

WHAT'S HAPPENING TO OUR
UNIVERSITIES?

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Abstract

In recent decades, many universities have been moving in the direction of a more hierarchical and centralised structure, with top-down planning and reduced local autonomy for departments. Yet the management literature over this period has stressed the numerous benefits of flatter organisational structures, decentralisation and local autonomy for sections or departments. What might explain this paradox? And why have academics remained strangely quiet about this, meekly accepting their fate? The paper critically examines the dangers of centralised top-down management, increasingly bureaucratic procedures, teaching to a prescribed formula, and research driven by assessment and performance targets, illustrating these with a number of specific examples. It discusses a number of possible driving forces of these worrying developments, and concludes by asking whether academics may be in danger of suffering the fate of the boiled frog.

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Keywords: universities; managerialism; bureaucracy; assessment; performance indicators; audit culture; boiled frog

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1. Introduction

Amongst academics, one senses a growing dissatisfaction, disillusion or even despair with life in universities (e.g. Burrows, 2012; Gill, 2009; Ginsberg, 2011a; Haack, 2013). In discussions with colleagues from other institutions, virtually all speak of increasing frustration with their university, whether that university is in my own country (the UK), or elsewhere in Europe, or in North America or Australasia. (I am less familiar with the situation in Latin America, Africa and Asia.) All have tales of the latest management idiocy, of some new bureaucratic nonsense, of a patronising instruction as to how to teach, of the latest crude ‘performance target’ they must meet in their research.¹

It is puzzling what might be driving all this. Why, when the management literature of the last two decades has stressed the benefits of flatter organisational structures, of decentralisation and local initiative, of flexible and ‘lean’ systems and processes, have many universities been intent on moving in precisely the opposite direction of greater centralisation with a more hierarchical organisational structure, top-down management and decreased local autonomy for departments, and ever more cumbersome and intrusive procedures? Why, when academics are so quick to criticise other organisations for bureaucratic inefficiency, do we seem so keen on creating ever more exquisite forms of bureaucracy in our own institutions? Why, when the literature on pedagogy points to the dangers of intrusive micro-management, do we believe that teaching to some centrally designed template is the way forward? Why, when it is well known that the application of performance indicators encourages blatant game-playing to maximise one’s ‘score’ on the designated indicators and a neglect of other activities which, however worthy, are not captured by the chosen metrics, do we assume that this approach will result in ever more ‘excellent’ research with ever greater ‘impact’? And, perhaps most surprisingly, why when one could hardly imagine a more intelligent and articulate group, nor one better placed to make its views heard, have academics (with just a few exceptions²) remained so quiet and meekly acquiescent to their fate?³

This article considers four main types of problems relating respectively to top-down university management, bureaucratic administrative procedures, teaching to a prescribed formula, and research driven by assessment and performance targets. The analysis draws upon a range of illustrative examples. It should be stressed that these are real examples based on extensive discussions with numerous academic colleagues from higher education institutions round the world. They should not necessarily be interpreted as a reflection of problems

within my own organisation. The reader will doubtless recognise many of the problems as ones present in some form or another in their particular institution.

In what follows, after a brief review of the literature and what it reveals about the relationship between organisational structure and the performance and effectiveness of organisations, we examine examples of the four types of problems. This is followed by an analysis of the possible causes or drivers of these growing problems, including the search for ever greater 'efficiency', the rise of 'the audit society', the continuing development of 'new public management' (including its digital offshoot – see e.g. Dunleavy et al., 2005), the escalating international competition in which all universities are now drawn, the growth in the numbers of administrative staff, and a number of other factors such as the growing reliance on 'head-hunters' to help fill senior university positions. The article concludes by asking whether academics are in imminent danger of suffering the fate of 'the boiled frog'.

2. Centralised top-down management

Twenty or thirty years ago⁴, many universities were relatively decentralised. University departments, schools, faculties, research centres and other units were granted considerable autonomy with regard to their teaching programmes, student recruitment, research projects and other activities. This is not to imply that such a structure was necessarily 'better', merely that it was different from that encountered today in most universities. The previous structure certainly had its problems, including the emergence of local fiefdoms, lack of consistency in the treatment of students, weak or incoherent research strategies, inordinate amounts of time spent on committees trying to coordinate efforts across departments, and so on. Faced with such problems, the solution seemed obvious to many Vice-Chancellors, Rectors and Presidents – more centralisation combined with stronger and more hierarchical top-down management and more formalised procedures (often involving 'performance management'). Ironically, universities have been moving in this direction at precisely the same time as the management and organisational literature has been increasingly emphasising the benefits of flatter organisational structures, wider spans of control (in particular, taking advantage of the opportunities offered by IT), decentralisation and local autonomy for departments or sections.

Over recent decades, there has been extensive research by management and organisational scholars on the relationship between organisational structure and performance. Much of this has focussed on centralisation, i.e. 'the extent to which decision-making power is concentrated at the top levels of the organization' (Caruana et al., 1998, p. 18). As Zheng et al. (2010, p.765)

recently concluded from an extensive review of the literature, ‘the majority of scholars have agreed that a decentralized organizational structure is conducive to organizational effectiveness’. Burns and Walker (1961) were among the first⁵ to point to the advantages of a decentralised ‘organic’ structure, stressing how this facilitated effective communication horizontally as well as vertically. Later researchers pointed to the benefits of decentralisation in terms of encouraging creativity (Khandwalla, (1977) and generating imaginative solutions to problems (Deal and Kennedy, 1982). Dewar and Werbel (1979) showed how a decentralised structure increased the level of motivation and satisfaction among staff, while Schminke et al. (2000), found that a decentralised structure resulted in increased responsiveness to changes in the external environment.

Over the last 20-30 years of globalisation and growing competitive pressures, there has been increasing emphasis on the ability of organisations to generate and successfully implement innovations, both technological and organisational. Kimberly and Evanisko (1981) were among the first to demonstrate that the adoption of technological and organisational innovation is more prevalent in decentralised organisations. Later, in a very influential meta-review of the determinants of organisational innovation, Damanpour (1991) confirmed the significant negative influence of centralisation and of formalisation on organisational innovation. (Formalisation can be defined as ‘the degree to which decisions and working relationships are governed by formal rules, standard policies, and procedures’ – see Lee and Choi, 2003, p.192; it is discussed further in the next section.)

Later work has shown, firstly, that the importance of decentralisation is even greater for organisations operating in uncertain environments (e.g. Baum et al., 2003; Nahm et al., 2003). Secondly, as we move towards a more knowledge-intensive economy and society, the importance of knowledge management has become all the greater. Various studies have demonstrated that a decentralised organisational structure is more conducive to effective knowledge management. For instance, Nahm et al. (2003) showed that the benefits of decentralisation are all the greater in organisations where there is more learning, more knowledge based work and more knowledge-sharing. Likewise, Pertusa-Ortega et al. (2010) revealed how decentralisation fosters knowledge creation because more individuals become involved in decision-making, generating a greater number and variety of ideas (which may result in the creative integration of divergent perspectives) and helping to ensure the successful implementation of the chosen ideas.

