focus attention on processes of closure and construction of facts and this attention to process brings with it social action. However, I agree with Mol that there are problems with constructivist approaches as their will to observe fixing of possibilities tends to represent social life as a contingently managed working through of difference rather than a living ambiguous variety. However, crucially, in contrasting ANT and these pluralist accounts Mol illustrates how, in holding to performance, ANT uses radically different metaphors for sociological thought and practice, a metaphor that easily allows reality to be multiple and fluid. Tracing medical practice she illustrates how:

Rather than being seen by a diversity of watching eyes whilst itself remaining untouched in the centre, reality is manipulated by means of various tools in the course of a diversity of practices. Here it is being cut into with a scalpel; there it is being bombarded with ultrasound; and somewhere else, a little further along the way, it is being put on a scale in order to be weighed.²⁰

Mol continues this discussion by using an empirical study of *anaemia*. As we shall see, in this example she carefully shows that locations do not simply surface different perspectives on a unified object that is anaemia, but allow anaemia to be transformed such that in each of the different locations where it is enacted anaemia is a different reality. Mol selects three locations

¹⁶ Bruno Latour (1988) *The Pasteurization of France* Cambridge Mass: Harvard University press. Translated by Alan Sheridan and John Law 1984

¹⁷ Mol 1999: 75

¹⁸ An excellent example of this genres of STS Trevor Pich (1987) "Social Construction of Bicycles" in Bijker, Weibe, Thomas Hughes and Trevor Pinch (eds.) (1987) *The Social Construction Of Technological Systems* Cambridge Mass. MIT press see Bijker and Pinch 1988

¹⁹ Mol 1999: 76

²⁰ Mol 1999: 77

to illustrate the point: these are clinical, statistical (laboratory) and pathophysiological anaemias. She notes that in medical texts these three performances are taken as aspects of a single condition in that they are related to one another as different expert perspectives on the singular medical deviance that is anaemia.

However, as Mol points out, this sense of a unified object viewed from different perspectives is problematic as, for example, some patients will not present clinical signs of anaemia but will have a deviant haemoglobin level: in other words in one location they are anaemic and in another they are not. Similarly, measured organs may lack oxygen because the haemoglobin level has just dropped but in statistical terms the level is still within normal statistical range. Or, more strangely still, a patient can move from being anaemic to not-anaemic by simply crossing a border from one country to another as statistical ranges are defined against population norms and thus vary. As Mol continues to demonstrate disconnections of clinical, statistical and pathophysiological performances of anaemia she notes that:

... the three ways to diagnose anaemia each diagnose something different. The objects of each of the various diagnostic techniques do not necessarily overlap...

This does not lead to big debates, to attempts to seek consensus or even concern. It is simply how it is²¹.

The issue of locational inconsistency and ambiguity is interesting here, as is Mol's observation that such diversity is not particularly problematic. Yet, in further developing the significance of performance Mol points to choices implied by multiplicity, for example, where should a decision about anaemia be made? A preference for clinical performances take us to a health care system based in clinical relationships; a system that risks leaving undetected statistically anaemic individuals who do not display clinical signs or who do not think their symptoms sufficient reason to seek out a clinician. On the other hand, if one favours statistical performances of anaemia, we are taken to a health care system that would use population screening to detect anaemia.

In reflecting on the current decision to locate detection of anaemia as a primarily clinical practice, Mol asks where this was decided and why. This is not a straightforward question as other models of health care use statistical performances for example vaccination programmes, neonatal PKU screening and breast cancer screening. In addressing the question, Mol points out that, whatever the acknowledged reason for the decision that 'detection of anaemia is a clinical practice', in fixing that 'fact' in place there is a displacement of the decision as it shifts from one site to another: for example we could imagine how in this case both screening and clinical practice may be translated into budget facts. Resisting the pluralistic argument that we need to make options explicit Mol suggests that:

We need to investigate what this would mean intellectually and practically. What it is to live things as *options*. What the good and bad of this way of living are. And what its practical limits might be. For it might happen that arguments that are mobilized in decision making shift the 'real' options to other sites, and then on again to further and more distant locations. That there is no last resort but instead there are options *everywhere*. So, that at any given site, they always end up seeming *elsewhere*. Mol 1999: 80

Here then is what I regard as the most powerful aspect of ANT – it draws attention to both the situated nature of action and to the limits of situationalism. In this way ANT expands and shrinks locations and both invokes and problematises situated performances. In other words it requires that we take seriously network relationships that are made, lost and remade between realities. For example, in the case of anaemia as clinical practice we find performances of patient-clinician relationships interrupt the 'straightforward' practices of clinical detection. In this case interactions are framed by location with both clinician and patient actively seeking to manage interaction and enrol the other very different locations and performances. .

In Mol's example, the anaemia network expands when she introduces into her questions of ontological politics, performances of anaemia that differentiate between men and women and

²¹ Mol 1999: 78

between women and pregnant women. Mol calls this type of cross situational relationality ‘interference’ and points to both power and problems evident in ‘thinking’ of social life as performed in and across multiple realities. Ultimately, such problems have a social, moral and political character:

If we recognise these interferences then the question of evaluating performances becomes more and more complex. For while it might just be possible to think of aligning arguments around the goods and bads involved in performing any specific single object (for instance anaemia) things become more and more complicated if the arguments around other objects, the sexes, individual identity and so on, must also be balanced simultaneously. Indeed, such balancing will never find a stable end point, there are too many elements. ... Tolerating open-endedness, facing tragic dilemmas and living-in-tension sounds more like it.²²

The network metaphor now holds sway in illustrating that multiplicity is not simply unmanageable pluralism. Now, Mol is pointing to those fascinating sociological (and activist) problems that emerge when thinking in terms of multiple realities. Human action is not an easily plotted and steady movement from one nicely bounded and defined situated performance to another – it is a fluid messy mixing of situation and interference. It is in this context that, by dissolving the micro/macro boundary and focusing on hybrid relationality the net work metaphor more accurately represents social life than notions of structure, system, layers or category²³. Anthropologist Marilyn Strathern, sums up contributions of ANT when she posits social life as limitless flows of persons and things and observes that, by theorizing net-work in terms of a material performativity, ANT:

... captured a concept with similar properties of auto-limitless; that is, a concept which works ingeniously as a metaphor for the endless extension and intermeshing of phenomena.²⁴

Once we acknowledge the endless extension and intermeshing that Strathern discusses we are confronted with a number of issues and dilemmas. Academically the greatest dilemma is that in producing analysis of moving target we will always be “stemming” the flow. However, in this paper I am more interested in another challenge that Mol, Strathern and company have pointed us to – our responses to uncertainty.

As in the case for the case of business and management, as the risky and uncertain character of science is elevated, interest turns to questions of accountability. Unlike business and management studies where ethics has become the central site of debates over governance and regulatory practice, scientific concern for ‘public understanding’ subsumes debates over professional ethics and adds a particular twist to the tale. It is worth reflecting here on how similar and different the experiences of science and management can be. Clearly, both are moving in the murky terrain of uncertainty and risk and subject to recent public scrutiny. Both are responding to that scrutiny through promotion and education and increasingly both are the site of litigation and legislation. In terms of difference, as I have suggested, science poses a deeply ethical strand in its cherished and highly codified method whilst managerial method is a much more mobile phenomenon and holds no such stabilising ethical status. Furthermore, whilst science offers an implicit understanding of itself as noble effort, it could be argued that if management has an implicit understanding of itself then it is in terms of economic performance, control and economic responsibility rather than wholly social goals. It could seem then, that for the moment, science has the edge on uncertainty...

Concerning ~~science~~ management and its publics

There is an established and well funded research effort that addresses relationships between science and its public. This research encompasses different theoretical and disciplinary positions and is funded from a variety of sources within science, social sciences and the arts. In other words, currently, public understanding of science is a hot topic.

