

# 14 The 'awful idea of accountability': inscribing people into the measurement of objects

*Keith Hoskin*

## **Introduction**

'Goodhart's Law' – that every measure which becomes a target becomes a bad measure – is inexorably, if ruefully, becoming recognized as one of the overriding laws of our times. Ruefully, for this law of the unintended consequence seems so inescapable. But it does so, I suggest, because it is the inevitable corollary of that invention of modernity: accountability.<sup>1</sup>

Accountability is more than, indeed systematically different from, responsibility. The latter entails, literally, being liable to answer for duties defined as yours. Responsibility implies stewardship, the proper conserving and use of those things charged to you, whether by an owner, a sovereign, or a metaphysical authority such as God, or the people. Responsibility entails the discharge of one's charge: it demands a reckoning, and in that sense an accounting for how you have conserved and used the things with which you have been charged (whether they be goods, money or powers). Its technical accounting form is therefore the ancient charge/discharge system of stewardship, which can be found as far back as ancient Egypt (Ezzamel, 1994).

Accountability, on the other hand, is in its operation and scope more total and insistent. Not only are duties specified, but the means of evaluating the level of their performance is already prescribed, in implicit or explicit norms, standards and targets of performance; wherefore surveillance over and judgement of performance is vastly widened and deepened. One is no longer just a steward of goods, monies or powers, answerable for past performance and present circumstance. Accountability ranges more freely over space and time, focusing as much on future potential as on past accomplishment, connecting and consolidating performance reports to plans and forecasts. As it does so, accountability in all its processes engages the self more insistently in the successful accomplishment of what is demanded over time and space.

The difference, one might say, is that with accountability there is no longer a simple relay of charge and discharge. Its reach runs both vertically and horizontally, up hierarchies and across boundaries: its presence is more extensive and continuous.

For example, in the modernist accounting world, this reach operates through the linked apparatuses of management accounting, financial reporting and auditing, in all their variants. Accountability therefore subsumes much that goes under the label of responsibility, but goes further. If responsibility entails being answerable to questions, then accountability does not so much dispense with questions as provide implicit answers to questions not-yet-dreamt-of. The constant mutual implication of standard, actual and forecast measures of performance means that what is currently invisible may subsequently become visible. Not only new targets but new *kinds* of targets may at any moment get constructed out of the debris of past success and failure. The 'awful idea of accountability' as one of the first recorded usages of that term, around 1800, presciently names it, is therefore a system threatening continual potential failure, even for those who are consistently successful.<sup>2</sup>

There are two implications that I draw from this initial reflection. First, since the noun-form only emerges so recently, I suggest that its formation is not accidental. Instead, the invention of accountability is one sign of a profound transformation, beginning from around 1800, in ways of seeing, of knowing, and of exercising power – a transformation one of whose consequences is indeed the modern system of financial reporting, management accounting and auditing. I shall reflect further below on how this transformation took place; it is an educational story. However, I am more centrally concerned here with the 'why' question – not least because, while Goodhart's Law elicits a wry smile of recognition, its specific formulation may tend to obscure *precisely* why this transformation took place. For the Law suggests that it is in *becoming* targets that measures become bad, which implies that measures in themselves are not bad. In this logic, measures are presumably either subverted from their course by human frailty, or not yet developed to a sufficient pitch of perfection to preempt subversion.

This perception, if understandably widely-held, is unfortunate. For it confirms people in ways of seeing which presume that 'the target' is the problem. So for system designers and managers, the Holy Grail is taken to be either better targets, or better ways of anticipating and handling a presumed natural-born predilection for beating the target system. In the vocabulary of constant improvement, targets must be designed to forestall the suboptimal behaviour of individuals, and so promote goal congruence with the greater good. So, for example, in order to deal with shopfloor workers who pace activity to depress production 'standards', managers produce slack-adjusted norms. Or to deal with divisional managers who suboptimally maximize Return on Investment by holding back on investment, top managers develop Residual Income as a means of promoting investment in line with corporate objectives. Or, again, to counter the obsession of financial analysts with earnings per share, company directors develop better product cost measures to stop management accounting systems being driven by financial accounting demands.<sup>3</sup>

Now certainly Goodhart's Law by illuminating the inherent futility in regimes of constant improvement, provides a healthy corrective to these calculative fantasies of managerialism. Yet my concern is that it fails to reveal to us why that futility is so inherent. Here I suggest that we return to consider the time, about two centuries ago, when the 'awful idea of accountability' first took linguistic shape. What we will find is that there was *never* an idyllic moment when measures of human performance existed purely as measures, neutral and dispassionate. So there is no need to presume a

subsequent fall from grace into a modernist target frenzy.<sup>4</sup> Instead, the measures *themselves*, in their very genesis, already embody the principle that there should be, and necessarily are, targets.

As such, they are a new kind of measure, both formally and conceptually. Formally, they would seem to constitute a first form of 'human accounting', i.e. an accounting which looked beyond the valuing of objects and services, or the stewardship of goods and monies, to the quantified evaluation of human performance. At the same time, they engineer something that Hume, earlier in the eighteenth century, had attempted, in the name of logic, to proscribe: the conceptual overlap between 'is' and 'ought'. Hume's argument on this point is logically impeccable: no logical conclusion concerning what we ought to do can be drawn from what we do. In other words, there is a logical gap between 'is' and 'ought'. Yet measures that are targets precisely and systematically embody a conflation of the 'is' and the 'ought'; for their nature is simultaneously to describe and prescribe. Therefore – so long as they are produced via a scrupulous and sound method – they purely report what is, and so can hardly, in reason, be objected to. Yet measures as targets also prescribe what ought to be. And in so far as they do so, dispassionately and objectively, on the basis of what truly is, they can, the argument runs, surely be only for the best.

How, though, did such new measures come about? Furthermore, how have they come to be so pervasive? What, in other words, was there that could make accountability so awful, and yet so apparently irresistible? What is so seductive, what so difficult to gainsay, about measures that are simultaneously targets? My answer to the first question is, perhaps deceptively, simple. At the practical level, these new measures came about from a conjunction of certain already-existing practices which had never been systematically conjoined before. These practices included: *examination*, as the formal testing of human activity, *quantification*, the putting of numbers on the activity tested, and *writing*, in the sense of producing an archive of activities, tests, results, and judgements. To the other questions, I suggest that what also took place was a major redefinition of the rational self. Such measures, together with the results they generated, moved from being virtually non-existent to being seen as something both reasonable and self-evident. All this, despite the logical proscription articulated by Hume. Both developments, furthermore, took place almost without notice, despite the transformation that they wrought.