While there are many studies of the relationship between organisational structure and performance in the private sector, there are far fewer on public organisations, and very few indeed focussing on universities. One exception is the study by Cameron and Tschirhart (1992), who concluded that ‘Participative decision processes are more effective than autocratic or centralized decision processes primarily because in a post-industrial environment the need for multiple sources of information and multiple perspectives is escalated’ (p.102). More recent studies have been more critical. Diefenbach (2005), in a case study of the effects of implementation of ‘new public management’ on a major university, revealed fundamental internal contradictions in the approach and noted the ‘cynical use of latest management techniques by senior managers in order to gain more power and control internally’ (ibid., p.126). Nedeva and Boden (2006) analysed the impact of neo-liberalism on universities, identifying the dangers this brings in terms of a loss of capacity to generate ‘understanding’ type knowledge. More recently, By et al. (2008) have argued that

‘the audit culture and managerialism have created an environment that encourages opportunistic behaviour such as cronyism, rent-seeking and the rise of organizational psychopaths⁶. This development will arguably not only lead to a waste of resources, change for the sake of change, further centralization, formalization and bureaucratization but, also, to a disheartened and exploited workforce, and political and short-term decision-making.’ (ibid., p.21).

Given that universities operate in uncertain environments and are centrally involved in the generation, diffusion and application of knowledge, not to mention in nurturing creativity, innovation and problem-solving abilities, there is all the more reason to expect the trend in universities over the last 20 years would have been towards a more decentralised structure. However, the reverse appears to have been mostly the case. Why might this be?

A new Vice-Chancellor, Rector or President (henceforth the term ‘Vice-Chancellor’ is used to cover all these titles for a university head) has generally been appointed to address specific problems and to improve the university’s performance in certain respects (often financial and in terms of its position in various ‘league tables’). Almost without exception, they assume that the ‘solution’ to these problems and challenges involves a more centralised approach to decision-making and running the university. Invariably their plans will include ‘growth’ (they feel it is essential to demonstrate to those who appointed them that numbers have gone up during their period in office, not least to justify the sizeable salary increases they have come to expect as a right), and they may well assume that they have no option but to centralise decision-

making in order to maintain ‘control’ as their university increases in size. Moreover, faced with escalating competition (whether for students, income or league-table positions), they again automatically tend to assume the solution is greater centralisation of decision-making, or perhaps they just lack the self-confidence that a decentralised but well motivated institution can survive in an era of intense competition. Yes, there may well be issues with lower-performing departments that need to be addressed, but surely that does not mean one has to impose a ‘lowest common denominator’ approach across all departments. Different faculties or departments operate in different environments or ‘market niches’, and they may therefore benefit more from the local autonomy to experiment, adapt and evolve, as opposed to having a standard centralised approach imposed from above.

In addition, many new Vice-Chancellors, particularly those appointed from outside that university, reach instinctively for the ‘lever’ of restructuring – merging departments and other units into larger agglomerations of schools or faculties. This has the benefit of resulting in a cleaner, simpler organisational chart, and of fewer individuals reporting to the Vice-Chancellor. Yet there is no rigorous evidence that bigger operating units in higher education institutions are more efficient, a belief with overtones strangely reminiscent of Soviet ideology that scale is the solution. It has often resulted in more layers of hierarchy (deans of faculties, heads of schools, departmental heads, and so on). Over time, there has been a concomitant withering away of consultation. Changes instead tend to be imposed by fiat, often introduced by documents or emails that begin with that ominous Orwellian phrase ‘The University has decided ...’ Such structural changes frequently seem to defy logic. Those upon whom the change is being inflicted are left wondering, ‘If this is the solution, what is the problem that is supposedly being solved?’ There is no apparent awareness within senior management of the potential disadvantages of the new structure, let alone of any balance sheet of the respective pros and cons of the old versus the new structure. All of which has resulted in deteriorating morale and a growing sense of disaffection and even alienation among staff (e.g. Burrows, 2012; By et al., 2008; Gill, 2009).

In the past, prior to a proposed restructuring or any other major management change, there was normally an extensive process of consultation with faculty, for example, with senior university officials attending departmental meetings to explain the problem and the proposed solution, to address any queries and indeed to listen to any alternative solutions. This would then be followed by intensive debate on the university ‘senate’ (or whatever body was concerned with academic governance). Most of this has long since gone⁷, replaced by email directives and summons to attend termly meetings with the Vice-

Chancellor and the senior management team, meetings that essentially take the form of a presentation by the senior managers followed by a couple of desultory questions from the audience on some relatively trivial matter (e.g. car-parking arrangements).

The drift towards centralisation takes other forms. For instance, in the past, departments and other operating units would contain quite a few support staff in the form of secretaries, technicians, librarians, financial administrators and so on. However, for reasons that defy logic (or that at least have not been explained to university faculty⁸), these have often been removed from departments to be installed in central offices. To take one example, in the past most IT staff were 'on the ground'. Since the majority of IT problems turn out to be relatively simple for an expert to resolve, it would previously take them just a few minutes to sort out most such matters. However, once these staff have been centralised, the academic facing an IT problem now needs to go online and submit a request for help (difficult to do if your computer has just crashed!) in order to receive a booking number. If lucky, an IT person may schedule a visit two or three days later, by which time one may have missed a crucial deadline for submitting a research proposal or some other important event.

Similarly, the removal of financial administrators from departments to central offices can increase the delay in submitting research applications (often against tight deadlines), while the centralisation of other administrative staff means that academics inevitably end up doing more things themselves – e.g. photocopying, making travel arrangements – thus lowering their productivity with respect to their core jobs. Moreover, the centralisation of support staff charged with student support can have a negative impact on student satisfaction as central administrators lack the 'local' knowledge required to address many of the needs of students.

In summary, despite the wealth of management literature on the benefits of a decentralised structure, particularly for organisations where knowledge, creativity and innovation are central and for organisations operating in uncertain environments, Vice-Chancellors and their equivalents have, over the last 15-20 years, increasingly assumed that further centralisation is the answer to their particular problems. At the same time, they have mostly failed to explain to their staff what specifically are the goals of that centralisation, why centralisation offers the best means of achieving those goals, and what are the success criteria against which such changes should be judged. In any other organisation, academics would be among the first to ruthlessly expose such failings.

3. Bureaucracy

Universities today operate in a demanding and fast-moving environment, subject to a plethora of pressures, expectations, regulations and laws (Bozeman, 2015).⁹ Yet in responding to these, the tendency among many universities (and perhaps this *is* more pronounced in the UK than elsewhere – see Hoggett, 1996) is to interpret all these over-literally, and to devise some ‘gold-plated’ solution to even a relatively minor problem, so that they can then triumphantly claim to have adopted ‘best practice’. The result is all too often a disproportionate response in terms of greater formalisation and more burdensome bureaucracy (i.e. ‘red tape’ – see Bozeman, 2015¹⁰), with no consideration of the load (particularly the cost in terms of additional time) being imposed on those lower down the organisation expected to comply.

For example, in the case of the UK, and perhaps in other countries as well, government concern with illegal immigrants has sometimes focused on the problem of certain students registering at colleges in order to obtain an entry visa, and then not turning up at that college, but instead disappearing into the general population. This may well be a problem at language schools, lower-level business or administrative colleges and the like. But there is little evidence that it is a significant problem at universities. Nevertheless, many UK universities have responded with gusto. In one case, lecturers suddenly received an email instruction (all too many initiatives these days, especially those of a more difficult or controversial nature, are launched by email – ‘management by email’ seems sadly to have become the norm¹¹) to complete an attendance register in each and every lecture. This ignored the fact that for some courses there may be several hundred students in the lecture hall, so it would take far too long to read out a roll-call. It ignored the fact that such a procedure would be seen as demeaning by students, harbouring resentment among them. The only alternative was to circulate an attendance list for students to tick their names, but it is well known from past experience that lazy students who cannot be bothered to turn up for lectures simply ask a friend to ‘sign’ in their place. Moreover, when faculty members got hold of the relevant report from the immigration body which, according to the university, was the source of this new requirement, there was indeed mention of roll-calls, but only for schools and colleges. Universities were not expected or required to adopt such measures, but merely to report whether, on the basis of *existing* mechanisms, they were aware of any student who had failed to show up.¹² Most academics probably ignored this instruction. Although other emails followed, instructing in ever more strident terms that the procedure be followed, they eventually stopped, leaving a legacy of resentment and a hardening of the division between ‘them’ and ‘us’.