²² Mol 1999: 82-83

²³ Latour 1997; Mol 1999

²⁴ see Marilyn Strathern, (1996) “Cutting the network” in *The Journal of the Royal Anthropological Institute: Incorporating Man* Vol 2 Number 1 September 1996 [pages 517-536](#) : 522

Whilst historical studies of management tend to focus on assumed evolutions in management theory, historical studies show that science has had a long standing involvement in both scientific education and raising public scientific awareness. In this context, Brian Wynne and Alan Irwin have identified particular aspects of the way these involvements were pursued throughout the nineteenth century and for most of the twentieth century²⁵. Whilst Wynne and Irwin offer an extended discussion that draws attention to the implicit assumptions evident in these efforts, their central points are collated here in terms of three key assumptions. First of all, an assumption that the pursuit of science carries with it social improvements. Secondly, that science is value free and thirdly, that the public is deficient in their understanding of science.

The assumption that science is value free carried weight through much of the twentieth century and is still bubbling away, albeit rather deeply, under the surface of contemporary practice. Value freedom remains a scientific issue not least because of a strong moral code within science; a code that Polanyi fore-grounded in the 1950's as a source of political power and regulatory control²⁶. This code, underpinned by deep and abiding faith in the tenets of scientific method, continues to pervade contemporary science. It is through rigour of method, hypothetico-deductive reasoning, falsification and replicability that science claims its value freedom and it is through adherence to method that science still judges itself.

The moral code is strong: methodological deviance is taboo and deviants stigmatised. Conduct can be put to the test and poor or bad science rendered visible through some universally understood principles. In this network of science, evidence based reasoning is a technique of order and replicability a technique of both authority and sustainability. However, whilst method has remained a major credo in science, by the time we arrive at the late twentieth century the by and large self regularity practices have been steadily undermined by a host of forces including sometimes catastrophic failures and widespread experience of doubtful practices. Uncertainty is tarnishing the edges of value free practice. Methodological adherence may remain the test that science is doing right by some of its articles of faith but it is now understood that this adherence is neither an indicator of value freedom nor a justification of the rights of practice²⁷.

If we look at recent debates around public understanding of science the deficit model of public understanding still overshadows contemporary scientific concerns. In 1985 the Royal Society produced a report on "the public understanding of science" that attempted to address public concern through the old deficit models. The report identified areas of individual and national interest where improved public understanding would be of benefit. Whilst still holding to the notion of value freedom and maintaining faith in science as socially enriching, this report firmly acknowledges the moral and political character of scientific decisions. The problem from within science then remains public ignorance and a concern that if science is to be held to public account then the accountants should understand the job at hand. Hence, at least within the Royal Society, accountability became, in part, promotion and education.

At around the same time as the Royal Society was involved in raising the profile of public understanding, convening committees and commissioning reports some different takes on public understanding were gathering force. In the last quarter of the twentieth century philosophy, history and sociology had all put significant energy into empirically informed study of science and scientific authority. In this context the work in the UK by Brian Wynne and Alan Irwin are notable specifically Brian Wynne's study of the debates that ensued after Chernobyl as Cumbrian farmers, press, Government and the local nuclear industry at Sellafield worked to

²⁵ See Alan and Irwin and Brian Wynne (1996) "Introduction" in Irwin Alan and Brian Wynne (1996) (Eds) *misunderstanding science? The public reconstruction of science and technology* Cambridge UK: Cambridge University Press pages 1-18

²⁶ Polanyi

²⁷ There are a host of different routes that one may take to support this claim – and the particular context of the empirical work in one area may have more resonance for one reader rather than another. However, my preference here is for Wynne and Irwin (1996) and Alan Irwin (1995) *Citizen Science* London Routledge.

measure levels of radioactivity, identify sources, determine effects and count costs were seminal²⁸.

As these varied efforts gained strength the implicit notions of social improvement, value freedom and a deficient public understanding were pressured to the point of disruption. As radioactivity stirred around Cumbrian sheep, cows went mad and DNA evidence was debated by experts in courtrooms it was clear that uncertainty, and its partner doubt, had become ensconced alongside reliability and faith as part of popular and academic understanding of science. Science was under scrutiny and possibly siege and accountability had become, in part, concern for relationships, power and legitimation²⁹.