I shall discuss both these issues in more detail below. However, what is significant here is the conjunction of new forms of writing and numerical measurement together with a new definition of the rational self as *self-examining*, not just as something examinable. In this regard, Foucault once referred to a transition, around 1800, 'from historico-ritual mechanisms for the formation of individuality to the scientifico-disciplinary. . . thus substituting for the individuality of the memorable man that of the calculable man' (Foucault, 1977: 193). That is the transition which I now address in more detail in order to show how essential were *both* aspects of the transformation – the conjunction of the new practices and the reconstitution of the self.

## **Pedagogy, human accounting and the doubling of the self**

Necessarily, such a brief programmatic statement leaves much as yet unresolved. Even at this stage, however, it should be clear that the approach I am adopting is not likely to

discover accountability's genesis within the world of business as such. This is an additional, more literal, reason for describing this as an educational story. For the kind of human accounting I have just described, these writing, grading and examining practices, were inventions not of business but of the educational world – first developed, it seems, within elite eighteenth-century institutions of higher education. Yet how could such pedagogic practices have engineered a discourse which now has grown to have such global economic, organizational, and also psychological significance? And how might they relate to a fundamental reconstruction of the self? It is to these issues that I turn in this section, before going on to consider the wider issue of how these forms of accountability then penetrated into the business world, to supplement and then replace an older gentler regime of responsibility.

My explanation, like other late-modern approaches that have begun to focus on the power of practices, begins from the observation that, since around 1800, we have entered into a world peopled by certain new institutional and economic forms – such as the modern governmental state and the corporate business enterprise – and equally peopled by selves who partake in a new self-fashioning project, wherein identity and success are putatively self-defining and self-defined, whether evaluated along objective or reflexive lines. But I would further suggest that such transformations are linked aspects of one change, in which case, again in late-modern vein, my argument is that they must have their genesis neither purely at the social level nor within the self (for then either the self would become purely socially constructed, or the social purely a superfluous projection of the self, either of which explanations becomes self-refuting). In other words, *practices*, being neither purely social entities nor properties of individuals, are the sole means through which such a double form of transformation may be effected.<sup>5</sup>

Yet, more particularly, why should it be such obscure *pedagogic* practices that engineered such change, practices whose adoption was hardly noticed even in their own time? My answer here is in part that it is precisely their invisibility which made such practices so transformative. But also, the significant social point is that these practices were encountered, and internalized, by that elite who were in the privileged position to remake the fields of intellectual knowledge and social power; and there is an equally significant epistemological point: that it was only members of that self-same elite who were concerned enough about the epistemological status of the rational self (a self so close to their own hearts) to engage in a debate which would result in the redefinition of that self as self-examining.

Historically, then, a pedagogic revolution took effect in the second half of the eighteenth century. Fairly abruptly, and without any apparent direct cross-fertilization, it appears that, in different European countries, students were suddenly brought under an insistent practice of being closely examined, having to write for the purpose of examination, and being evaluated rigorously on the basis of their writing (Hoskin, 1993: 280–95). Such demands were made, in different specific configurations, but with certain underlying regularities: for instance, in Germany, with the reform of the university 'seminar', beginning at Gottingen from around 1760: in France, with the introduction of examined laboratory practical work in some of the *Grandes Ecoles* from the 1770s: in England with the development of written examinations for the Mathematical Tripos at Cambridge University, again from the

1760s; and in Scotland at Glasgow University, where demanding *extempore* examining of students in the classroom was introduced, also from around 1760.

What I would then suggest is that this new conjunction of pedagogic practices had a double effect. First they exerted a 'psycho-pedagogic' power in the way that, as part of everyday schooling, they could get inside those who learned under them, constituting a new regime of 'learning to learn'. Both as students and teachers, an elite group internalized the idea that real learning was the getting of written, examined knowledge; they could subsequently translate that assumption into the various fields of knowledge they colonized, developing a new power for knowledge, as intensive research-based expertise. [It is noticeable (Hoskin, 1993, *ibid*) that the various distinctive forms of modern disciplinary knowledge emerge from within these sites. From the Seminar comes the first modern Arts discipline, philology, from the Laboratory comes modern 'big science'; from the world of the reformed Mathematical Tripos come those apostles of mathematical and computing reform, Peacock and Babbage (cf Schaffer, 1994); and from a teacher in the Glasgow classroom world, Adam Smith, comes the quintessential social science, economics. In the latter case, it is worth pointing out that the internal coherence of modern economics crucially depends on the conceptual adequacy of a new version of the rational self long familiar as 'rational economic man': as we shall see, what Smith developed was a pure psycho-pedagogic invention, the self-examining self: a new form of the rational self which brilliantly, if problematically, transformed the idea of self-interest from a process with wholly negative connotations into 'an acceptable and eventually into a highly commended drive for modern man' (Myers, 1985: 2).]

At the same time these practices exerted a 'socio-organizing' power. For in a parallel process of translation, members of the knowledge elite began to restructure a whole range of social settings into the disciplinary image. The social world became populated by new entities where writing, examining and grading were endemic: and it was not just that such entities could be run via these practices, e.g. in those modern managerial systems exhibiting what Alfred Chandler describes as 'administrative co-ordination' (Chandler, 1977); they could also be made visible representationally as integrated, almost-living wholes, endowed with quasi-organs, in 'organ-ization' charts. It was a transformation which could then appear almost natural, particularly as more and more of the individuals in these organizations became reconstructed, through their own learning to learn, as rationally self-examining and 'organized' selves (cf. Hoskin, 1995). Herein surely, prisons, schools, hospitals, factories, universities, state bureaucracies and corporate oligopolies most resemble each other, as both the social world and the self become more and more subject to a writing, grading and examining which together ensure the meticulous and continual circulation of plans, examinations, reports, feedback and feedforward evaluations – knowing me, knowing you, in our respective truths.