A year or so later, concern had evidently spread to the monitoring of PhD students at UK universities. It was never clear whether this was also due to a worry that some might not be *bona fide* students (even more unlikely at PhD level), or whether it was instead a concern that PhD supervisions resulted in little or no written record and hence were potentially vulnerable to an official complaint or legal challenge from a disaffected student as to whether the doctoral training provided was adequate. Whatever the cause (and the fact it was never explained is symptomatic of the wider problems examined here), various universities decided to introduce a procedure to provide an official record that PhD supervisions had taken place. One university came up with a bizarre solution. Again launched by a collective email, supervisors were instructed prior to each supervision to book a room on the university computerised room-booking service. This was somewhat ironic as a year earlier, in a move towards centralisation, the power to book a room had been taken away from academics (who presumably could no longer be trusted to do this responsibly) and instead concentrated in the hands of a few dedicated administrators. The consequence of this was that few academics now knew how to use the computerised room-booking service. However, the university had thought of this too, and offered the opportunity for all supervisors to attend a training session on how to use this system. No coherent justification was given for this bureaucratically baroque procedure for recording PhD supervisions. There was no recognition that some supervisions are not ‘booked’ in advance – they just happen when a doctoral student knocks on one’s door to ask for advice, or when the supervisor and student bump into each other over coffee. Another fundamental flaw was that the room-booking service could only be used to book designated teaching or committee rooms; many other rooms were not part of the system, so supervisions conducted outside of this – for instance, in the coffee area or over lunch in the cafeteria – were all presumably ‘unsupervisions’ in Orwell’s terminology.

Research ethics is another area where there has often been a process of bureaucratic overkill. For certain specific types of research, it is perfectly right and proper that the principal investigator should go through an ethical review procedure – for example, research involving medical patients or animals, or studies involving vulnerable individuals such as children or illegal immigrants. However, outside these specific areas, for 90 or 95% of research projects there are no significant ethical issues that need to be externally reviewed. (There are, after all, already well-established conventions from professional bodies to guide researchers in dealing with such matters as data confidentiality and anonymity of interviewees.) In response to pressures primarily from medical research funding agencies, many universities have developed a thorough but also extremely complicated ethical review procedure, which they have then

proceeded to apply indiscriminately to *all* research projects. For instance, any project involving interviews is often seen as requiring ethical review, regardless of the fact that most do not involve ‘vulnerable individuals’ but employees of some organisation who are being interviewed by virtue of their position or professional expertise. Those responsible for enforcing such an all-embracing ethical review procedure are apparently unable to conceive of a distinction between ‘vulnerable individuals’ and other interviewees, and hence to come up with a much simpler solution for the latter. Instead, a typical university solution involves completing a multi-page form requiring inordinate amounts of redundant information. To oversee the ethical review process, a large central committee of senior university staff and external members must be set up, along with numerous departmental sub-committees to review the hundreds of cases caught up in this new procedure. Indeed, it may be applied not just to all the new research projects of academic faculty, but also to PhD projects, MSc dissertation projects and even undergraduate dissertation projects. With regard to the last of these, in the past some undergraduates might have carried out a few interviews, for instance, of other students or local businessmen, as part of their dissertation. Now, because any project involving interviews is required to go through the complex and time-consuming ethical review procedure, many may be disinclined to pursue this approach. Likewise, social work students may no longer be encouraged to do field work despite the nature of their future professional responsibilities involving individuals rather different from those described in previous literature.

In short, this is an all-too-typical example of a response to a ‘problem’ that is totally disproportionate to the nature and extent of that problem. The result is a substantial addition to the workload of all those involved, in particular of busy academics who, on the one hand, are being exhorted by senior university management to be more entrepreneurial in bringing in new research funds, and, on the other, are finding themselves beset with ever more bureaucratic hurdles to negotiate. Moreover, in this case as in others, it is by no means clear that such a cumbersome ethical review procedure will actually result in greater attention being paid by academics to ethical issues. Instead, it may encourage a tendency to fill in the forms and then to assume that the problem has ‘gone away’ and is now someone else’s responsibility. In the past, where the occasional ethical issue did arise in a research project, it was normally picked up by the academic involved, who would discuss it with senior colleagues, put in place sensible measures for dealing with it, and then feel some sense of ‘ownership’ in terms of responsibility for ensuring that no ethical problem did in fact ensue. The new approach, by contrast, is more likely to generate a sense of ‘infantilisation’ among academics subject to such disproportionate bureaucratic procedures. Issues to do with ethics and integrity and certainly are certainly of vital

importance, but surely a better approach is one that focuses on training students and early-career faculty to be sensitive in dealing with ethical issues rather than an over-determined approach that tends to exclude ethical judgement.

While the root cause of much of the creeping bureaucracy may be attributed to external requirements, some of it is self-imposed. For example, in days gone by, many decisions with regard to administrative matters relating to teaching could be taken by the individual course convenor or programme director in consultation with the relevant faculty involved. On one occasion, following a switch to require that all courses had to be assessed and not just those later in the programme, a query emerged as to what procedure should be adopted for a student who had just failed the assessment for a particular course in the first term. The director of the teaching programme duly consulted with the other faculty involved, who all agreed the student should retake the assessment by a certain date. However, when the programme director reported to the university that this was the plan, he was informed that such a matter could not be decided in this way. Instead, a formal meeting of the teaching committee must be convened, attended by a quorum of faculty and with the appropriate administrative staff present to take minutes. On turning up for the meeting, for which this was the sole item on the agenda, the faculty were surprised to find not one but five university administrative staff in the room. And instead of the meeting taking a few minutes, as they had envisaged it would, it went on for an hour as the various administrative staff thought of more and more procedural matters that supposedly needed to be addressed. Finally, towards the end, the programme director asked if the same procedure which had just been laboriously agreed over the course of the previous hour could be applied if other students were to fail a course the following term. He was informed that this was not permissible, and that instead the teaching committee would have to be reconvened to consider the same matter all over again.

The reader can doubtless come up with a plethora of other examples where academic activities have, in recent decades, become ever more formalised, complicated, bureaucratic and time-consuming.¹³ Indeed, it is rather difficult to think of a single area of university activity that has become less bureaucratic over time.

4. Teaching

In the past, it was certainly the case that some lecturers were poor. They were not formally trained to teach, and they received little or no structured feedback. Improvements were undoubtedly needed. Yet as with other improvements in universities, often the tendency is to take things too far. The assumption is that if something is good (e.g. training courses), then 'more is better'. However, as with most things, diminishing returns quickly set in, while the costs of yet further 'improvements' rise, not least the burden in terms of time absorbed. Another 'cost' takes the form of increased irritation among university faculty that they are being treated like infants rather than professionals, for example, with regard to patronising instructions over how to use Powerpoint in their lectures. Many meekly go along with the required instructions (for example, that each lecture must begin by outlining the 'learning outcomes'), resulting in a form of 'teaching by template'. However, whether the end result is better quality teaching must be open to considerable doubt.