It is interesting to note that some of the sites where unruly science becomes evident and to ask whether management practice has similar sites currently under researched. For example, it is interesting that whilst school texts, courtrooms, parliamentary committees, local government committees, media and public hearings are all recognised as important sites for examining “*both* the operation of scientific expertises/institutions and different ‘publics’ in relation to one another” they are under exposed as locations through which management and the institutions of management relate to their others³⁰. If they are identified at all is as either a backcloth to the work of managing contemporary organizations or a temporary extension of management practice³¹. It seems that in management and business research we focus considerable effort on understanding management in terms of either context or construct and value the pluralism of systemic perspective or social construction. But, as net work analysis suggests, context and construction may be rather weak toolsets for understanding the practices of management and the dynamics of decisions that can appear, in Mol’s terms, always elsewhere.

Importantly, studying science across its various loci and relationships has proved a powerful tool for demonstrating the heterogeneous character of both science and its publics. Just as the simple model of science as objective fact production conducted through pure method could not withstand empirical scrutiny of laboratory lives, the deficit model of public understanding cannot withstand empirical scrutiny and a new sense of the relationship between science and its publics emerges that breaks the distinction between consumers and producers of science and suggests that science is, and always has been, socially negotiated: that is co-produced. The point here is that such coproduction can only become evident once the notion of otherness is introduced and analytically exploited. Analytically elevating management others so as to position them in co-productive net-work relationships with management may prove a useful shift for management research and open notions of accountability both within and outside the institutions of management.

For social science then, the active and changing relationships that exist between science and its publics are never simply about science being represented, consumed, defended or debated they are science being *done*. As researchers such as Steven Shapin, Bruno Latour, Mary Baine Campbell and Simon Schaffer have beautifully demonstrated, science is not the work of a mind in a vat but imaginative, negotiated and social net work³² and in concluding this very selective introduction to science and its public I now turn to questions of imagination.

²⁸ Brian Wynne has produced a significant literature on Cumbrian radioactivity, Cumbrian farming and Cumbrian farming and radioactivity. Of relevance here to the coproduction argument see Brian Wynne (1989) “Sheepfarming after Chernobyl: a case study in communicating scientific information” in *Environment* 31, 2 10-15 and 33-9 and also “Misunderstanding misunderstandings” in Irwin and Wynne 1996 pages 19-46

²⁹ Whilst there is a collection of academic domains where this pressure is felt it is worth referring out to concerns raised throughout 2005 in *The Times Higher Education Supplement* and the defensive position taken by the Royal Society in recent debates over regulating cloning

³⁰ Irwin and Wynn 1996 page 7

³¹ I am thinking here of examples such as employment tribunal and fair trade lobbying where the distance from management is slightly closer than say in the case of debates over the common agriculture policy or landuses

³² See in particular Bruno Latour “Do you believe in reality?” *News from the Trenches of the Science Wars* in Bruno Latour (1999) *Pandora’s Hope: essays on the reality of science studies* Mass: Harvard (continued)

Science imagined: some most peculiar practices

Both Donna Haraway and Ursula Le Guin have independently observed, the relationships between science and fiction is far stronger than might at first appear and net works of science ↔ fiction provide an interesting site of imaginative engagement and coproduction³³. This connection is interesting from a actor network point of view as fictional Storyworlds are, by their nature, closer to the free flowing movements of folk and things that Strathern proposes than the academic interpretative cuts taken as researchers wield theory. For stories to resonate they inevitably allow their (char) actors mobility and relationships that is often impossible to evoke in academic genres. Equally, the connection is interesting as, when stories are treated in a networky fashion, they point to coproduction.