This, I suggest, is the context in which the 'awful idea of accountability' could suddenly emerge and become so irresistible. This transformation, whereby the pedagogic arena suddenly became flooded by numbers combining 'is' and 'ought', and wherein we became selves whose rational identity was constructed through a mix of external and internal examination, produced a context where 'accountability', to self and to others, could become a self-evident rational good. Precisely how this came about is the subject of my next section.

## The self-examining self and the miscegenation of 'is' and 'ought'

'When I endeavour to examine my own conduct . . . it is evident that, in all such cases, I divide myself, as it were, into two persons and that I, the examiner and judge, represent a different character from that other I, the person whose conduct is examined into and judged of.'

(Smith, *The Theory of Moral Sentiments*, Part III, 'Of the Foundation of our Judgements concerning our own Sentiments and Conduct, and of the Sense of Duty', chapter I, section 6)<sup>6</sup>

This formulation of the self, as rational through being divided into two, appears to be unprecedented in western history, violating a previously presumed unity of self. It does not emerge, of course, in a vacuum. I have suggested (Hoskin, 1995) that it be understood as a step beyond a prior construction of the rational self as immobile 'viewing self', an apparent unity that looks out on the world as through the perspectival window, a way of seeing most powerfully captured in fifteenth-century Italian art.

Again this self, I have argued (Hoskin, 1995: 145–55), is not what it seems, since it is a product of prior practices of writing and examining that emerged in the medieval period, from around 1200 on. In effect, it is a self that occupies a zero point, which had been introduced with the development of the zero as '0', first found following the combination of alphabetic and arabic numerals in the medieval west, and it is also a self which, from that zero point, puts the world under critical examination, in a way developed first in the medieval university.

In other words, it is not purely an artistic production, this self. On the contrary, the artistic is one particularly compelling version of a self, which is equally predicated in such (earlier) breakthroughs as double-entry bookkeeping. Here, in the same way, debits and credits are observed from a zero point, whence they stretch out to record transactions in mirror entries, kept systematically with cross-references in ledgers and supplementary books; so that the form of entries, properly observed, ensures that every incoming and outgoing is located in an order that permeates the whole and is thus always available to inspection from the zero point.

Further the apparent unity of this self is as much an illusion as the all-in-focus view produced by the process of geometrical perspective: for technically it is the fusion of two viewing points, the fixed view from in front (which looks to the 'vanishing point' of infinity within the picture), along with an equally-perspectival view from sideways on (the 'distance point' operation). Only the combination of these two views makes it possible to chart both the vertical and horizontal coordinates (the orthogonals and transversals) of everything located within the two-dimensional pictorial space, in such a way that everything appears in proportion and focus (in a way that is of course impossible in viewing the three-dimensional world, where only one aspect will be in focus at any one time).

Epistemologically, the significant thing is the way that this new 'unitary' viewing is then internalized as the way of seeing the thought-world. We enter the era of what Richard Rorty has described as the 'representational' view of language, language as 'mirror' of the world: but such a view of language crucially depends on the assumption of a fixed and focused place to view both language and the world, in other words

viewing as through a window onto a thought-world where everything is, when understood, captured clearly and in focus, as in the orthogonals and transversals of the perspectival painting.<sup>7</sup>

Such a way of seeing, inevitably and reflexively, came to affect the way of viewing the problem of the self as well. Most significantly for our concern here, this way of seeing was deployed by Thomas Hobbes, in the 1640s, to raise the ethical problem of self-interest, and how to reconcile the destructive tendency to selfishness with the good of all. This problem is so significant for our purposes here, because it was in confronting the problem of the relation between reason and self-interest posed by Hobbes that Hume focuses on the problem of the relation between 'is' and 'ought'. Hobbes, the great theorist of the State, had looked out (from his rational viewing-point) on the problem of the selfish self, and perceived the necessity for labile self-interested individuals to be constrained within the orthogonals and transversals of Absolute Rule and Law (Hoskin, 1995: 156). Since, for Hobbes, self-interest could not be curbed by reason, selfishness would always win out. Hence the need for the absolute power of the state, in order to counteract self-interest, for the good of all.

Hume, like other Scottish Enlightenment thinkers, wished to re-establish the ethical basis of individual life, and rescue the self from this bleak domination by irrationality: hence the importance, for him, of discriminating 'is' from 'ought', on the way to establishing a rational basis on which individuals could be shown to be capable of developing a moral sense without degenerating into selfishness. To this end Hume, before Smith, proposed that the self becomes ethical by considering how one's actions are viewed by an 'impartial spectator': in such a way, what 'is' becomes subject to an independent ethical touchstone of what 'ought' to be.

Yet, paradoxically, Hume's proposal opens the way to a new miscegenation of is and ought, since it fails to solve the Hobbesian problem, being open to the objection that the self could always ignore any Other, even the impartial spectator, and so succumb to selfishness once more. The subsequent 'resolution' of the dilemma is that proposed by Smith in the quotation that heads this section. Here it is made impossible for the self to ignore the Other by redefining the Other as part of the self, and so producing a new form of rational self as a split, two-sided unity, the self which acts and the self which examines those acts.

In a sense this is a continuation of the kind of viewing that Hobbes and Hume had already undertaken. Where Hobbes had looked out, through his perspectival window, onto the foolish and selfish selves in the thought-world beyond, Hume had attempted to construct a sort of reverse viewing, from the thought-world beyond, back on to the self who views. Hume's formulation of the impartial spectator paints a picture wherein I become ethical by looking through my window on the world and seeing there some moral Other, the impartial spectator, whose surveillance of me ensures that I develop moral sentiments. On this reading, what Smith achieves is a step beyond this, by discovering on the far side of the 'window' a mirror self, the self that examines, which stands in for and replaces the Other as judge of self.

Yet in fact, what he has done is expose the illusion in the idea that the self was ever a unitary immobile in-focus rational viewer, while replacing it with a new illusion, of the split unity, the rational because self-examining self. In art-historical terms, this was by then nothing new. For as Svetlana Alpers has memorably shown, the initial Italian form of producing perspective, viewing as through a window, had

been technically superseded by 1500, by a technique which effectively framed *both* the vanishing point *and* distance point operations in a more global overview, thus producing a way of seeing wherein the viewer is no longer situated in front of a window, but is already *within* the space viewed. It is, as she describes in *The Art of Describing* (Alpers, 1982), the archetypal viewing disseminated in Dutch art, where it is as if the viewed world comes out to envelop us within its space, as what is depicted 'seems to extend beyond its bounds as if the frame were an afterthought' (1982: xxv). Henceforward the viewing self is liberated to view in focus not just as through a window but from any point in the viewing space.