Those lecturers preparing new courses are likely to encounter particular problems as they wrestle with complex instructions about 'modularisation' and 'credits'. For example, courses or modules can only be a certain 'size' in terms of the number of credits. Those deemed to be too big or too small are forced to become 'the right size' in terms of credits. There may well be some justification for this but, if so, it is known only to central university administrators. Such a change has, like others, often been introduced by fiat, with no prior consultation and no coherent rationale. The result, again, is resentment, cynicism and sullen acquiescence.

In previous years, similar experiences were encountered with 'semesterisation', an ugly neologism typical of the managerialist terminology invoked for changes that lack a credible rationale. In many countries, the academic year has traditionally been divided into three terms, each of 10-12 weeks, although some US universities have long operated on the basis of two 'semesters'. At a certain point, many UK universities decided to move to a system of two four-month semesters. (The fact that a 'semester' is, by definition a six-month period seems to have been overlooked.) This was claimed to be 'better', even though the first semester has to be interrupted by Christmas and New Year holidays, and the second by Easter holidays. Again, there may well have been some explanation for such a change that was known only senior university officials, but the rest of academic faculty were left struggling to think what could be the 'problem' to which two semesters (each fragmented into parts by immovable public holidays) was the 'solution'.

In order to improve the quality of teaching, a process of student feedback has been in operation for several decades. In this, forms are completed by students at the end of each course, and the results passed back to the lecturers involved. In addition, student representatives or departmental teaching committees might pursue the more important issues raised. In recent years, however, various 'new and improved' procedures have been introduced, not least because of the rapid increase in student fees and students hence feeling that they are 'customers' and that 'the customer is king'. In the case of UK universities, there was felt to be a need for a national feedback system. In 2005, the National Student Survey was introduced.¹⁴ As with any new assessment procedure, this quickly affected the behaviour of the system it was monitoring, not always in quite the way intended. Individual universities realised that they needed to ensure a high response rate (a low response rate was self-evidently 'a bad thing') as well as a high proportion of positive responses. As the time approaches when the Survey is to be completed, a sequence of increasingly panicky instructions are sent to lecturers by email (as usual), asking them to do all they can to encourage as many students as possible to complete the form (e.g. by setting aside time in lectures so that they can make sure the students do as they are told, or by offering students some 'incentive' to complete the survey). Lecturers are also expected by university administrators to explain to students that too many negative responses will result in the university looking bad, hence devaluing the standing of their eventual degree in the eyes of employers, while a very positive response, in contrast, will obviously enhance their employment prospects. As a result, it is not clear what significance, if any, can be attached to the results of such a survey.¹⁵ Does a positive evaluation mean that the quality of teaching in a university is high or merely that this particular university has pursued a more aggressive strategy in how it has 'encouraged' its students to provide positive feedback? There must also be concerns about what this particular aspect of 'education' does for the sense of morality engendered in students coerced or nudged into playing the game.

Likewise, it is not clear what significance can now be attributed to the proportion of 'first class' or 'upper second class' degrees that each university awards. In the past, this was used as an indicator of the quality of graduates and the education provided by universities. However, just as the use of exam passes as an indicator of school performance in the UK has resulted in barely credible year-on-year 'improvements', so this university performance indicator has inevitably been the victim of 'grade inflation', with success rates rising year after year (Johnes, 2004, p.472).

In short, a succession of doubtless well intentioned exercises to enhance the quality of university teaching have consumed growing amounts of effort and time, stimulated various forms of game-playing (some involving questionable ethics), and encouraged ‘teaching to a template’ while having little or no benefit in terms of quality of teaching offered to students.

5. Research

As with teaching, it is undoubtedly true that there were problems in the past with university research – for example, research findings that were never published, the lack of a clear, coherent research strategy whether at the level of the department or the university as a whole, even some faculty choosing to do no research and instead concentrating on teaching and a measure of ‘scholarship’ to ensure their teaching was high quality and up to date. Beginning with the UK, many countries have now introduced various forms of research assessment to address such issues. In the UK, the first Research Assessment Exercise (RAE) was conducted in 1986 and since then a further six have been carried out. In the first two or three of these, significant progress was undoubtedly made in tackling the problems identified above. After that, however, diminishing returns began to set in, the ‘easy’ gains having already been made (Geuna and Martin, 2003). At the same time, for each successive RAE, the costs continued to rise inexorably as universities put more and more effort into preparing their RAE submissions in order to do better than their ‘competitors’ – a classic example of the ‘Red Queen’ effect (Van Valen, 1973). In each university, a senior officer (or an entire team) would be designated to oversee the university’s preparations. And in each department or ‘unit of assessment’, one or more senior faculty would be delegated with the task of working with faculty over the years before the RAE submission date to ensure that they each had four good publications ready in time. If the costs of all the time spent on these preparations is added to the direct costs of operating 60 or so panels to assess all the RAE submissions, then the total cost of the 2001 RAE was estimated to be of the order of £100 million (Sastry and Bekhradnia, 2006, p 5). This is a rather expensive solution to the question of how to distribute research funds to 100 or so UK universities. (Other government departments would be rightly ridiculed if they spent a similar sum on a resource allocation decision of this size.)

However, a greater concern is with the longer-term effects on research and on the behaviour of university faculty. First of all, the RAE has over time tilted the balance from teaching to research because improved performance in the latter brings financial rewards but not for the former (although that may change if the proposed Teaching Excellence Framework is introduced in UK universities). In addition, promotion decisions are more likely to be swayed by RAE performance than teaching ability, sending a strong signal to faculty that this is where they should concentrate their efforts. Secondly, given that the RAE has been structured around traditional disciplines, and given that those departments that have been rated most highly by the discipline-based panels are those perceived to have contributed most to the disciplinary mainstream, the RAE and its successor, the Research Excellence Framework, have sent a strong signal that mono-disciplinary is what is most highly valued. The pressures exerted on younger researchers in particular may therefore have skewed their research focus away from interdisciplinary, more heterodox or non-mainstream research, not to mention more risky and long-term research. More generally, the trend has been for researchers to become more compliant with disciplinary authority over time (Martin and Whitley, 2010).

Thirdly, the RAE has narrowed the focus on research publications, even though the outputs of research can take a variety of forms (e.g. trained people, new instrumentation or techniques, presentations at conferences and other meetings, contract research and consultancy), many of which are often as important in terms of transferring ideas or knowledge (Salter and Martin, 2001). Moreover, in the recent Research Excellence Framework (REF) – another term with somewhat sinister Orwellian overtones – the focus in some fields narrowed even further to just articles in ‘leading’ journals, with books, book chapters, articles in ‘lesser’ journals and so on counting for little, irrespective of the quality of research they contain (Martin and Whitley, 2010). Instead, the emphasis is on ‘4* journals’, encouraging a very one-dimensional view of what the work of an academic is all about. Whilst for some fields or certain types of research, these may be the most important outlet for research findings, for others this is far less true. In particular, for interdisciplinary research (or work within a specialty that does not ‘fit’ within one of the established disciplines around which REF panels are organised), for user-oriented research, for long-term and large-scale research where the results can only be conveyed in a book, or for research focussing on a regionally specific topic too ‘narrow’ to be of interest to a ‘mainstream’ journal, in all these cases researchers may again be substantially disadvantaged, just as they were in previous RAEs, despite all the official rhetoric before each new assessment exercise that ‘this time things will be different’. After six failed attempts, it must surely be clear to all that, whatever the good intentions, assessment panels organised on the basis of

traditional disciplines, while they may be reasonably effective at evaluating the research from departments operating within the mainstream of that discipline, are intrinsically incapable of dealing with, and treating fairly, any department or unit operating outside that disciplinary mainstream (Rafols et al., 2012).