There is a time-honoured academic interest in science and fiction predominately this is in the form of literary or cultural studies. Traditionally this body of work revolved around fictions that were categorised under a genre known, reasonably enough, as SF or Science Fiction. Early studies of SF produced a top level taxonomy of the genre that encouraged stories to be classified in terms of utopic or dystopic fictions³⁴. Utopian stories suggest that science can, or indeed has, solved many (if not all) of the problems of contemporary society whilst, in dystopic works the trajectory of science and society could, or indeed has, led to a nightmare world of anarchy, violence and de-humanisation. In this context, interest has also turned to how scientists are represented within the genre. Andrew Tudor, amongst others, has illustrated the set characterisations of science that one can find in both SF and SF/Horror genre and again, these characterisations have become almost routinely understood. Hence it can seem unnecessary here to observe that fictional scientists can be ranked in terms of their relative paternalism, madness, badness and dangerous to knowness³⁵.

Whilst this taxonomy has had value, and one only needs to point to genre classics such as *The Shape of Things to Come* or Mary Shelley's *Frankenstein* to understand how the classification came to common use, increasingly in SF studies, this distinction is now proving less useful and critical accounts now examining SF raise the power of the genre to demonstrate the ambiguous and social character of science³⁶. In this sense these studies are more closely akin to ANT accounts in that they find in dramatic Storyworlds a science that is bounded and boundless, local and global, personal and professional and regulated and messy – in other words networky. In order to explain this point I will turn attention to Jon Turney's work on Shelley's *Frankenstein* and its descendents to examine the uses and limits of the sense of a bounded *dystopic Faustian* fiction of *misguided* science.

Haraway suggests that all stories, be they considered fact or fiction, have hidden story tellers that is there are agents and agency in the work that are hidden from view³⁷. In his study of science ↔ *Frankenstein* Jon Turney illustrates this point when he shows how Mary Shelley's

University Press pages 1-23; and Mary Bain Campbell (1999) *Wonder and Science: imagining worlds in early modern europe* NY: Cornell University Press

³³ Donna Haraway makes an important relationship between fact and fiction In her text Donna Haraway (1989) *Primate Visions: Gender, Race And Nature In The World Of Modern Science* London: Routledge, Chapman Hall page:4. In this piece, Haraway uses etymology of fact and fiction to illustrate their kinship. She observes that both have roots in action – both are made – hence whilst they are different they are 'not opposed'. In a very different context, Ursula le Guin has considered the value of fiction in its ability to see offer profound metaphors for social life – see Ursula Le Guin (1989) *The Language Of The Night: Essays On Fantasy And Science Fiction* London: The Women's Press

³⁴ For a useful discussion see Adam Roberts (2000) *Science Fiction* NY and London: Routledge

³⁵ Andrew Tudor (1989) *Monsters and Mad Scientists: a cultural history of the horror movie* Oxford and Camb. Mass: Blackwell

³⁶ See Istvan Csicsery-Ronay Jr (1991) "Science Fiction and Postmodernism" in *Science Fiction Studies* 16, 3 pages 305-308 Csicsery-Ronay Jr. 1991; Jenny Wolmark (1994) *Aliens and Others: Science Fiction, Feminism and Postmodernism* NY and London: Harvester; George Mckay (1994) 'It's not "about" science, it's "about" fiction and it's "about" about' in *Foundation: the review of science fiction* Number 60, Spring 1994 pages 51-57; and Adam Roberts (2000)

³⁷ Jon Turney (1998) *Frankenstein's Footsteps: science, genetics and popular culture* London: Yale University Press

tale is not simply a product of a brilliant imagination but was, in itself, a contemporary work of coproduction in its time, a coproduction with many hidden story tellers including science. For example, Turney illustrates some other less well known connection.

... It is precisely the electrification of Paracelsus which marks out Frankenstein as a pivotal point in the transition from the supernaturally fantastic to the scientifically plausible. The chemist Waldman at the university tells Victor how ancient teachers 'promised impossibilities and performed nothing'. On the other hand, modern scientists

Penetrate into the recesses of nature, and show how she works in her hiding places. They ascend to the heavens; they have discovered how the blood circulates, and the nature of the air we breathe. They have acquired new and almost unlimited powers; they can command the thunders of heaven, mimic the earthquake, and even mock the invisible world with its own shadows. (p28)

The passage is a careful pastiche of Humphry Davy's contemporary chemical rhetoric, although echoes of Francis Bacon can also be heard. We do not know if Mary Shelley ever met Davy but he was known to her father: he was one of the many who had dined at the political philosopher's table. And Percy Shelley's youthful enthusiasm for chemistry had stayed with him to the extent that he urged Mary to read Davy's *Elements of Chemical Philosophy*.³⁸ ...