The self can even self-knowingly acknowledge the nature of the perspectival game, producing pictures where the artist paints himself within the frame of his picture, but looking out at where he, the artist painting, must be. In the extreme reflection on this *faux-art* of representation, Velasquez, in his painting of around 1650, *Las Meninas*, depicts himself in the act of painting a canvas whose back alone we can see: so he is both without the frame and within, caught in the act of painting and looking out, as examiner of his act: but he also, by means of a mirror placed on the rear wall depicted in the painting, enables us to see the subjects of the canvas whose back alone we can see from in front of the picture – the King and Queen of Spain, who must be occupying the same space before the picture as Velasquez, as painter, and us, as viewers. . . . (Hoskin, 1995: 154–5).

It is this type of viewing that Smith now introduces to the thought-world. Yet this is not just an 'artistic' achievement. For Smith's new ethical double-self is a self-examining self. With Smith, examination penetrates to the very marrow of the soul. In other words, Smith solves the problem that Hume could not, by changing the rules of self-construction via an audacious double play. First, although there must still be a logical distinction between is and ought, there is no longer the absolute distinction that Hume could maintain, by keeping a separation between the self representing what is and the impartial spectator representing what ought to be. Smith has deconstructed that absolute separation by turning the Spectating Other into the Examining Self. Simultaneously, by introducing this idea of examination, he has turned the Other from passive observer into active judge. It is the two aspects of the change together that solve the Hobbesian dilemma. For now self-interest can now be *guaranteed* to be rational, thanks to the practice of self-examination undertaken by the two-sided perspectively viewing unity.

In effect, Smith has constructed the first self with its own auto-pilot (and so, by way of an afterthought, has established the basis for the invention of rational economic man). At the same time, he is aware that there is some level of sleight-of-hand involved, some unstable fulcrum to this supposed superior rational self.<sup>8</sup> In that respect (Hoskin, 1993: 294): 'Smith's solution was no solution at all. For it did not overcome the Hobbesian problem; instead it defined it out of existence by moving the goalposts.'

Yet, by the very fact of being invented, this new version of the rational self became internalizable. What I would then suggest is that this began to happen as more selves became subject to the kind of rigorous examination that Smith invokes here. Here, in one fell swoop, is the explanation why Smith came up with this new formulation – it was to hand for him in his everyday life, since he was in the Classroom world of Glasgow University a teacher who deployed examination as a practice for making



students learn (Hoskin, 1993: 289) – and the explanation why increasing numbers should have then internalized it – as they became subject to increasingly rigorous forms of this examination. For me the deciding moment is when students become subject to numerical grading, and so part of a regime of quantifiable human accounting, where the numbers both describe your actual performance and imply a truth about your underlying 'ability'. Here the confusion between 'is' and 'ought' which Smith has initiated by the miscegenation of Self and Other takes on a more insistent dimension. For here we have measures that tell a double truth about the self, and which engender a new two-sided concern with getting good marks, as the blazon of success, yet we know that always there lurks the possibility of the total zero, the mark of failure, humiliation and total non-identity. It is this emergent feature of this educational story to which I turn next.

### **From number one to total zero: success and the fear of failure**

What is so compelling about the invention of these new pedagogic practices is the way in which they take over selves, in just the awful yet irresistible way that marks all accountability systems: even where people are aware of the logical and psychological dangers, like Smith, this miscegenation of is and ought cannot be thought or wished away. Here was an apparatus that embodied the means for measuring human profit and loss, producing measures that simultaneously defined your actual 'worth' and provided a valuation of the truly virtuous, successful, or passing performance (while equally defining the crime of failure): an apparatus therefore fit, as Foucault once put it, to judge individuals 'in their truth' (1977: 181).

Let me give just one example from the reformed world of elite education: the innovation of rigorous written examination at Cambridge and then at Oxford Universities between 1760 and 1810 transforms the psycho-pedagogic field within which selves operate. At first, there is a new culture of success, as at Cambridge where the few very 'best' students vie to become Number One, i.e. Senior Wrangler in the Tripos Examination (the terms betray an older examining world, here superseded: Wrangling was the practice of spoken disputation on set topics, i.e. oral examination of a type first developed in the medieval university, the Tripos was a stool that one occupied in order to claim the right to dispute). Quickly this becomes a mark of personal and institutional success, a sign of inborn virtue which reflects well on the Cambridge college of which the Senior Wrangler is a member: equally quickly, now that this measure is explicitly a target, college tutors begin trying to beat the system by finding ways to 'prove' that their candidate is best and that feared challengers are less good. This, of course, is not difficult since the examination structure is still fluid, and semi-oral. Examiners set questions orally to individual students as they finish a previous written answer; individual examiners can set particularly hard questions to particular targets. And answers are evaluated in qualitative terms, as excellent, very good, X is better than Y, etc. It is in fact in consequence of the induced failure of the measure to be a good measure that in 1792 one Examiner proposes that all questions shall henceforward be marked numerically, so that is and ought will be brought into proper alignment, and the best candidate will be declared Number One (Hoskin, 1979).

We now know what would ensue: the never-ceasing procession of attempts to

produce valid and reliable measures of an underlying ability, which always just eludes perfect capture. But equally what ensues, psycho-pedagogically, is the full impact of accountability: not just the glory of success but the fear of failure. This phenomenon, now something treated as virtually endemic, is something marked virtually by its absence before the examining change. It emerges indeed even before the introduction of numerical grading, at the earliest stage of reform. In the case of Oxbridge, it has been particularly studied by Sheldon Rothblatt, who notes the eruption of this new dynamic. As early as the 1770s, the Cambridge student Isaac Milner, who would go on to be Lucasian Professor of Mathematics and Vice-Chancellor of the University, and who was indeed Senior Wrangler and 'so superior to all his competitors that the Moderators put the word *Incomparabilis* after his name', already was infected. He recalled years later that 'he had been in a very desponding mood and had feared, till the result was known, that he had completely failed' (Rothblatt, 1982: 6).