The introduction of national research assessment systems, almost invariably organised around disciplines, also means that in the UK and elsewhere, there lurks an inherent fundamental contradiction at the heart of science policy. For 20 years or more, governments have exhorted researchers who are supported with public funding to go forth and find ‘users’ for their research, to ascertain what are the long-term research needs of those users and to factor these into their research agenda at least to some extent, involving those users at an early stage in the research rather than just approaching them in the final stages.

Many academic units have responded to such policies, recognising they had a responsibility to offer something to society in return for public funding of their research. Those that have done so have almost invariably found that this takes them into interdisciplinary research of one form or another. Users’ problems rarely, if ever, come neatly wrapped within a single discipline. The results of such user-oriented research, where they merit academic publication (and not all do), may be suited to specialist interdisciplinary journals, or perhaps to journals in several adjacent disciplines. Then, every five years or so, along comes the Research Assessment Exercise or now REF, and researchers in such interdisciplinary research units are forced to screw themselves up into a single disciplinary pigeon-hole, ready to be assessed by a panel drawn almost entirely from the mainstream of that discipline.¹⁶ Faced with a submission containing publications in specialist interdisciplinary journals and in journals spanning several disciplines, with at best only a small fraction being seen as ‘top’ journals in that particular discipline, the panel will find it very hard if not impossible to award that unit a top grade, even if it is widely regarded as a world leader in its own specialised field.

In an effort to square the circle of pursuing research ‘excellence’ while at the same time addressing economic or societal needs, the recent UK Research Excellence Framework added the assessment of ‘impact’ to the existing assessment of research excellence. While laudable in principle, it immediately raised a new problem. Impact comes in a great variety of forms. Impact for an engineer is very different to impact for a biomedical researcher or a sociologist or a historian. It is far from clear how one can assess impact systematically and rigorously across all fields and across all institutions in a truly comprehensive and reliable manner (Martin, 2011; see also Samuel & Derrick, 2015). As with previous assessment exercises, guidelines were issued and the ‘rules of the

game' kept changing right up to the time of the submissions. Subsequently, there will undoubtedly be widespread criticism of the 'simple-minded' approach adopted, and work will start to 'improve' the assessment of impact in the following REF. REF 2 will consequently be more elaborate, more burdensome and more time-consuming. It will also encourage more sophisticated game-playing. Already, some universities intent on doing well in terms of impact have gone down the route of hiring professionals with expertise in advertising, marketing or PR to help write their 'impact stories', creating a new industry (in other words, the policy for assessing impact has already had an impact of its own, although one doubts whether this was the intended outcome). In order to keep up, other universities will increasingly be forced to do likewise. And so the cycle of ever increasing elaboration and game-playing will be repeated in REF 3 and beyond in a new version of the 'Red Queen effect' (Martin, 2011).

What of the benefits of adding impact assessment to research assessment? While there are undoubtedly some, as researchers and institutions pay more attention to increasing the impact of their research¹⁷, there will also be 'costs'. The response to any attempt to measure impact, however well intentioned, is that those being assessed will inevitably focus their efforts on those forms of impact that are more easily 'captured' through the assessment methodology – to the neglect of all other forms of impact that are too indirect, diffuse, complex or long-term to be readily assessed or measured with some indicator (Bevan and Hood, 2006; McLean et al., 2007). Yet those other forms of impact may be at least as important, if not more so. As Einstein is reputed to have observed: 'Not everything that counts can be counted, and not everything that can be counted counts.'¹⁸ Whether the end-result of all this will be to enhance the long-term benefits from university research to society as opposed to merely channelling research into activities that can be readily assessed must be a matter of some doubt.

In short, while some of the early efforts to improve the 'efficiency' of university research may have resulted in significant gains, attempts to achieve yet further gains have come at a disproportionate cost. Assessment schemes and performance indicators have over time tended to skew research towards 'safe', incremental, mono-disciplinary mainstream work guaranteed to produce results publishable in 'top' academic journals, and away from interdisciplinary and more heterodox, risky and long-term research. They have also generated perverse incentives, encouraged cynical game playing to beat the system, and resulted in various unintended consequences (e.g. to generate more papers, it may be better to collaborate with researchers in other institutions rather colleagues in one's own university – Martin, 2011). In short, after the early benefits had been achieved, repeated and prolonged application of research

assessment and performance indicators may have resulted in a situation where the benefits are now outweighed by all the costs (indirect as well as direct).

6. Discussion and conclusions

From analyses of other sectors (e.g. Bevan and Hood, 2006; Boddy, 2006; Hood, 2007; McLean et al, 2007; Diefenbach, 2009 & 2013), it is clear that the problems discussed above are far from unique to higher education. Similar problems are being encountered in schools, hospitals, the police force and elsewhere. What might be the common driving forces behind all this? One may be the drive for ever greater economic 'efficiency', narrowly defined as more output per unit input, and with little regard for quality or anything else that cannot be measured in simple economic terms. Such an approach may suit organisations whose business model is based on mass production and standardisation but not those based on a more customised approach. As Woodward (1958) showed over 50 years ago, an organisation's choice of 'technology' exercises a significant influence on its organisational structure, with organisations opting to pursue a trajectory based on mass production and standardisation benefitting from greater centralisation and hierarchy, while customised production demands a flatter organisational structure with greater dispersion of control. If universities have decided that in today's competitive climate, they should pursue policies based on mass production and standardisation, then the pursuit of greater centralisation and hierarchy perhaps makes sense, enabling the 'production system' to be more controllable and predictable. However, that is a rather dispiriting view of what universities are all about.

Related to this are the on-going consequences of the process often labelled as 'new public management', with its baleful emphasis on accountability, performance targets and the like, all of which encourages changes in behaviour to maximise one's 'score' according to the designated metrics.¹⁹ In the case of UK schools, for example, the emphasis on league-tables based on the percentage of children passing exams has resulted in 'strategic' decisions by schools as to which exam board offers the easiest curriculum, which subjects have the highest pass rates, which students should be entered or not entered for different subjects, and so on (Hartford, 2012). Whether all this has actually resulted in better school education is unclear. Similarly, in the UK National Health Service (NHS), the political prominence given to performance targets such as reducing waiting lists times has spawned elaborate 'gaming' schemes; for example, patients who are left waiting in ambulances outside the hospital until the Accident and Emergency department is able to see them within the prescribed period; or patients diagnosed as being in need of a particular

treatment who are not placed on the relevant waiting list until sometime later, condemning them to a state of limbo until such time as they can be safely placed on the waiting list without jeopardising the current target for that hospital or treatment (numerous other examples of such ‘gaming’ in the NHS can be found in Bevan and Hood, 2006). Likewise, in the case of the police, only certain types of crimes may be reported, while others may be re-classified so that an improvement trend can be claimed (Coulson, 2009, p.277). Whatever benefits new public management is supposed to bring (and there may indeed be some) need to be set against the deleterious effects and wasted efforts associated with such game-playing. (For a critical discussion of gaming with regard to the application of performance indicators to the management of public services, see Hood, 2006.)