What we find here are both hints to some hidden story tellers involved in the coproduction of Frankenstein and the imaginative work that Shelley herself does in their company. However, the coproduction has other story tellers too, and Turney continues seamlessly by allowing us to track from Humphrey Davy and the Wollstonecraft's dinner table to criminals, scientists and a reading public for who the story must resonate.

Although the precise details of the creature's animation are carefully obscured in the novel, there are hints that electricity is involved. For contemporary readers this undoubtedly lent plausibility to the idea that life might be bestowed on dead flesh. Percy Shelley had lessons on natural philosophy at Eton from Adam Walker, a well known popular lecturer, who argued that there was a connection between electricity and life. The association was reinforced in the popular mind by public demonstrations, which widely described in the press at the time, in which electrical stimulation was applied to the bodies of recently executed criminals.³⁹

Clearly, the coproduction of Frankenstein is relevant here as it illustrates how both science and literature are more open than may at first appear. Whilst Mary Shelley was thinking and working in stimulating and challenging contexts involving science, family, god and imagination; Davy was experimenting, theorising and writing learned scientific treatise whilst promoting science, generating scientific rhetoric, attending dinner parties to debate and argue and conducting public/ private lectures. Both Davy and Shelley are juggling god, science and imagination.

Whilst *Frankenstein's* relationships with its own contemporary science are now hidden, it is fascinating to observe how the story remains an active coproducer of our own contemporary science, in particular biological science of genetics. Present-day life sciences are far removed from Shelley's time but nonetheless Turney elegantly traces Frankenstein across this gap pausing here and there in time to connect story, science and society ending with the active power that Frankenstein has in the practice and regulation of genetic science. The Faustian, godly, paternal, mad, nurturing, bad and dangerous to know fictions are science in practice. Indeed, it is because Dr Frankenstein overshadows many hidden storytellers to become emblematic of unregulated science that clean suited scientists working with DNA in their clean and clinical spaces are, whether they like it or not, doing so in tight and robust connection with fictional Victor Frankenstein, his creature and God.

³⁸ Turney 1998 page 21

³⁹ Turney page 22

The important point here is that Frankenstein is not simply a myth of science, or even representation of science, it is science. And, this brings me to reflect on management↔fiction connections. Whilst there is considerable interest in *representations* of management the general thrust of this work still carries a strong sense that the object of study is not management itself but is, rather, part of something delimited as popular context within which managers manage, organisations organize and business operate. In such cases, the comings and goings of Storyworld fiction might be seen as politically active in a number of ways. For example as opportunities for audiences to undertake *identity work* as they poll across stories for resonant imagery or as opportunities for art to critique management practice. However, as yet they are not analytically considered as coproducing management. Clearly, this sense of representation as somehow outside or to the side of management is quite different to the coproduction evident in science studies of science.

Management, imagination and practice

In order to close this discussion I want to briefly turn to examine a Storyworld that directly connect management↔fiction. Unlike science, there is no genre category of Management Fiction or even one of Business Fiction. Hence there is no associated classificatory schema for organising these tales in any terms and certainly no talk of managerial utopias or dystopias. Interestingly, the CBI is not organising committees to consider responses to public understanding of management and there are no deep seated refutations of a particularly robust story about a rich man, a camel, heaven and the eye of needle. In short, fiction and public understanding of management is a cool topic in management theory and practice.

However let us play with some what ifs. What if there are managerial equivalents of *Frankenstein*. A story constructed in networks of managing that touch the very heart of the matter and then, through imaginative acts, casts it in deep contrast to its everyday performances. What then? Well, I am too new to this game of management to be able to play this what if and there is no history of management reason to inform this activity. However, I am in a position to offer a little light relief and food thought and with those two intents I now turn to Discworld⁴⁰.