The pressure intensified once all students became subject to the system, once it was both written and graded. Such future luminaries as Robert Peel, as a student at Oxford around 1810, just after written examinations were introduced, 'contemplated bowing out of the competition' under the pressure, and was only dissuaded for fear of letting down his father: Peel became the first student to get a Double First Class, in classics and mathematics. Rothblatt gives a number of other instances, including one of an attempted suicide from the 1830s: a case where the behaviour cannot be explained instrumentally, by a need to succeed in external social or economic terms, for this was still an elite world of young men predestined to succeed in those terms. The pressures were intra-familial and psychological: the numbers were a measure-target that could no longer be ignored. Identity, honour and self-esteem were at stake, and there is no ultimate touchstone of success that is impregnable. We enter a world where even external success can be seen as failure internally: Rothblatt mentions a future Bishop of Calcutta, Middleton, who leaves Cambridge 'bemoaning the circumstances that prevented him gaining the Chancellor's Medal', and bemoaning it all his life (1982: 10).

All this goes to show how easily both a new psycho-pedagogic and socio-organizing dynamic was set in train, once these pedagogic practices had become taken for granted as fundamentals of our everyday reality. Of course, in different cultures they could be taken up in different specific ways, and one such distinctive difference that I have concentrated on in previous work concerns the way in which, in the USA, these practices were translated into an effective new economic form, managerialism. The point of this is not to claim that there was some special genius about the American approach to deploying these new numbers that ensured that managerialism and its associated accountability in the workplace would triumph where in other countries they languished unrecognized. It is apparent, on a number of grounds, that similar initiatives were attempted in other countries. For instance, Simon Schaffer has recently pointed to the way in which one of the new Cambridge examination successes, Charles Babbage, a successor to Isaac Milner as Lucasian Professor of Mathematics, and one whose father was a wealthy banker, not only worked on his calculating engines for their inherent mathematical pleasures, but saw them as a site of 'intelligence', which could transform manufacture and the factories in which manufacturing work was undertaken. Babbage, as 'philosopher of manufacture' (Schaffer, 1994: 206), was as eager to apply the calculating machine to the development of successful mass interchangeable-part manufacture, and thus to an associated

form of labour discipline, subject to the intelligence of the machine, which now became the 'site of intelligence', as any of the US managerial reformers.

The significant difference in the US context, something that marks it off from all prior approaches to handling workforces and work, is the continued absence elsewhere of an effective technology of human accounting. It is this that marks, in the economic world, the transition from responsibility to accountability.

## Translating responsibility into accountability

The claim that accountability was absent from work organizations before the nineteenth century is undoubtedly, to the perfect empiricist, unproveable. For it is always possible that there was some earlier system, which operated with perhaps implicit standards or targets and systematic measurements of human performance, before this historical moment. However, if one goes over the available historical record, the evidence for such a system is not forthcoming. There appears to have been an absence of systematic shaping and controlling activity up and down hierarchies; and there was no quantified accounting for human performance – though there was much accounting for goods and objects, which took place frequently in systems where people were answerable for the discharge of certain charges, and in that sense were subject to *responsibility*.

Under such systems, down through the eighteenth century, the dominant form of operative power relation was that of stewardship, and the form of one's responsibility was to be answerable after the fact and *grosso modo*. So, for instance, on ancient and medieval estates, the steward (or bailiff or reeve) would be called every so often to account (perhaps annually, perhaps more sporadically), and made to answer for the detail of their stewardship. There would typically be some inspection of receipts and payments of money and produce, a form of information which is already found on estates in Greco-Roman antiquity (Macve, 1985). There might be an elaborate formal ritual, as in the medieval audit, the solemn and detailed hearing and examining of these accounts.

But this was hardly modern accountability. First, the whole temporal orientation of the process was focused on what had or had not been done. It faced the present to the extent that the accounts were a record kept up to date, but principally it faced the past. This applies even where we find a form of prescriptive judgement being exercised, as happened in many medieval audits. Here the evidence shows (e.g. Drew, 1947) that the auditors, in drawing up their final account would enter:

not merely the actual transactions, but those which the auditors considered *should* have occurred. They would rewrite the entries in the accounts to reflect, e.g. the 'expected' yield of a field or a flock, and thereby surcharge the bailiff or reeve for the additional amounts due to his lord.

(Hoskin and Macve, 1986: 115)

Two observations stand out here. First, the *grosso modo* nature of the control exercised is evident, as soon as one realizes that the 'expected' yields inscribed by the auditors were often so much higher than the actuals recorded that the surcharges then levied might be two or three times the official's annual salary (cf Drew, 1947). This is assuredly a use of knowledge to enact power, but it suggests a system where both sides operated on a presumption of considerable slack in reported 'actuals', and where

the problem for the steward lay in estimating how frequent and rigorous audits were likely to be, and so how much one needed to secrete in advance.

Second, the ex post nature of the control, the focus on what has been done, is clear. The auditor, in quantifying expected yields, did not apparently do so as a target for the future; what was being compared was the actual performance recorded against what should have been expected, given what was now, ex post, known concerning labour and raw materials employed, and other relevant circumstances (e.g. the weather). What is signally absent is any focus on the control of future events, along with any deployment of human accounting measures on the steward's performance (for the accounting focuses purely on materials and objects).

Now an argument can be made that, from this medieval period on, a more insistent kind of 'control' was exercised over stewards – 'control' itself being a medieval invention, referring to a new textual form, the counter-roll, or in French the *contre-rolle*, a text that for the first time excerpted and abridged books of primary record, thus providing a new way of exercising power at a distance through writing (Hoskin and Macve, 1986: 114). However, even in later cases where business and economic historians have found evidence of advanced forms of exercising control and using accounting information, e.g. in Britain at the Crowley Iron Works (c. 1710), the Wedgwood pottery (c. 1770), the Boulton and Watt manufactory (c. 1800), as also in Italy at the Venice Arsenal, in Spain at the Seville Royal Tobacco Factory (c. 1770), or in the USA in certain textile mills (c. 1800), the argument is not easily made that accountability was exercised.<sup>9</sup>

Even recent re-evaluations of the evidence (e.g. Fleischman and Parker, 1991) fail to find the extension of managerial control types of initiatives over time. Cost experiments, such as those at Wedgwood, were not utilized to co-ordinate production, control costs and maximize productivity on a regular basis into the future. Even in cases such as Boulton and Watt, the Venice Arsenal and the Spanish Royal Tobacco Factory, where there is evidence of measuring worker performance and the establishment of cost data on products, it does not appear that standards of labour performance were effectively imposed and utilized over time to ensure productivity was maintained into the future. Such cases show that modern techniques could be envisaged: the problem lay in constructing a work regime where they could successfully be implemented.