Another wider driving force is linked to globalisation and increasing competition, whether for students, income or faculty. In the case of universities, one way in which this has manifested itself is in the current obsession with international league tables, based on the Shanghai rankings or one of the other sources of such rankings. That the methodology involved in all these ranking is highly dubious is often overlooked. Instead, all Vice-Chancellors, Rectors and University Presidents seem intent on improving the ranking for their university, and doing whatever it takes to achieve this. Because Nobel Prizes feature so prominently in the Shanghai rankings, this can give rise to disputes over which university a Nobel laureate should be credited to. For example, the 2007 Nobel Prize for Chemistry was awarded to Gerhard Ertl, who, according to the official Nobel website carried out his prize-winning research at the Fritz-Haber-Institut der Max-Planck-Gesellschaft, Berlin. However, he had also held a number of part-time or visiting posts with the Free University, Humboldt University and the Technical University of Berlin, who all duly claimed him as their own. Unable to sort out these competing claims, the compilers of the Shanghai ranking had no option but to drop these institutions from their rankings over the following years.

A further factor that appears to be at work is the growing use of head-hunters when a senior post in an organisation is to be filled.²⁰ While the use of head-hunters began in the private sector, by the 1990s the practice had spread to universities, not just for Vice-Chancellors and their deputies, but subsequently also for deans, heads of departments and director of research centres, and later even for professors. Head-hunters have often been used in combination with more traditional approaches of search committees consisting of senior academics and others. The head-hunters, in order to justify the very considerable sums of money they charge for their services, understandably felt they needed to demonstrate their ability to bring other, less obvious candidates

into consideration. Indeed, they then worked hard at the short-listing stage to show that ‘their’ candidates were the strongest. The consequence was often the appointment of an outside candidate, say as a Pro-Vice Chancellor, who probably would not have been appointed through the traditional academic process, and who their previous employers were only too happy to write supportive references for and say ‘goodbye’ to. Coming into a new university environment in which they have no powerbase and where they lacked any understanding of how the organisation operated and of its norms and values, such external appointees have often reacted by making decisions that seem to defy all logic. The more arguments and evidence are used by opponents to point to the flaws in their plan, the more determined they become to demonstrate their authority by sticking to their original plan, however misguided that turns out to be.

Another transformation in universities over the last decade or two is the dramatic rise in the number of central university administrators and ‘support staff’.²¹ Each new initiative launched by senior university officials seems to require more such staff. Once in post, they then have to justify their existence by coming up with new bureaucratic procedures or adding to the complexity of existing ones, whether it relates to teaching or research or the relentless quest for ‘third mission’ funding.²² In the view of some, ‘institutions of higher education are [now] mainly controlled by administrators and staffers who make the rules and set more and more of the priorities of academic life’ (Ginsberg, 2011a, p.1; see also Altbach et al., p.xiii).

All of this raises the question: why have most academics so meekly accepted these developments? Some may be too frightened to voice their concerns publicly, particularly if (like most full professors) they are on performance-related pay. Others may have bought into the ideology that all this constitutes ‘progress’, that such changes represent the only way of addressing the problems and challenges that universities face. (These are likely to include academics who go on to assume senior roles in universities, in which they then actively contribute to inflicting a more managerialist approach on their colleagues.) Most, however, remain baffled and frustrated, feeling powerless to resist²³, not least because they are chronically overstretched with their teaching and research and their administrative responsibilities, all of which leaves no time to mount a coherent opposition.²⁴

An analogy can be drawn with the ‘boiled frog’ (Tichy and Ulrich, 1984, p.60). Experiments by physiologists in the 1870s suggested that, if a frog is placed in a saucepan of cold water that is then very gradually brought to the boil, the frog will not jump out but remain until it is eventually boiled; in contrast, a frog dropped into a saucepan of very hot water will immediately jump out again (Sedgwick, 1882). The empirical truth of this has since been challenged (Gibbons, 2007). Nevertheless, it offers a beguiling metaphor for what we have been witnessing in universities over the last couple of decades. If academics 20 years ago had been suddenly presented with the panoply of changes described above which were to be implemented in one fell swoop, the level of opposition would have been such that the proposed changes would have been thrown out en masse. Instead, however, the changes have been introduced incrementally and by stealth. At each step, academics may have felt: ‘Having already accepted all this, why resist going just a bit further?’

But if academics continue to acquiesce to yet further changes of the type examined here, we risk eroding our sense of integrity, self-worth and dignity, becoming mere cogs in the higher education machine. It is not clear we are yet at the stage familiar to Winston Smith in *Nineteen Eighty-Four* or still some way off, but we are surely heading in that direction.²⁵ The purpose of this article is to promote a debate on these matters. If others share similar concerns, perhaps they will join in that debate. If not, we risk facing the fate of the boiled frog.

Notes

¹ I do not attempt to deal here with another recent and worrying trend in academia, namely that concern with ‘micro-aggression’ and ‘safe space’ has reached such a pitch in many universities that the principle of free speech is in danger of being considerably eroded.

² Prominent exceptions include Diefenbach (e.g. 2005) and Ginsberg (2011a & b).

³ ‘In some [universities], the faculty has already surrendered ... This seemed to be the upshot of a conference on academic freedom and shared governance held in 2009 by the American Association of University Professors’ (Ginsberg, 2011a, p.2).

⁴ In the case of UK universities, a key event was the Jarratt Report (1985), ‘which foisted on the sector the delusion that factory-floor ‘performance indicators’ are entirely suited to a higher-education setting, and which led to the abolition of academic tenure and the concomitant triumph of managerialism in the academy’ (Alderman, 2009; see also Dearlove, 1997). In the US, a key date was 1996 and the publication of the Association of Governing Boards’ (AGB) report *Renewing the Academic Presidency: Stronger Leadership for Tougher Times*, which urged university presidents to ‘resist academia’s insatiable appetite for the kind of excessive consultation that can bring an institution to a standstill’ (AGB, 1996, p.21).

⁵ As discussed later, Woodward (1958) was another early pioneer, showing that, while mass production might benefit from greater centralisation, successful organisations based on batch and customised production generally had a flatter organisational structure with greater dispersion of control.

⁶ Organisational psychopaths are defined as individuals ‘with no conscience ... who are willing to lie and are able to present an extrovert ... charming façade in order to gain managerial promotion via a ruthlessly opportunistic and manipulative approach to career advancement’ (Boddy, 2006, p.1462). A case-study of an organisational psychopath in academia can be found in Diefenbach (2013, pp.152-55).

⁷ In many universities, there has been a process of ‘emasculatation’ of university senates or congregations, which have lost authority relative to university councils or boards (Ginsberg, 2011a, p.15). Ginsberg cites many specific examples of this process.

⁸ Such initiatives may reflect university management's relentless search for ever greater 'efficiency'. Yet what looks like greater efficiency to central management almost invariably means more effort for staff lower down the organisation.

⁹ A survey of 13,000 principal investigators of federally funded research projects in the US found that '42% of their research time associated with federally-funded projects was spent on meeting requirements rather than conducting active research', leaving just 58% for 'active research' (Schneider et al., 2014, p.6). And with regard to teaching, figures quoted in Bozeman (2015, p.11) suggest that a quarter of the tuition fee income for students at US universities may go on 'regulatory compliance' (see also Ginsberg, 2011b).

¹⁰ Bozeman (2015) also includes definitions of, and useful distinctions between, the related concepts of bureaucratisation, formalisation and red tape.