(Faust) eric

The story that I want to close with here is taken from a comic novel of the fantasy genre written by Terry Pratchett “(Faust) eric” and known fondly by aficionados as “eric”⁴¹. Pratchett is a well established extremely popular and extremely funny author who uses the fantastic as a basis for his particular brand of parody. He is also the subject of and to academic perusal and his Discworld fantasy novels have been the centre of a number of studies. The story I take here presented itself because of clear connections with management and managing.

Whilst Eric is a rather surreal and complex story full of intertextual references to other Discworld stories, when it comes to management it is remarkably straightforward. The highly visible management actions in Storyworld circulate around organizational changes and ensuing change management problems. As one would expect with fiction, Storyworld management is massively mobile and fluid, more interesting still it is clearly hybrid and material. The slight twist that may prove either amusing or irritating here is that the organisation undergoing the changes is Discworld’s Hell.

Before we get into managing hell it may be helpful to give a short précis of the sub-plot that involves Hell. Typically, Hell is home to Demons and those poor dead souls who have failed the divine test for heaven. It is not normally home to the living. For reasons too, well basically surreal, to explain two living souls have arrived in Hell: Rincewind, a Wizard from the Unseen University and, the eponymous Eric, a trainee alchemist. Whilst much of the plot involves Eric and Rincewind escaping from Hell, I am more interested in here in matters in Hell, a place very clearly *managed* by Lord Astfgl, *The Demon King*.

⁴⁰ Discworld is the fictional and fantastic Storyworld created by Terry Pratchett and the landscape used in a very long list of popular titles.

⁴¹ Terry Pratchett (1990) *Faust eric: a Discworld novel* London: Gollancz

He had any amount of desk things: notepads with magnets for paperclips, handy devices for holding pens and those tiny jotters that always came in handy, incredibly funny statuettes with slogans like “You’re the Boss!”, and little chromium balls and spiral operated by sort of ersatz and short-lived perpetual motion. No-one looking at that desk could have any doubt that they were, in cold fact, truly damned⁴²

It appears that in thousands of years observing human kind, Astfogl had become particularly interested in ‘modern management’. The character of management appealed to his demonic nature. He had observed that, unlike the tradition so valued in hell of pain, torture and physical agony, humans had successfully worked out very clever means to separate body and soul – management was the key. Hell might have been good at torturing bodies but the humans had the market covered when it came to the soul. Impressed by this aspect of human ingenuity, Astfogl began to change hell, his agenda was to improve efficiency and effectiveness and his toolset *management*.

The shift from ancient and established place of eternal damnation to a modern business environment was never going to be easy, and Astfogl had failures and made enemies. There were those amongst his elder demons who were covetous of his position and, like Lord Vassengo those who “smiled and despised him and not-quite-obeyed him” a behaviour that Astfogl attributed to jealousy⁴³. Clearly, management is emotive and emotional work.

The emotional character of management and operates at many levels. Whilst the wheeling and dealing performances of elder demons may have involved actors in ritualised forms of duplicitous play, further down the organisation things were also changing. For example, once change flowed from Astfogl’s desk to the gates it took on various forms. For the elder demons change was often experienced as memos and policy statements whilst at the gates of hell the changes flowing from Astfogl’s desk have other forms generate other emotional and emotive responses appear. Take for example the situation that hit Rincewind and Eric found themselves in when they unknowingly rang the bell at the door of hell. Not only were they greeted by a ferocious demonic gatekeeper best described by the noun It ...