What is lacking is 'any approach which simultaneously analysed both financial and human performativity, rendering the interrelated but separable values of products and persons jointly calculable' (Hoskin and Macve, 1994: 80). Instead, such managerial breakthroughs, and with them the deployment of technologies of accountability, appear to have first developed in the USA from the 1830s, as Alfred Chandler details in *The Visible Hand* (1977). However, my argument here has been that this did not happen as the 'response' to some ex post imputed 'need', the demands of the Industrial Revolution for example. It only transpired when a new constellation of disciplinary practices were jointly established, operating psycho-pedagogically and so making possible new forms of socio-organizing. In this respect, what first took place was a re-writing or re-constructing of the self, as a self-examining, infinitely calculable construct. The point that I have made in previous work is that this was successfully engineered in the US, not by businessmen (for they were too busy defending short-term profits and keeping costs low), but by men equivalent to Babbage in their background and pedagogic training. The sole difference was that in the US case,

these men were given the direct and extensive financial and institutional support of the State in implementing their disciplinary innovations.

The men involved, as rehearsed elsewhere (e.g. Hoskin and Macve, 1993), were not businessmen but certain ex-cadets, who had first learned under the practices of writing, examining and grading, in the extreme disciplinary regime introduced into the US Military Academy at West Point from 1817. In terms of the successful development of the modern factory, the key figure is an ex-cadet from West Point, Daniel Tyler, who graduated in 1819, and introduced these practices into the Springfield Armory in 1832, undertaking a time-and-motion study. Here 'is' and 'ought' were brought into the most explicit and close symbiosis. For Tyler spent 6 months 'watch in hand' examining every aspect of production not just to establish averages of what *was* done, but to calculate norms of what *could* be done by the good worker working properly, and so to establish fair prices for standard performance. [This, be it noted, is 50 years before F.W. Taylor deployed the same approach and called it 'scientific management'.] The new approach, at first resisted by the work-force, was only introduced in 1842. As soon as it was, targets both for production and unit cost were both set and enforced (for instance in the barrel-welding department productivity doubled while unit costs halved). Now the workplace game of modern disciplinarity and resistance could begin. At the same time, it was the then-proven *economic* superiority of this new disciplinary approach, in enabling the increase of productivity while cutting unit costs, a pay-off which came about because of the State support for the men like Tyler, which ensured that theirs, rather than the parallel efforts of a Babbage, became the breakthrough to modern managerialism: which now, as Chandler rightly points out, dominates the global oligopolistic economy, whatever the particular form the managerial organization may take.

## **Modernity, post modernity and the self-accountable self**

With formulations like Goodhart's Law, we now have a strong ironic awareness of the futility of measures that are targets. For this reason, I want to conclude this reflection on why accountability should have emerged around 1800 with a reflection on its status today.

The question arises as to whether we have here an epoch that has almost run its course? Whether this essentially modernist 'self-examining self' may now be giving way to a more reflexively aware and postmodern self that may transcend these dour, calculative pedagogic practices? It may, of course, be so. But what must be taken as given is that the practices that produce accountability have not as yet been superseded. We still learn under the regime of writing, examining and grading, and we still continue to be known in our truth via these practices. Accordingly, there is a 'regime of truth' at work here, to which we have to be committed. We are calculable, and yet also calculating selves, even while we recognize the systematic weaknesses, not to say untruths, that the regime produces.

I would offer just a brief reflection on this, taking as my starting-point one of Foucault's last observations on the nature of modernity and of the self within it. The question he poses, in the late paper 'What is Enlightenment?', is whether we should 'envisage modernity as an attitude rather than as a period of history' (1987: 39). In part, he is aiming a subversive shaft at the possible metaphysical trap which lies in invoking 'an enigmatic and troubling "postmodernity"' as a temporal period (ibid). But

he is also, in line with his emergent concern with the way practices produce discursive regularities, wishing to reflect upon the way we may be saying one thing, yet still be constrained to do quite another. So today we seek liberation, and envisage ourselves as postmodern selves, but obtain only hard work as our means of self-realization. Perhaps this is something that is becoming increasingly clear with the inbuilt accounting-driven push to delayering and unemployment: so that without work we encounter a fundamental threat to identity. In Foucault's own words: 'Modern man . . . is the man who tries to invent himself. This modernity does not "liberate man in his own being"; it compels him to face the task of producing himself' (1987: 42).

There are many modern sites where we might find this exemplified. The one I would choose to reflect on here is particularly poignant, because it has such a postmodern profile – Lloyd's of London. For here we have a highly visible example of (architectural) postmodernity, in the Lloyd's building of Richard Rogers. Yet, in line with Parkinson's (Other) Law concerning organizations and buildings, which states that perfection of planned layout is achieved only by institutions on the point of collapse (or you move into a new building at your peril), Lloyd's exhibits a beautiful conjunction of the postmodern with the modern, which suggests that the power of the latter still dominates. For Lloyd's has combined its architectural renaissance with an accounting and managerial reformation which has in effect moved the institution from a pre-modern form of accounting control, where agents ran syndicates with minimal formal accounting systems and a very personal face-to-face style of decision-making, to a strongly managerialist one (Gwilliam, Hoskin and Macve, 1992). Over the past few years, not only have syndicate accounts been made subject to standard reporting requirements, but new forms of financial reporting, which shadow as far as possible the Return on Investment and Earnings Per Share measures familiar in other business sectors, have been adopted, as a means of giving visible evidence of financial probity and reform. Now arguably such reforms were politically and organizationally prudent, following the financial scandals of the early 1980s, and the still-unquantified costs of asbestosis claims that have emerged more recently. So behind the postmodern facade, it is rational to adopt the implantation of the kind of financial and managerial systems of accountability which first emerged in the US over a century ago.