¹¹ 'Management by email' does not yet seem to have been much studied in the management literature; there is certainly no evidence to suggest that it might be effective – rather the reverse (see e.g. Thomas, 2012).

¹² According to the UK Border Agency (2009, p.21), 'a Sponsor must report if a student misses 10 expected contacts. For students in schools, Further Education (FE) and English Language Colleges this will normally be where the student has missed two weeks of a course without an appropriate explanation. In the Higher Education (HE) sector, where daily registers are not kept we will accept this reporting where the student has missed 10 expected interactions (e.g. Tutorials, submission of coursework etc).' In other words, universities are *not* expected to put in place a new system for monitoring attendance at each and every lecture, but merely to report if existing procedures indicate a repeated failure e.g. to submit coursework or attend tutorials.

¹³ In some cases, it is academics themselves who are responsible, for example with demands for more transparency or accountability from senior university management resulting in more formal procedures.

¹⁴ Prior to that, there had been a Teaching Quality Assessment process to evaluate the teaching of departments in UK universities on the basis of set criteria. However, this proved incredibly burdensome, with many person-months of effort being devoted to producing a roomful of written documentation designed more to impress the visiting assessment team than to actually enhance the quality of the teaching delivered. That assessment scheme was eventually abolished. However, in 2015 the UK Government announced their intention to set up a Teaching Excellence Framework (TEF). Although well intentioned, this will doubtless consume vast amounts of bureaucratic effort and encourage new and elaborate forms of game-playing (particularly if the results are used to set the level of fees that individual institutions can charge) but with relatively little benefit to the actual quality of teaching (see the discussion of the Research Excellence Framework in the following section).

¹⁵ For a critical assessment of student evaluation schemes, see Stark and Freishtat (2014).

¹⁶ Indeed, such interdisciplinary researchers may not even be submitted for assessment, thus pushing them towards ever more applied or consultancy-type work.

¹⁷ As with the original Research Assessment Exercise, the initial beneficial effects of adding impact assessment are likely to be much larger than those achieved in subsequent exercises, as diminishing returns set in.

¹⁸ This attribution may be apocryphal. There is some evidence to suggest that the quotation should actually be attributed to Cameron (1963, p. 13).

¹⁹ For a critical analysis of the influence of performance indicators and other mechanisms of 'quantified control' on academics, their activities and their psychological wellbeing, see Burrows (2012).

²⁰ 'In recent years, two-thirds of the presidential searches conducted by large [US] universities have been directed by professional head hunters' (Ginsberg, 2011a, p.5).

²¹ In US universities, administrative positions grew ten times faster than tenured faculty positions between 1993 and 2009 (Campos, 2015). Likewise, in UK universities, the number of managers and non-academic professionals has been growing very much faster than academic faculty, especially in the leading ('Russell Group') universities (Wolf & Jenkins, 2015). Ginsberg (2011a & b) attributes many of today's problems with universities to the dramatic increase in the proportion of administrators.

²² Bozeman (2015) offers an explanation for the growing amount of 'red tape' with regard to one aspect of university work, namely publicly funded research, identifying the main drivers – bureaucratic overlap, response to crises (e.g. the Stanford presidential yacht scandal), and social and political 'side payments' (i.e. 'rules that must be attended to by university researchers and administrators but that do not affect the quality or quantity of scientific work' – *ibid.*, p.26).

²³ This is not to say that there may well be significant passive resistance going on behind the scenes.

²⁴ Psychologists may have something interesting to contribute here. For instance, it may be that a large proportion of academics are of the 'obedient personality' type, while a minority are opportunistic careerists (and a few even organisational psychopaths). There may also be some 'schizophrenics' who as faculty criticise managerialist procedures but who then enthusiastically impose them on others when reaching senior administrative positions.

²⁵ The fact that a British university professor was recently suspended for 'sighing' and 'making ironic comments' certainly smacks of Big Brother (Matthews, 2014).

References

- AGB, 1996, *Renewing the Academic Presidency: Stronger Leadership for Tougher Times*, Association of Governing Boards of Universities and Colleges, Washington D.C.: AGB.
- Alderman, G., 2009, 'Higher education in the United Kingdom since 1945', *Times Higher Education* (30 July) (downloaded on 7 January 2015 from <https://www.timeshighereducation.com/books/higher-education-in-the-united-kingdom-since-1945/407560.article?storycode=407560>).
- Altbach, P.G., Reisberg, L. and Rumbley, L.E., 2009, Trends in Global Higher Education: Tracking an Academic Revolution, report prepared for the UNESCO 2009 World Conference on Higher Education, Paris: UNESCO.
- Baum, J.R. and Wally, S., 2003, 'Strategic decision speed and firm performance', *Strategic Management Journal* 24, 1107-29.
- Bevan, G. and Hood, C., 2006, 'What's measured is what matters: targets and gaming in the English public health care system', *Public Administration* 84, 517-38.
- Boddy, C.R., 2006, 'The dark side of management decisions: organisational psychopaths', *Management Decision* 44, 1461 – 1475
- Bozeman, B., 2015, 'Bureaucratization in academic research policy: perspectives from red tape theory', (downloaded from http://cord.asu.edu/wp-content/uploads/2015/09/0Final_Bozeman_LuganoKeynotePaper2015-2.pdf).
- Burns, T and Stalker, M., 1961, *The Management of Innovation*, London: Tavistock Publications.

- Burrows, R., 2012, 'Living with the h-index? Metric assemblages in the contemporary academy', *Sociological Review* 60, 355-72.
- By, R.T., Diefenbach, T. and Klarner, P., 2008, 'Getting organizational change right in public services: the case of European higher education', *Journal of Change Management* 8, 21-35.
- Cameron, K.S. and Tschirhart, M., 1992, 'Postindustrial environments and organizational effectiveness in colleges and universities', *Journal of Higher Education* 63, 87-108.
- Cameron, W.B., 1963, *Informal Sociology: a Casual Introduction to Sociological Thinking*, New York: Random House.
- Campos, P.F., 2015, 'The real reason college costs so much', *New York Times* (5 April), p.SR4
- Caruana A., Morris M.H. and Vella, A.J., 1998, 'The effect of centralization and formalization on entrepreneurship in export firms', *Journal of Small Business Management* 36, 16-29.
- Coulson, A., 2009, 'Targets and terror: government by performance indicators', *Local Government Studies* 35, 271-81.
- Damanpour, F., 1991, 'Organizational innovation: a meta-analysis of effects of determinants and moderators', *Academy of Management Journal* 34, 555-90.
- Deal, T.A. and Kennedy, A.A., 1982, *Corporate Culture*. Reading, MA: Addison-Wesley.
- Dearlove, J., 1997, 'The academic labour process: from collegiality and professionalism to managerialism and proletarianisation?', *Higher Education Review* 30, 56-75.