It also had a badge.
The badge said; “My Name is Urglefloggah, Spawn of the Pit and Loathly Guardian of the Dread Portal: How may I help you?”
It was not very pleased about this.
“Yes?” it rasped.
Rincewind was still reading the badge.
“How *may* you help us?” he said, aghast⁴⁴

The mobile change that can be felt by Vassengo as policy statement and memo appears as a badge at the portal. Now it may seem unnecessary for me to point out the coproduction here, but coproduction there clearly is. For this little moment in Hell to be amusing parody, and possibly even satirically powerful, we (that is the readers/listeners) have to get it. We not only have to get it – but get it politically. In other words it is not enough that the description is authentic such that we can judge this interlude against all the organisation-environment-badge-wearer-script-customer net work that we have ever engaged in, but we also have to come to conclude the same as Rincewind- badges are ambiguous technologies. Pratchett has used his fantastic imagination to play with everyday experiences of badges in management action, but there are hidden others here too – not least varied and very real badges, badge manufacturers and badge advocates out there doing there thing as we speak.

Coproduction suggests that management is these various experiences and performances and connects to stories such as *Eric*, *The Office* and *Dilbert* as they move in the flow of people and things that is social life. These stories are, like Frankenstein, not outside social life but are

⁴² Pratchett 1990 page 34

⁴³ Pratchett 1990 Page 35

⁴⁴ Pratchett 1990 Page 123

constitutive of social life. In other words, Dilbert cartoons do not just caricature management they are doing it.

In Eric, and particularly in Hell, Terry Pratchett is doing management in lots of different locations. Interestingly, he is able to show how locations are part and parcel of performances. For example, the badge is one and relatively weak technology that the demon king has enrolled in his changes and it is marginally reinforced by a script that the gatekeeper (Urglefloggah) is required to utter. This script, peppered with references to customer care and “-full regard for the wishes of YOU, the consumer.” as it left Astfgl’s desk is experienced at the gate as alien, difficult to perform and a definite downturn in service:

“This is Hell, isn’t it,” said Eric. “I’ve seen pictures.”
“You’re right there,” said the demon mournfully. It sat down, or at least folded itself in some complicated way. “Personal service, that’s what it used to be. People used to feel that we were taking an interest, that they weren’t just numbers but, well, victims. We had a tradition of service. Fat lot *he* cares. But what am I telling you my troubles for? ...”⁴⁵

Ah, the managers lot writ large, interesting how Astfgl’s service initiative is experienced in terms of *Fat lot he cares* by the Portal. But...

“That’s modern management for you,” said Rincewind, his face radiating angry concern. “They go ahead and make all these changes, all these new arrangements, and do they consult the very people who form the backbone-“
“- exoskeleton-“ corrected the demon
“or other calcareous or chitinous structure, of the organisation?” Rincewind finished smoothly and waited for what he knew would have to come.
“Not them,” said Urglefloggah. “Too busy sticking up notices, they are.”⁴⁶

It almost goes without saying that trouble was brewing in Hell. The changes that Astfgl had instigated felt wrong to just about everyone. The demons felt that tradition had been upturned, the elders were swamped by paper work and the lower ranks by changing practices that felt intuitively wrong. When the trouble erupted it was Vassengo who orchestrated it and, in his own demonic manner he managed a bloodless coup. The old regime returned – and what of Astfgl, well he not only survived the coup, he was promoted. In fact, it was by promoting him that Vassengo got him out of the way “The position sire, of Supreme Life President of Hell!”... “With you own office-much bigger than the pokey thing you have had to suffer all these years, sire. Or rather, Mr President”⁴⁷. The President took up residence in his office and, with Lord Vassengo’s blessing set about the major tasks of strategic management:

He unscrewed the top of his pen with a firm, decisive hand.
He wrote: What business are we in???
He thought for a bit, and then carefully wrote, underneath: We are in the damnation business!!!
And, this, too, was happiness of a sort.⁴⁸

Linda Hitchin

Linda Hitchin is a sociologist of science and technology. Previously an electronics engineer and a software engineer, she is currently working in working in a UK Business school. Her recent research was an ethnographic study with programme makers involved in a Children’s Science Fiction and she is now researching net work in around digital diagnostic imaging technologies in a UK hospital.

⁴⁵ Pratchett 1990 Page 124

⁴⁶ Pratchett 1990 Page 126

⁴⁷ Pratchett 1990 Page 149

⁴⁸ Pratchett 1990 Page 155