But the unresolved question, as with all these measures from the outset, is whether they actually provide what they claim to, a truer, more reliable and valid perspective on 'what is'. It is the problem perceived in one way by Smith as he invented the self-examining self; the lurking problem of the logical contradiction at the heart of the whole accountability exercise. And this problem is perhaps now perceived even more clearly by people in general, given that we inhabit the would-be-postmodern era of late modernity. Accountability emerged as breakthrough in power-knowledge relations, a new technology that was manifestly incredibly powerful and apparently reasonable (self-evidently so, to the modernist self-examining self). Yet it is still open to the fundamental Humean objection that there is something inherently illogical in combining the 'ought' with the 'is'.

## **Conclusion**

Hume's logical gap, I suggest, is precisely what shows up in the extended version of Goodhart's Law. It is not just system-beating, degenerate or unethical self-interest that

keeps the law in place as a fundamental principle of modernity. It is the logical contradiction within which we are all placed by being subject to measures that are also targets, regardless of our degree of individual willingness to adopt system-beating practices.

So what do we do when we confront an 'unfair' is/ought contradiction? Where the inherent illogic shows through clearly, what we are bound to do is find some way of redefining the self, a means of self-preservation, which will handle the injustice produced by the measures of self-examination. In the interplay between practices and ourselves, as self-examining selves, many possible relations then obtain. We may become defined, as is evident in the chapter which follows, as 'centres of discretion', by the action of the existing centres of calculation that obtain in a given organizational setting.

As centres of discretion, however small and however focused, we are required to make ourselves visible in our judgement, backed wherever possible by appropriate and plausible calculations. In this fashion we are required to make our conduct (and our selves) self-evident. Yet we are well aware that we are not doing so as pure rational selves, revealing the truth as such. Accordingly, we may find tactics to maintain our self-respect from having conducted ourselves in line with this compelled, and compelling, self-evidence. We may resist identifying ourselves with what we do by, say, redefining a real self in opposition to this self-examining self (thus perpetuating a division between the 'is' and the 'ought').

Alternatively, we may define our self as the only rational one able to see through the truth regime, and its untruth, thus imputing to other agents various levels of stupidity and self-delusion. We may look for a reaffirmation of identity in forms of resistance, overt or covert. For the crisis of confidence engendered by accountability is one shared equally by the shop floor and those at the top of organizations. All who administer and experience these numbers are equally as aware of their in-built futility.

This, then, is the one form of truth that seems inescapable about this particular regime of truth. Born of a fundamental irrationality, it is something that is not directly resistible. This is not simply because its institutional apparatuses now dominate the whole social world. Nor is it because the logical weakness that inheres within the self-examining self, and within these measures as targets, means that its power is never total. Rather, in so far as we still occupy a world of modernity, (as I suggest we do), we must recognize that the practices of accountability remain our practices; and that such practices, even as they fail, continue to have their own form of success.

So accountability may remain trapped by its illogic: which is why it remains such an 'awful idea', in one sense of the word. At the same time, the more it fails, the more it succeeds. This aspect of accountability is attested and exemplified by such cases as Lloyd's of London, where managers, even though they may be in no better position to act more wisely on behalf of syndicate holders, at least now have an identity as modern managers. They can join the modern world, no longer sensing their practices are quaintly out-of-date. And, additionally, they have the means of accountability available, which will, period on period, make visible that what they 'are' doing is what they 'ought' to be.

## Notes

1. 'Goodhart's Law', as originally defined by Goodhart, referred only, it must be said, to the money beloved of monetarists, stating that, as soon as a particular instrument or asset is

- publicly defined as money in order to enable monetary control, it will cease to be used as money and replaced by substitutes which will enable evasion of that control (Goodhart, 1989). No matter: the susceptibility of the initial formulation to such more general redefinition only confirms the truth of the underlying insight.
2. The *Oxford English Dictionary* gives examples of the adjective 'accountable' dating from the sixteenth century, but of the noun form 'accountability' only from around 1800. Johnson's 1754 *Dictionary* does not have the noun, but Webster's *American Dictionary* of 1828 does, with the 'awful idea' phrase as its sole citation.
  3. I mention this last possibility, as it is one of the arguments proffered for introducing Activity Based Costing as a means of re-engineering management accounting 'excellence', in Thomas Johnson and Robert Kaplan's *Relevance Lost* (1987). We await definitive proof, some with less-than-bated breath, as to whether ABC will have this desired target-refocusing effect.
  4. This is not to deny the importance of exposing the existential dilemmas posed by targets to humans within the modernist world: e.g. the ever-presence of the means-obsessed desire for some advantage that will guarantee the required result: the openness to the post-Faustian bargain (post-Faustian since one trades not for lasting power but for next period's, and next period's, and next period's, success). Nor is it to negate the further implication of Goodhart, that each time some new unanticipated edge has been discovered, it can at best be countered, until, Hydra-like, the next new system-beating process sprouts forth. My point is that even such dilemmas do not prove that measures only generated them when they became targets.
  5. My own view is that change ensues when a new 'order of practices' begins to operate both socially and within the self. The idea of such an 'order' is modelled in part on Foucault's idea, set out in his inaugural lecture at the College de France, that there is an 'order of discourse', i.e. an historically specific but overlooked level of language which lies between the deep structure of *langue* and the surface form of *parole* and which is in fact the guarantor and genesis of both (Foucault, 1981). At the same time, it draws on the emerging recognition that Foucault himself was becoming in his late works a 'theorist of practices' (cf McNay, 1992), who therefore carefully and deliberately describes his last major project on the 'care of the self' as a cross-breeding (*croisement*) of 'an archaeology of the problematics of, and a genealogy of the practices of, the self' (Foucault, 1984: 19). It now seems to me that, like the 'order of discourse', the 'order of practices' is something which has been overlooked: located, as it is, between the social and individual levels of action, it is similarly the guarantor and genesis of both (Hoskin, 1994).
  6. The citation comes from the second edition of the *Theory of Moral Sentiments* (Smith, 1976: 109–12). As I have explained before (Hoskin, 1993: 290–2), Smith does not reach this solution all at once, having attempted in the first edition to retain Hume's idea of the outside impartial spectator, until he is driven to realize how it is self-defeating. He is, in this, excruciatingly aware of the importance of not violating Hume's is-ought distinction, arguing in this edition that we validate our moral judgments by 'some secret reference either to what are, or to what, upon a certain condition, would be, or to what, we imagine, ought to be the sentiments of others'. At the same time, he sets up the examinational wherewithal for his new solution, for he already states that, if we are genuinely rigorous in our moral judgement, we 'endeavour to examine our own conduct as we imagine an impartial spectator would examine it' (Smith, 1976: 110, 1st edition variant).
  7. Such a way of seeing arguably reaches its highest expression in the Cartesian view which, whether looking outward to consider the *res extensa*, or inward to the *res cogitans*, views like the perspectival artist – as a unitary viewer, who supposedly sees everything dispassionately and in correct proportion. In the Cartesian '*cogito ergo sum*', the thinking 'I' must be as one, a unity, with the 'I' who am.
  8. In the very passage where he invents this new self (cf Hoskin, 1993: 302, note 28), he is