- Dewar, R. and Werbel, J., 1979, 'Universalistic and contingency predictions of employee satisfaction and conflict', *Administrative Science Quarterly* 24, 426-48.
- Diefenbach, T., 2005, 'Competing strategic perspectives and sense-making of senior managers in academia', *International Journal of Knowledge, Culture and Change Management* 5 (6), 126-44.
- Diefenbach, T., 2009, 'New Public Management in public sector organizations: the dark sides of managerialistic 'enlightenment' ', *Public Administration* 87, 892-909.
- Diefenbach, T., 2013, 'Incompetent or immoral leadership? Why many managers and change leaders get it wrong', in By, R.T. and Burnes, B. (eds), *Organizational Change, Leadership and Ethics: Leading Organizations /Towards Sustainability*, London and New York: Routledge, pp.149-70.
- Dunleavy, P., Margetts, H., Bastow, S. and Tinkler, J., 2005, 'New public management is dead – long live digital-era governance', *Journal of Public Administration Research and Theory* 16, 467-94.
- Geuna, A. and Martin, B.R., 2003. University research evaluation and funding: an international comparison. *Minerva* 41, 277-304.
- Gibbons, W., 2007, 'The legend of the boiling frog is just a legend' (downloaded from <http://srel.uga.edu/outreach/ecoviews/ecoview071223.htm> on 20 October 2015).
- Gill, R., 2009, 'Secrecy, silence, toxic shame and the hidden injuries of the neo-liberal university', in Gill, R.C. and Ryan-Flood, R. (eds), *Secrecy and Silence in the Research Process: Feminist Reflections*, London: Routledge, pp. 228-44.

Ginsberg, B., 2011a, *The Fall of the Faculty: The Rise of the All-Administrative University and Why It Matters*, Oxford: OUP.

Ginsberg, B., 2011b, 'Administrators ate my tuition', *Washington Monthly* (September) (download on 8 January 2016 from http://www.washingtonmonthly.com/magazine/septemberoctober_2011/features/administrators_ate_my_tuition031641.php?page=all)

Haack, S., 2013, 'Out of step: academic ethics in a preposterous environment' (downloaded from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2135732 on 23 October 2015).

Hartford, J., 2012, 'We don't need no grade inflation', *Spiked* (4 April 2012) (downloaded from <http://www.spiked-online.com/newsite/article/12313#.ViZQo9KrTs0> on 20 October 2015).

Hood, C., 2006, 'Gaming in Targetworld: the targets approach to managing British public services', *Public Administration Review* 66, 515-21.

Hoggett, P., 1996, 'New modes of control in the public service', *Public Administration*, 74, 9-32.

Jarratt Report, 1985, *Report of the Steering Group in University Efficiency*, Committee of Vice-Chancellors and Principals, London: CVCP.

Johnes, G., 2004, 'Standards and grade inflation', in Johnes, G. and Johnes, J. (eds), *International Handbook of the Economics of Education*, Elgar: Cheltenham, pp.462-83.

Khandwalla, P.N., 1977, *The Design of Organizations*, New York: Harcourt Brace Jovanovich.

- Kimberly, J.R. and Evanisko, M.J., 1981, 'Organizational innovation: the influence of individual, organizational, and contextual factors on hospital adoption of technological and administrative innovations', *Academy of Management Journal* 24, 689-713.
- Lee, H. and Choi, B. 2003, 'Knowledge management enablers, processes, and organizational performance: an integrative view and empirical examination', *Journal of Management Information System* 20, 179-220.
- Martin, B.R., 2011, 'The Research Excellence Framework and the impact agenda: are we creating a Frankenstein monster?', *Research Evaluation* 20, 247-54.
- Martin, B.R. and Whitley, R., 2010, 'The UK Research Assessment Exercise: a case of regulatory capture?', in: Whitley, R., Gläser, J., Engwall, L. (Eds.), *Reconfiguring Knowledge Production: Changing Authority Relationships in the Sciences and their Consequences for Intellectual Innovation*, Oxford: OUP, pp. 51-80.
- Matthews, D., 2014, 'Thomas Docherty to face insubordination charge in tribunal', *Times Higher Education* (24 July) (downloaded on 20 October 2015 from <https://www.timeshighereducation.com/news/thomas-docherty-to-face-insubordination-charge-in-tribunal/2014711.article>).
- McLean, I., Haubrich, D. and Gutiérrez-Romero, R., 2007, 'The perils and pitfalls of performance measurement: the CPA regime for local authorities in England', *Public Money & Management* 27, 111-18.
- Nahm, A.Y., Vonderembse, M.A. and Koufteros, X.A., 2003, 'The impact of organizational structure on time-based manufacturing and plant performance', *Journal of Operations Management* 21, 281-306.
- Nedeva, M. and Boden, R., 2006, 'Changing science: the advent of neo-liberalism', *Prometheus* 24, 269-81.

- Pertusa-Ortega, E.M., Zaragoza-Sáez, P. and Claver-Cortés, E., 2010, 'Can formalization, complexity, and centralization influence knowledge performance?', *Journal of Business Research* 63, 310-20.
- Rafols, I., Leydesdorff, L., O'Hare, A., Nightingale, P., Stirling, 2012, 'How journal rankings can suppress interdisciplinary research: a comparison between Innovation Studies and Business & Management', *Research Policy* 43, 1262-82.
- Rip, A., 'The future of research universities', *Prometheus* 29, 443-53.
- Salter, A.J. and Martin, B.R., 2001, 'The economic benefits of publicly funded basic research: a critical review', *Research Policy* 30, 509-32.
- Samuel, G.N. and Derrick, G.E., 2015, 'Societal impact evaluation: exploring evaluator perceptions of the characterization of impact under the REF2014', *Research Evaluation* (April), 1-13 (available online at doi:10.1093/reseval/rvv007).
- Sastry, T. and Bekhradnia, B., 2006, *Using Metrics to Allocate Research Funds*, Oxford: Higher Education Policy Institute.
- Schminke, M., Ambrose, M.L. and Cropanzano, R.S., 2000, 'The effect of organizational structure on perceptions of procedural fairness', *Journal of Applied Psychology* 85, 294-304.
- Schneider, S.L., Ness, K.K., Rockwell, S., Shaver, K. and Britkiewicz, R., 2014, *2012 Faculty Workload Survey: Research Report* (downloaded on 7 January 2015 from http://sites.nationalacademies.org/cs/groups/pgasite/documents/webpage/pga_087667.pdf).

- Sedgwick, W.T., 1882, 'On the variation of reflex excitability in the frog induced by changes of temperature', *Studies from the Biological Laboratory*, Johns Hopkins University, pp.385-410 (downloaded on 20 October 2015 from <http://www.archive.org/stream/studiesfrombiol00martgoog#page/n401/mode/2up>).
- Stark, P.B. and Freishtat, R., 2014, 'An evaluation of course evaluations', *ScienceOpen* (downloaded from <https://www.scienceopen.com/document/vid/42e6aae5---246b---4900--8015-dc99b467b6e4?0> on 7 January 2016).
- Thomas, J., 2012, 'Bully or boss?', *Journal of Case Studies* 30, 44-50.
- Tichy, N.M. and Ulrich, D.,(1984, 'The leadership challenge: a call for the transformational leader', *Sloan Management Review* 26, 59-68.
- UK Border Agency, 2009, *Points Based System: Tier 4 Questions and Answers – Sponsors*, London: Home Office.
- Van Valen, L., 1973, 'A new evolutionary law', *Evolutionary Theory* 1, 1-30.
- Wolf, A. and Jenkins, A., 2015, 'Income and expenditure in the UK university system in the 21st Century: a golden age?', paper presented at the Society for Research into Higher Education Annual Research Conference 9-11 December 2015.
- Woodward, J., 1958, *Management and Technology, Volume 3 of Problems of Progress in Industry*, Department of Scientific and Industrial Research, London: HMSO.
- Zheng, W, Yang, B. and McLean, G.N. ,2010, 'Linking organizational culture, structure, strategy, and organizational effectiveness: mediating role of knowledge management', *Journal of Business Research* 63, 763-71.