already aware of the danger to reason posed by such splitting. Note the nuanced use of 'I divide myself, as it were, into two persons'; and how he immediately goes on to state that the Agent is 'the person whom I properly call myself'. As he concludes (Smith, 1976: 113): 'But that the judge should, in every respect, be the same as the person judged of, is as impossible, as that the cause should, in every respect, be the same with the effect.' Here he as good as acknowledges that he has, in constructing this new form of self that is rational through being double, uncovered the fact of its rational impossibility. But this does not mean that he has not re-written the self thus.

9. See for instance Thompson (1967), McKendrick (1970), Fleischman and Parker (1991), Hoskin, Zambon and Zan, (1994), Carmona, Ezzamel and Gutierrez (1994), and the discussion in Hoskin and Macve (1988), Appendix A. These organizations all exert forms of time and work-discipline, often with clock-regulated days and the use of overseers, fines, blacklists and beatings: i.e. direct surveillance and punishment, corporal or financial, for transgressions. But this is not a positive shaping of activity for the future. Proposals might be made along such lines, as in Venice where the proposals of the chief accountant, Bartolomeo Taduri, included setting targets for the construction masters, ranking them for promotion, and demoting those who failed to produce quality vessels. But such proposals regularly failed to overcome workforce resistance, as in fact happened in this instance.

## References

- Alpers, S. (1982), *The Art of Describing*, University of Chicago Press, Chicago.
- Burchell, G., Gordon, C. and Miller, P. (eds) (1991) *The Foucault Effect: Studies in Governmentality*, Harvester Wheatsheaf, London.
- Carmona, S., Ezzamel, M. and Gutierrez, F. (1994), *Control and Cost Accounting Practices in the Spanish Royal Tobacco Factory*, Discussion Paper, Carlos III University, Madrid.
- Drew, J. (1947) Manorial Accounts of St. Swithun's Priory, Winchester. *English Historical Review*, 62, pp. 20–41.
- Ezzamel, M. (1994) The Emergence of the Accountant in the Institutions of Ancient Egypt. *Management Accounting Research*, 5, pp. 221–46.
- Fleischman, R. and Parker, L. (1991) British Entrepreneurs and Pre-Industrial Revolution Evidence of Cost Management. *Accounting Review*, 66, (2) pp. 361–75.
- Foucault, M. (1977) *Discipline and Punish*, Allen Lane, London.
- Foucault, M. (1981) The Order of Discourse, *Untying the Text: A Poststructuralist Reader* (ed R. Young), Routledge and Kegan Paul, pp. 48–78.
- Foucault, M. (1984) *Histoire de la Sexualité: vol.2, L'Usage des Plaisirs*, Gallimard, Paris.
- Foucault, M. (1987) What is Enlightenment?, in *The Foucault Reader* (ed P. Rabinow) pp. 32–50, Penguin Books, London.
- Goodhart, C. (1989) *Money, Information and Uncertainty*, Macmillan, London.
- Gwilliam, D., Hoskin K., and Macve, R. (1992) Financial Control in the Financial Services Industry: the Case of Lloyd's of London, *Perspectives on Financial Control* (eds M. Ezzamel and D. Heathfield) pp. 203–28, Chapman and Hall, London.
- Hoskin, K. (1993) Education and the Genesis of Disciplinary: the Unexpected Reversal, in *Knowledges: Historical and Critical Studies in Disciplinary* (eds E. Messer-Davidow et al.) pp. 271–304 University of Virginia Press, Charlottesville.
- Hoskin, K. (1995) The Viewing Self and the World We View: Beyond the Perspectival Illusion. *Organization: The interdisciplinary journal of organization, theory and society*, 2(1) pp. 141–62.
- Hoskin, K. and Macve, R. (1986) Accounting and the Examination: a Genealogy of Disciplinary Power. *Accounting, Organizations and Society* (11) 2, pp. 105–36.

- Hoskin, K. and Macve, R. (1988) The Genesis of Accountability: The West Point Connections. *Accounting, Organizations and Society*, 13(1) pp. 37–73.
- Hoskin, K. and Macve, R. (1994) Writing, Examining, Disciplining: the genesis of accounting's modern power. *Accounting as Social and Institutional Practice* (eds A. Hopwood and P. Miller) pp. 67–97, Cambridge University Press, Cambridge.
- Hoskin, K., Zambon, S. and Zan, L. (1994) Management and Accounting at the Venice Arsenal in the Sixteenth Century: A Case Study. Paper presented at the 17th Annual Congress of the European Accounting Association, April 1994, Venice.
- McKendrick, N. (1970) Josiah Wedgwood and Cost Accounting in the Industrial Revolution. *Economic History Review*, pp. 45–67.
- McNay, L. (1992) *Foucault and Feminism: Power, Gender and the Self*, Polity, Cambridge.
- McReynolds, P. and Ludwig, K. (1984) Christian Thomasius and the Origin of Psychological Rating Scales, *Isis* 75, pp. 546–53.
- Macve, R. (1985) Some Glosses on 'Greek and Roman Accounting'. *History of Political Thought* VI,(1/2) 233–64.
- Rothblatt, S. (1982) Failure in Early Nineteenth-Century Oxford and Cambridge. *History of Education*, 11, pp. 1–21.
- Schaffer, S. (1994) Babbage's Intelligence: Calculating Engines and the Factory System, *Critical Inquiry*, 21, pp. 203–27.
- Smith, A. (1759/1976) *The Theory of Moral Sentiments*. Clarendon Press, Oxford.
- Thompson, E. (1967) Time, Work-Discipline and Industrial Capitalism. *Past and Present*, 38, pp. 56–97.